



The Leadership Series

Focus on Patient Engagement



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A Joint Message From NCQA and Pfizer

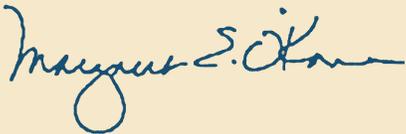
The National Committee for Quality Assurance (NCQA) and Pfizer Inc are pleased to introduce the eighth edition of *Quality Profiles™: The Leadership Series—Focus on Patient Engagement*. The *Quality Profiles* publication series has always had the same primary focus: improving the quality of care by highlighting successful interventions developed by health plans and provider organizations to address gaps in quality and enhance the overall value of health care related to specific diseases or populations. The current edition extends this effort by exploring how programs that enhance patient involvement in care relate to efforts to improve health care. Based on growing evidence demonstrating that providing tools, programs and other means of encouraging and motivating patients to participate in their own care improves quality, we believe this is a critical element in our attempts to close remaining gaps in quality.

The promise of increased insurance coverage and quality provisions included in the Affordable Care Act, plus enhanced use of health information technology promulgated by the American Recovery and Reinvestment Act and other legislation at the state and federal levels, creates an unprecedented opportunity to reduce the gaps in quality, improve patient experience and “bend” the cost curve. But increased insurance coverage and health information technology should be linked to increased consumer-patient participation with the health care system. Areas where greater engagement is needed include obesity, heart disease, diabetes, infectious disease (including vaccinations for children and adults), cancer screening and tobacco use—these constitute some of the greatest health challenges in the United States. Engaged, activated patients, together with supportive and prepared insurance plans and providers, have the potential to create breakthrough improvements in health care quality and health outcomes.

As illustrated by the examples provided in this edition of *Quality Profiles: The Leadership Series*, there is an exciting array of innovative programs through which health plans and providers can work with patients and consumers to find more effective ways of driving greater engagement with the goal of enhancing quality and reducing the burden of chronic disease.

These patient engagement strategies target people across a spectrum of health and in many settings. For people who are well—without chronic conditions or active disease—they can be activities to encourage people to stay healthy through diet, exercise and use of appropriate preventive services. For people with chronic conditions, they can mean improving adherence to recommended screening and treatment through strategies that help people understand the nature of their condition, the reasons for various therapies and consequences of inaction. For people in the position of deciding what therapies (if any) to choose, they can be about learning the advantages and disadvantages of various approaches and about the patient’s own preferences and goals. All of these efforts share the goals of improving population health and patient experience with care and lowering health care cost growth.

NCQA and Pfizer would like this edition of *Quality Profiles: The Leadership Series* to assist clinicians, hospitals, health care organizations, health plans, employers, public purchasers, public health professionals and other stakeholders in gaining important insights into achieving strategic goals through effective programs that increase patient engagement. Through their own initiatives, these organizations will add their experiences to the growing knowledge base of how various approaches to strengthening patient engagement in care improve patient outcomes and increase the value we receive for our health care expenditures. NCQA and Pfizer hope this edition of *Quality Profiles: The Leadership Series* helps in fulfilling the promise of patient engagement in meeting some of the major challenges of health care in the 21st century.



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Supporting Quality Improvement Through Patient Engagement

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Why has patient engagement become an area of increasing interest to providers and the quality measurement community? In addition to the increasing assertiveness of patients themselves, there is growing recognition that responding to and meeting patient needs can improve clinical outcomes, staff satisfaction and business-relevant metrics such as patient loyalty. However, despite much rhetorical reference to patient engagement and patient-centeredness, I think we are just beginning to learn how to operationalize these concepts.

Too often engagement is narrowly defined as either greater out-of-pocket financial responsibility for care or the relatively passive filling out of satisfaction surveys. Both of these have a place, but my sense is that a more meaningful approach involves active participation by patients in their own medical care, and taking a more active and conscious responsibility for the behaviors that connect medical care and other aspects of patients' lives that impact their health, such as diet, drug and alcohol use, sleep habits or exercise. I also think that providers are well served by finding ways to involve patients systematically in evaluating and improving everything from care processes to health care facilities. When measuring outcomes, it is important to remember that there are times when a patient's clinical condition renders him or her a more passive entity to be acted on and for whose behavior a health plan or physician could reasonably be held accountable. However, most of the time, patients are people with free will.

Implementation of patient engagement strategies will not be without challenges. Inherent in these challenges is the tension between evidence-based medicine, which tends to consider a patient as part of a group (e.g., patients with diabetes or patients with heart disease) and focusing on the patient as an individual and tailoring treatment to that individual's needs. The amount of medical care for which we have reliable evidence—particularly at a level of granularity that can take multiple conditions into account—is distressingly small.

Another challenge inherent in implementing engagement strategies is that health care systems have little experience in what we sometimes condescendingly refer to as customer service (and which patients often rightly see as an aspect of quality). Health care organizations usually start with a culture of professional dominance that presumes they know what is best for patients,

and do not have the deep history, orientation or tools that some industries, such as retail and hospitality, use in understanding and responding to their customers.

So what can health care systems do to actively engage patients in their own care? There are a number of organizations that have involved patients in designing processes of care. Eliciting feedback from patients and their families on their care experience, taking systematic measurements of patient experiences, particularly those that can only be reported by the patients themselves (e.g., did they receive and understand medication instructions on discharge from the hospital, etc.) and acting on the results of those measurements are important ways to engage the patient and improve outcomes. In other words, the health care system must know what patients are thinking, and patients need to know that the health care system is not only interested in what they think but will use that information to implement changes that will hopefully result in improvements.

Despite the inherent challenges, many organizations are implementing programs that are either directly or indirectly related to patient engagement. This is not only illustrated by the case studies that are presented in this edition of *Quality Profiles™: The Leadership Series* but also by the work that the California HealthCare Foundation is involved with. Some of our current patient engagement initiatives include supporting Team Up for Health—an initiative to help health systems learn how to partner with patients and families to improve chronic care—and the DiabetesMine Design Challenge, which awards prizes to people who develop new innovations that can help people manage their diabetes. Often these are patients themselves. We also are supporting a project with the American College of Cardiology to help cardiologists comprehend how their patients understand their heart condition and to develop standardized messages using an online platform to help cardiologists explain to their patients how they can manage their own conditions. We also have funded the Center for Health Design, which helps hospitals and clinics, as they are rebuilding, to redesign their facilities using a model that looks toward the future and integrates patients into the planning stages. It is also exemplified by the sold-out status of a recent foundation-sponsored conference on “Transforming Health Through the Patient Experience.”

Increasing patient engagement in health care has the potential to transform the current health care system, particularly in the context of advancements in technology. There are dozens of things that lay people now do for themselves that formerly required a professional. People effortlessly make travel arrangements, research topics of interest and conduct financial transactions—and do them all anytime and anywhere. Therefore, the combination of enabling technology and changing consumer expectations (i.e., patient engagement) may similarly enable patients to do many things for themselves that they are now paying health care professionals to do for them. There is great potential for patient engagement to improve quality of care, and it is important that the health care system works toward achieving that goal.

Introduction

Quality Profiles™: The Leadership Series

Supporting the Health Care Industry

Quality Profiles: The Leadership Series is the result of a collaborative effort by two organizations—the National Committee for Quality Assurance (NCQA) and Pfizer Inc—that share a deep and profound interest in promoting quality health care. Pfizer has long supported NCQA’s commitment to offer resources to health care organizations and other interested stakeholders that reinforce its efforts to promote and improve quality of care.

There has been increasing recognition that fundamental transformation of the health care system in the United States is needed to reduce health care costs and improve patient outcomes. This is supported by the results of a 2010 survey by The Commonwealth Fund that indicate the United States’ health care system is the most expensive but ranks last on several outcome dimensions, including quality, access, efficiency, equity and healthy lives compared with Australia, Canada, Germany, the Netherlands, New Zealand and the United Kingdom.¹ As illustrated in

this publication, there are several organizations in the public and private sector striving to improve health care in the United States along these and other outcome dimensions.

This eighth edition of *Quality Profiles: The Leadership Series* focuses on patient engagement. There are a variety of ways in which patients and their families can become engaged in care. Activities encouraging healthy people to stay healthy can be targeted to those who are well and do not have chronic conditions or active disease. Strategies to improve adherence to therapy can be targeted to those with chronic conditions. For those patients who may be in a situation in which they need to decide on a treatment approach, strategies can be targeted to patients and providers to aid them in the decision-making process. By highlighting successful ways organizations have designed and implemented engagement strategies, we hope this edition of *Quality Profiles* will help stimulate more initiatives to improve patient engagement and drive quality, patient-centeredness and efficacy.

Evolution of *Quality Profiles: The Leadership Series*

Quality Profiles: The Leadership Series has explored many facets of improving quality from delving into issues that affect the health of patients with chronic diseases—cardiovascular disease, diabetes and depression—to showcasing practical ways to address the unique health needs of specific patient populations, such as older adults and particularly those with multiple chronic conditions. Realizing the importance of positive lifestyle choices to enhance health, a recent edition explored what health plans, employers and others are doing to encourage wellness and prevention. In a similar vein, the 2008 edition addressed tobacco dependence and offered evidence-based interventions to encourage smoking cessation. The 2009 edition focused less directly on patient care and more on incorporating various forms of health information technology to facilitate improvements in quality of care.

This edition focuses on the importance of patient engagement and its potential to improve quality of care. The responsibility for engaging patients in their own health care is shared among many entities, including providers, institutions, employers, health plans, public health professionals and public purchasers. This edition highlights ways in which organizations are developing patient engagement strategies so that practitioners and patients are able to work together, resulting in a more patient-centered approach to care and better outcomes.

A Snapshot of the Profiles

In *Quality Profiles: The Leadership Series—Focus on Patient Engagement*, we provide comprehensive descriptions (Profiles) of six initiatives that demonstrate advancements in the delivery of quality care through the design and implementation of patient engagement strategies and highlight key components of four additional initiatives (Quality Lessons). The format of the Profiles is designed to make them easy to understand, adapt and implement. The comprehensive Profile descriptions include any or all of the following:

- Background
- Overview
- Initiative Development
- Initiative Implementation and Rollout
- Challenges
- Outcomes
- Lessons Learned
- Future Directions

The initiatives highlighted in this edition were selected through a review process led by NCQA.

Expert Advisors

To obtain input on the most important issues surrounding patient engagement, Pfizer and NCQA enlisted experts in this field. These highly qualified individuals provided their expertise by critically reviewing and refining the content contained in this edition.

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NCQA and Pfizer: The *Quality Profiles* Partnership

Quality Profiles: The Leadership Series has been developed as a resource for organizations undertaking quality improvement activities. It provides the rationale for improvement and examples of challenges and successes of specific initiatives. The series is the product of a partnership between two organizations that share a deep commitment to advancing quality in health care.

NCQA is a private, nonprofit organization dedicated to improving health care quality. NCQA accredits and certifies a wide range of health care organizations and recognizes physicians in key clinical areas. NCQA's Healthcare Effectiveness Data and Information Set (HEDIS®) is the most widely used performance measurement tool in health

care. NCQA is committed to providing health care quality information through the Web, media and data licensing agreements to help consumers, employers and others make more informed health care choices. For more information, visit <http://www.ncqa.org>.

and

Pfizer Inc is the world's leading research-based biopharmaceutical company, which partners with health plans, medical groups and other health care organizations to facilitate clinical excellence and improve outcomes. Pfizer has also long been a supporter of NCQA and its mission to improve the quality of health care.

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Patient Engagement: A Strategy to Improve Health Outcomes and Quality of Care

Introduction

The primary purpose of the health care system in the United States is to provide all Americans with access to care that is safe, effective and affordable. However, the system as it exists today does not deliver on that promise.¹ Furthermore, increasing pressure is being put on health plans and providers to decrease costs while still achieving the goals of improving quality of care and health outcomes. To improve on the system, how care is delivered must undergo fundamental change and will need the combined efforts of patients, health care organizations and professionals, community members, payers, suppliers, government organizations and other stakeholders.¹

Improving the health care system may involve changes in the delivery of health care and changes in behaviors that people undertake to maintain their health and manage their own conditions if they become sick. Patients are an important and much-needed partner in health care.¹ As recently discussed in a report published by the Centers for Advancing Health (CFAH), two-thirds of American adults are unable or unwilling to consistently fulfill the requirements necessary to fully and

effectively participate actively in their own care.^{2,3} Greater participation in health care can be especially challenging for the elderly or those individuals who are already ill or disabled. It can also be hard for those who do not have the knowledge, skills or resources to understand and fulfill the demands placed on them.³

The potential of efforts to improve care will only be achieved with increased engagement of individuals (i.e., patient engagement). Health care professional organizations, consumer advocates, health plans, hospitals and government agencies can play essential roles in supporting individuals' engagement in their own health care and in producing better tools to support engagement and ensure that health care is accountable to the individual.³ Patient engagement is also a strategy for improving quality of care while decreasing costs and reducing disparities.

The Profiles and Quality Lessons in this edition of *Quality Profiles™: The Leadership Series* are examples of some innovative efforts to increase patient engagement. However, more work is needed to develop new strategies and to evaluate the impact of current strategies on health outcomes.

Definition of Patient Engagement or Activation

Because the concept of patient engagement is still relatively new, there is no single definition. Patient engagement and patient activation are terms that are often used interchangeably. The terms engagement or activation may be used to describe patients who are more involved in improving their health and participating in their care. The terms may also be used to describe the actions taken by health plans, providers, private organizations, governmental agencies or academic institutions to encourage patients to participate in their own health care. For example, the CFAH defines patient engagement as “actions individuals must take to obtain the greatest benefit from the health care services available to them.” This definition refers to direct actions taken by patients, and those actions and level of understanding are needed for managing and preventing diseases.² Similarly, patient activation is defined as understanding one’s role in the care process, and having the knowledge, skill and confidence to carry out that role.⁴

Why Are Patient Engagement Strategies Important?

It is hoped that increased patient engagement will help in achieving the goal of improved health outcomes. The National Priorities Partnership has identified four major goals which may aid patients in becoming more engaged in care¹:

- Reduce harm by improving patient safety
- Reduce disparities by developing tools and strategies that take cultural issues into account
- Reduce disease burden by providing patients with programs that teach problem-solving and self-management skills
- Reduce waste by providing patients with the information they need to make informed decisions about care. Patients who receive this type of decision support often make more conservative (and less costly) decisions about their health care.

What Are the Goals of Patient Engagement Strategies?

One of the primary goals of patient engagement is to contribute toward the overarching goal of patient-centered care. Delivering patient-centered care that respects patients' preferences, needs and values is a becoming a higher priority for health care organizations.¹ The National Institute of Health is developing a Patient-Reported Outcome Measurement Information System (PROMIS[®]) that will measure patient-reported health status. PROMIS[®] uses a question format to measure what patients are able to do and how they feel. This type of data can provide additional insight into how various treatments might affect what patients are able to do and the symptoms they experience. Once the system is operationalized, practitioners and providers will be able to use data obtained through it to deliver care that is more patient-centered. The data can be used to design treatment plans and improve communication to aid in the management of chronic diseases.⁵

Another primary goal of patient engagement is improved outcomes and reduced costs.¹ This goal is important due to the rising costs of health care in an environment where purchasers, health plans and providers have limited budgets.⁶ Patient engagement efforts also aim to improve patient knowledge and increase self-efficacy (the belief that one has the ability to adopt certain behaviors).^{1,6}

What Are the Primary Patient Engagement Elements?

Certain behaviors are expected of an engaged or activated patient. The CFAH created an Engagement Behavior Framework, which organizes 42 patient behaviors identified as being central to engagement in 10 categories and outlines what behaviors are expected of an engaged and activated patient²:

- 1. Find safe and decent care:** Find a provider who meets the patient's performance and cost criteria
- 2. Communicate with health care practitioners:** Ask questions and get clarification on anything the patient doesn't understand
- 3. Organize health care:** Make appointments, provide insurance documentation, provide medical history and get test results
- 4. Pay for health care:** Compare insurance options, gather and submit proper documentation, determine cost of treatment and submit payment
- 5. Make good treatment decisions:** Gather expert opinions, discuss risks and benefits with provider and decide on a treatment plan together
- 6. Participate in treatment:** Fill prescriptions on time, monitor symptoms and ensure that follow-up treatment is received
- 7. Promote health:** Identify services to improve health and follow diet and exercise plans

- 8. Get preventive health care:** Get vaccines and determine with provider which early screening tests are appropriate
- 9. Plan for the end of life:** Discuss with health care provider and family, create advance directives and file durable medical power of attorney for health care
- 10. Seek health knowledge:** Assess risks for disease, understand chronic conditions and know personal health targets

Research shows that when patients are less engaged or activated it is often because they feel overwhelmed with the task of managing their health, that they lack knowledge and confidence in their ability to manage their health and health care and have limited problem-solving skills. Effective strategies to engage the “unengaged” should focus on these barriers to greater involvement in care.^{4,7}

How Can Health Care Providers and Health Plans Support Patient Engagement?

Patient engagement can be supported through the implementation of the following:

- 1. Better tools for patients:** Electronic, Web-based and print tools that patients can easily use have the potential to help them become more involved in their own care. Tools that include self-management systems, electronic personal health records and patient portals can be effective.^{3,8} Many patients with chronic conditions sometimes or often leave a doctor’s office or hospital feeling confused about what they should do.³ Patients also need tools that provide accurate information and guidance while they are making health care decisions. This information must meet the various language and literacy needs of a diverse population.³
- 2. Care that is more accountable to patients:** Updated and improved accreditation standards or quality performance measures can be adopted to demonstrate an organization’s willingness and ability to engage patients and provide them with necessary tools and resources. These standards should continually be reviewed and updated by the organization, creating a new process for accountability related to how provider performance affects engagement behaviors. These new standards would aim to improve interactions among individuals, creating more effective use of health care resources by patients.³

Conclusion

The goal of patient engagement is to improve health outcomes, but many patients lack the knowledge, skill and confidence to become active participants their own health care. Tools and resources that address these barriers, and health care providers, health plans, private organizations and governmental organizations that develop and implement strategies to aid patients in becoming engaged in their own health care, will continue to advance the state of health care quality and help to improve health outcomes.

When patients are provided with support and resources that increase their confidence, knowledge and skills, they are more likely to be empowered and motivated to participate in making lifestyle choices and health care decisions that may lead to improved health outcomes. When patients, providers, plans, and private and governmental organizations work together to facilitate patient engagement, improvements in quality of care and health outcomes may be achieved.

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Advancing Patient Engagement

Introduction

People choose to engage in behaviors that may have a significant impact on their health and requirements for care.¹ People may engage in unhealthy behaviors (e.g., poor diet, lack of exercise or smoking). They also may try untested or potentially harmful interventions and may not adhere to their doctor's advice or recommendations. Engaging patients more actively in their own health care may have the potential to improve health outcomes. Increasing patient engagement strategies may also have the effect of decreasing service utilization and costs while aiding the delivery of more patient-centered care by health care practitioners.² There is an increasing expectation for patients to become active participants in their own care. However, more than half of Americans have passive attitudes toward their own health care or lack the basic knowledge and self-confidence to participate in their own care.³ Understanding a patient's level of activation or engagement allows health care plans and providers to tailor their support to patients, so that they can meet them "where they are" and encourage them to take steps toward further engagement.⁴

Government payers, national organizations and health plans/systems have instituted policies, designed tools and implemented initiatives to encourage and guide patients in becoming more engaged in their own personal health and the health care system.⁵ An increasingly prominent example of such an initiative is the Patient-Centered Medical Home (PCMH), an evidence-based and practice-based model designed primarily to deliver patient-centered care within a framework that engages patients and their families.⁶ The PCMH will be discussed in more detail later in this chapter.

Federal Initiatives Designed to Encourage Patient Engagement

The Affordable Care Act

The passing of the Affordable Care Act (ACA) (also sometimes referred to as Health Care Reform) in March 2010 has many implications for patients, health care practitioners, systems and payers.^{7,8} Currently, up to 32 million Americans are

unable to obtain health insurance because they cannot afford premiums or insurers deny coverage due to poor health status or preexisting conditions.⁹ Under the ACA, many of them will be able to obtain health insurance and have greater access to health care services. However, insurance alone does not guarantee access to services or improved care quality. Additionally, access is only one factor leading to improved health outcomes for individuals or the country as a whole. Active patient participation is necessary to achieve the maximum benefits of access to health care.^{3,10}

The ACA has several key provisions that encourage or require higher levels of patient engagement. These provisions include (but are not limited to) the following:

1. Encouraging patients to take part in preventive care. The law eliminates co-pays for all recommended preventive care for patients of all ages. This became effective for all new plans beginning on or before September 23, 2010.^{11,12} The law also provides for Medicare coverage of an annual wellness visit that will provide a personalized prevention plan. This plan will include a health risk assessment that is completed before or as part of the visit with a health professional and may include the establishment of or update to the patient's medical history, a list of the health care providers that are regularly involved in providing care to the patient, findings of a routine physical exam, detection of any cognitive impairment

and the furnishing of personalized health advice or referrals as appropriate.¹¹

2. Arming patients with the information to make informed choices. The law calls for the development of a national Web site that allows individuals to identify affordable insurance coverage options. The site (<http://www.healthcare.gov>) was launched in the summer of 2010 and allows people to search for private insurance plans, public programs and community services that are available to them in their state.^{11,13} In addition, starting in 2014, states will sponsor health insurance exchanges to foster competition among plans on cost and quality, including rating health plans and furnishing this information to patients choosing among health plans offered in the exchanges.^{9,11}

3. Creating the Center for Medicare and Medicaid Innovation (CMMI) to develop projects that use decision aids. The CMMI is part of the Centers for Medicare & Medicaid Services. The purpose of the CMMI is to test innovative payment and service delivery models to reduce program expenditures while preserving or enhancing the quality of care.¹¹ One of the tasks of the CMMI is to assist patients in making informed health care choices by paying providers of services and suppliers to use patient decision-support tools, which are designed to improve patient and caregiver understanding of medical treatment options.¹¹

4. Providing incentives for prevention of chronic diseases for Medicaid beneficiaries.

Grants will be awarded to states to carry out initiatives to provide incentives to Medicaid beneficiaries who successfully participate in a program to prevent chronic diseases and who, on completion of participation, demonstrate changes in health risk and outcomes, including the adoption and maintenance of healthy behaviors. These behaviors include smoking cessation, weight control or reduction, lowering cholesterol, lowering blood pressure and avoiding the onset of diabetes or improving the management of diabetes if it is already present.¹¹

The law's elimination of copayments for preventive services may help to reduce the gaps in preventive care, but it is unlikely to eliminate them entirely. Awareness of the recommendations for and benefits of preventive care, in addition to the lack of co-pays to receive such care, may help to increase patient engagement in this area. One area which illustrates this is adult vaccination. Although the Centers for Disease Control and Prevention recommends that adults aged 19 and older receive immunizations against 14 infectious diseases as appropriate, most adults do not receive them.¹⁴ For example, the herpes zoster vaccine is recommended for adults aged 60 and older to reduce the risk of shingles and its associated pain. However, only about 7 percent of adults in this age group have received the vaccine.¹⁵

The two primary factors attributed to adults not receiving the recommended vaccines are the costs and lack of awareness or misconceptions on the part of patients. Patients are not well-informed about the need for vaccines, and doctors often fail to recommend and directly offer the appropriate vaccinations to their elderly and high-risk patients.^{16,17} In a 2007 survey, the National Foundation for Infectious Diseases found that many patients were unaware of the need for or benefit of vaccines in adults¹⁶:

- 40 percent felt it was unnecessary to be vaccinated as adults because they were vaccinated as children.
- 18 percent thought that adults do not require vaccines.
- 34 percent were not concerned about catching diseases that can be prevented by vaccines.
- 32 percent were not concerned about spreading an illness to friends, family and coworkers.
- 25 percent thought diseases prevented by vaccines were not serious or life threatening.

The same survey revealed patient concerns about costs¹⁵:

- 26 percent thought vaccines were too expensive.
- 27 percent thought vaccines were not covered by insurance.

- 22 percent indicated they would not seek vaccination if they had to pay for it.

A survey of elderly patients found that, among those who reported receiving an influenza vaccination, nearly all stated that their doctor recommended the vaccination. The survey also found that patients who had lower vaccination rates were more likely to have misconceptions about vaccinations (i.e., that it is possible to contract influenza from the vaccine itself). Therefore, education to dispel myths about adverse reactions to the influenza vaccine is needed.¹⁸ Pharmacists also play a significant role in increasing vaccination rates, as noted in a study showing that influenza vaccination rates of elderly patients were significantly higher in states in which pharmacists could provide vaccines compared with states in which pharmacists could not provide vaccines.¹⁹

These results strongly suggest that patient education, overcoming misconceptions and outreach will be key to increasing patient engagement in preventive care along with expanded insurance coverage. The following Quality Lesson illustrates an initiative designed to improve vaccination rates through patient engagement and outreach.

QUALITY LESSON

Improving Flu and Pneumonia Vaccination Rates Through Patient Engagement and Outreach

Background

Many adults in the United States do not receive an annual influenza vaccination. In one of the highest-risk populations, people aged 65 or older, only approximately 65 percent get the influenza vaccine.¹ In an attempt to address this issue, UnitedHealthcare implemented the 2010 Flu and Pneumonia Campaign during the 2010–2011 flu season. This program was designed to increase influenza and pneumonia vaccination rates in older adults by increasing awareness of the disease and the importance of the associated vaccines, and increasing access to and availability of the vaccines.

Description

UnitedHealthcare provides coverage to over 70 million members across the United States. Its Flu and Pneumonia Campaign was implemented from October 1, 2010, through March 1, 2011, and was applicable to members of all ages. However, because members 65 years of age and older are at increased risk for flu-related complications, the campaign was particularly focused on this population.

Research has demonstrated that consumers often have more interaction with their pharmacists than with their primary care physicians, and also have the highest level of trust in their pharmacists when it comes to issues related to their health care.² Consumers often favor health care services that are provided at locations that are part of their everyday routines, such as pharmacies or supermarkets. To ensure convenient access to vaccinations, the National Ancillary Team (NAT) contracted with several large pharmacy/supermarket chains to provide influenza vaccinations to UnitedHealthcare members. Because it is important for members over the age of 65 to receive the influenza and pneumonia vaccinations, the NAT also ensured that a subset of these pharmacy/supermarket chains would also provide the pneumonia vaccination. In addition, the health plan's pharmacy benefit manager (PBM) contracted with pharmacy chains beyond those approached by the NAT to provide flu shots to UnitedHealthcare Medicare members across the country, thereby further increasing accessibility to these services.

QUALITY LESSON (cont'd)

To reach its target audience, UnitedHealthcare implemented various patient engagement tactics. Member postcards and telephone reminders were sent out in three different languages (English, Spanish and Mandarin) encouraging members to receive their recommended vaccinations. E-cards that included a hyperlink to a Web page housing information about where members could obtain their vaccinations, and general information on influenza and pneumonia, were e-mailed to members. In addition, for every mail-based prescription that was sent out in November and December through the health plan's PBM, an informational 500- to 600-word flyer containing information on the importance of receiving the influenza and pneumonia vaccinations was included with the prescription, and a listing for a toll-free flu hotline. When a UnitedHealthcare member called the flu hotline, he or she was provided with a prerecorded listing of all participating pharmacies in his or her area. UnitedHealthcare also provided members with links to the American Association of Retired Persons (AARP) and SecureHorizons® Web pages that contained information on prevention, treatment, complications, risk categories and participating pharmacies in their geographical region. In addition to patient outreach and engagement, UnitedHealthcare ensured that its own

business segments were providing consistent messaging to its members. To facilitate this collaborative effort, UnitedHealthcare created a National Strategy Workgroup that incorporated representatives from Clinical Quality from Medicare, Medicaid and Commercial Pharmacy, Networking & Contracting, Disease Management and Customer Services. This helped align UnitedHealthcare with national contracting strategies and maintain regular communication as interventions were implemented.

Ultimately, through the implementation of these methods, the goal of the program is to increase influenza and pneumonia vaccination rates among the target population, thereby decreasing inpatient costs related to pneumonia and other complications.

Outcomes

UnitedHealthcare is in the process of analyzing the results of this program by reviewing the 2010–2011 Consumer Assessment Health Plan Survey. Although the results have not yet been finalized, UnitedHealthcare was able to track the number of immunizations provided to its members at participating pharmacies and can report that over 100,000 members received this service.

Conclusion

By implementing an influenza and pneumonia vaccination campaign, UnitedHealthcare was able to increase member access to vaccinations at local pharmacies and supermarkets, which created an ideal setting to improve vaccination rates. As a result, this program has the potential to reduce flu-related complications, such as hospitalizations and death, and decrease inpatient costs. UnitedHealthcare plans to implement a similar intervention in the upcoming 2011–2012 flu season.

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The American Recovery and Reinvestment Act of 2009

The Health Information Technology for Economic and Clinical Health (HITECH) Act, enacted as part of the American Recovery and Reinvestment Act (ARRA), promotes the adoption and meaningful use of health information technology. A component of the HITECH Act that impacts patient engagement, albeit in a more indirect way, is the provision for meaningful use of electronic health records (EHRs).^{20,21} A priority for meaningful use of the EHR includes empowering patients to take a more active role in their health care. Patients can receive electronic copies of their medical records and share their health information with their families. The EHR can also support better follow-up information for patients and their families.²² Other direct benefits to patients and caregivers result from the use of the EHR, including specific tools and services

Direct Patient and Caregiver Benefits for Meaningful Use of EHR²²

- Patients will have access to their personal health information.
- Discharge instructions will be provided by hospitals.
- After-visit summaries must be provided following an office visit.
- Providers will have the patient's history before the clinical visit.
- Patients will be able to order prescriptions even before leaving the provider's office.
- Information will be more easily shared among providers leading to better coordination of care.
- Reminders for preventive and follow-up care must be provided.

that may assist patients in engaging in their own health care.²²

The U.S. Department of Health and Human Services

The U.S. Department of Health and Human Services (HHS) and several of its agencies provide a variety of tools and resources to encourage patient engagement. The HHS itself maintains two Web sites with a variety of tools and resources for patients that promote engagement.

One of the Web sites run by the HHS is <http://www.healthfinder.gov>. Its primary purpose is to provide patients with resources covering a vast array of health topics. These resources are developed by more than 1,600 nonprofit and government organizations.²³ The home page of the Web site has a feature called "Quick Guide to Healthy Living," which features five different topics of interest that scroll from one to the next. Patients can click on one of the five highlighted topics or a link taking them to a series of archived topics.²⁴ From the home page, patients can find the latest health news, access personal health tools, find services and information and access health-related e-cards. Some of the information on the site is also available in Spanish.²⁴

The other Web site maintained by the HHS is <http://www.healthcare.gov>. It provides a variety of tools and resources to help patients find and compare insurance options; learn about prevention; compare care quality of hospitals, nursing homes and dialysis

care facilities and learn about the ACA. It should be noted that this Web site does not include information about health plans or physicians. The top of the Web site's home page has tabs that direct patients to the specific type of information they are looking for.²⁵ Also available on the home page are sections containing written and video-based information on specific topics relevant to either the Web site itself (e.g., there is a video "tour" of the Web site to show visitors where specific information is located) or to specific articles on care-related topics such as prevention, insurance and health care laws (i.e., the ACA).²⁵

The Agency for Healthcare Research and Quality (AHRQ) is an agency of the HHS responsible for improving the quality, safety, efficiency and effectiveness of health care for all Americans.²⁶ AHRQ maintains a Web site for providers and organizations interested in enhancing patient engagement (and other innovative practices) called the "AHRQ Health Care Innovations Exchange" (<http://www.innovations.ahrq.gov>). The purpose of the Exchange is to promote new and innovative activities and strategies among providers of health care and includes profiles of innovations on a variety of topics, including those designed to promote patient engagement.²⁷

The Innovations Exchange has the following components²⁷:

- **Searchable innovations.** These are searchable profiles of innovations that were either successful or attempted.
- **Searchable quality tools.** These are tools that can be used to assess, measure, promote and improve the quality of health care.
- **Learning opportunities.** Resources are available to describe the innovation and adoption processes and ways to enhance the willingness of an organization to adopt innovative approaches to care.
- **Networking opportunities.** Visitors to the Web site can interact with the people who developed the innovations and the organizations that adopted them to learn new approaches and share information.

AHRQ is authorized to conduct research to compare the effectiveness of different tests and treatments. The purpose of such clinical effectiveness research is to assist patients, clinicians, purchasers and policy makers with making informed decisions to improve personal and public health. Beyond AHRQ's work in clinical effectiveness research, the ACA created the Patient-Centered Outcomes Research Institute (PCORI). This Institute will be funded by a tax paid by Medicare and by all private insurance companies and will, therefore, not be subject to the congressional budget process.²⁸ The PCORI is governed by a board of directors, whose composition includes the director of AHRQ or a designee.²⁹ One of the functions of the PCORI is to "assist patients, clinicians, purchasers and policymakers in making informed health decisions by advancing the quality and relevance of evidence." The PCORI will evaluate primary research and disseminate the findings to clinicians,

patients and the general public.²⁸ It is hoped that the information can then be used to guide shared decision making.

A committee associated with the HHS, the National Vaccine Advisory Committee (NVAC) was established in 1987. Its purpose is to advise and make recommendations to the Director of the National Vaccine Program on matters related to program responsibilities.³⁰ NVAC has engaged the community in health care issues by seeking input from the public regarding the scientific research agenda being developed by the Centers for Disease Control's Immunization Safety Office (ISO), specifically focusing on their views on and priorities for vaccine safety research. The ISO's draft scientific agenda and addendum were posted on the Internet and the public had a designated time frame to provide feedback. Comments were solicited from members of the general public and health care practitioners, academicians and policymakers.³¹ The ISO Scientific Agenda was reviewed and approved by the HHS in February 2011 and includes recommendations for research and general recommendations. The prioritization criteria on which the recommendations were based included significance of the exposure to a vaccine, prevalence of the adverse health event following immunization, public concern, scientific concern and degree to which further study is warranted, impact on policy and feasibility of the study.³²

National Organizations Focusing on Promoting Patient Engagement

Several national nongovernmental organizations are encouraging patient engagement through a variety of initiatives.

Robert Wood Johnson's Aligning Forces for Quality

Aligning Forces for Quality (AF4Q) is the Robert Wood Johnson Foundation's signature effort to improve the overall quality of health in targeted communities, reduce racial and ethnic disparities and provide models for national reform. AF4Q has four specific areas of focus³³:

- Performance measurement and public reporting
- Patient engagement
- Quality improvement
- Equity

AF4Q believes that individual patients and consumers (defined as individuals purchasing health insurance versus using health care) are able to become more engaged in their own health, particularly with regard to demanding a higher quality of health care. However, the engagement of diverse patient and consumer groups within entire communities is an area in which there is little practical experience. One of the goals of AF4Q is to work to gain such practical experience. The organization feels that if understandable information about the quality, access to and cost of health

care is more easily obtained, consumers and patients (among other stakeholders) will understand what they need to obtain quality health care and make better, more informed choices about their own health care. AF4Q notes that a successful engagement strategy will allow patients and consumers to³³

- Understand their risks or actual conditions and take actions to manage them
- Understand and make informed treatment choices
- Understand the difference between good care and bad care, and demand good care
- Advocate for public reporting by hospitals and doctors on nationally recognized indicators of quality care
- Choose practitioners based on information about their ability to deliver care

AF4Q emphasizes that setting up a “consumer versus practitioner” dynamic is not the goal of patient engagement. The goal is creating an understanding of how better information for practitioners and consumers can improve the quality of care. It is important that consumers, patients, practitioners, health plans, public health experts and employers all gain this understanding and have an active role in improving the quality of health in their communities. AF4Q uses a wide variety of community-based activities whose purpose is to encourage patients to make informed choices and take an active role in their own care. This includes learning about their own health and making informed decisions using

information about the performance of health care providers.³³

The 17 AF4Q communities have built initiatives around a core, multistakeholder leadership alliance working to advance the goals and activities of AF4Q at the local level. These alliances include participation from physicians, nurses, patients, consumers and consumer groups, purchasers, hospitals, health plans, safety net providers and others.³⁴ The communities were encouraged to focus on two initial patient-engagement areas/topics—self-management and promoting increased awareness of provider performance reports—to enable consumers to exercise choice.³⁵

Some of the key challenges faced by the alliances during the first 1–2 years included

- Differing definitions of patient engagement³⁵
- Skepticism that investing time and resources in developing strategies to engage patients will have any benefits³⁵
- More completely motivating the health care community to adjust to patients who are more engaged, informed and enabled with regard to the process of health care delivery³⁵

The review of the experience of the alliances during the first 1–2 years of their existence identified various implications for moving the cause of patient engagement forward. It is likely that successful patient engagement initiatives will go through

substantial customization in development and execution for each locality, due to the fact that policymakers and community leaders have differences in opinion regarding the definition and priorities of patient engagement.³⁵

Foundation for Informed Medical Decision Making

The Foundation for Informed Medical Decision Making is a not-for-profit organization whose mission is to help people understand the choices they have with regard to their health. It also aims to assure that people have the facts needed to make informed decisions that impact their health and well being. The Foundation focuses on four main areas: decision support, research, outreach and demonstrations.³⁶

Since 1989 the Foundation has been developing tools to aid patients making decisions about their health and medical care. All patient decision aids are evidence based, unbiased and of high quality. The Foundation is committed to keeping all of the patient decision aids current, and its library of tools contains over 30 decision topics, which pertain to many of the major medical decisions that patients in the United States will face.³⁶

The decision-making tools are developed using systematic reviews of scientific and medical evidence and information obtained from patient focus groups and interviews designed to gain the perspectives and preferences of the patient. A variety of tools are available in a number of categories,

including chronic conditions, end of life, screening programs, women's health programs, heart disease, breast cancer, mental health, orthopedic, back care and prostate. By providing patients with information from an evidence-based and patient-preference perspective, care becomes more patient focused and allows for a more effective conversation between patients and their health care practitioners.³⁷

Patient Engagement Strategies Implemented by Health Plans and Health Systems

Health plans and health systems employ a variety of methods to increase patient engagement. This section contains a general overview of patient engagement strategies currently being used by health plans and health systems and outlines selected strategies developed and implemented by specific health plans and systems.

Interactive patient tools available on many health plan Web sites provide a variety of ways in which patients can engage in their own health. Visitors to the health plan Web sites can search for practitioners, hospitals or care facilities and, in most cases, for specific health information. They can read articles containing the most up-to-date news on a variety of health conditions written in patient-friendly language. Many of the health plan Web sites provide risk assessment tools to allow individuals to determine their risk for a variety of

conditions, which they can then discuss with their health care practitioner.

Access to a personal health record (PHR) via these portals provides patients with better access to their own personal health information and can empower them to manage their health, health care and health care costs.³⁸ Information can be gathered from across the spectrum of care, including physician offices, lab tests, diagnostic centers and pharmacies. Users can enter their own information, including family history or use of over-the-counter medications.³⁹

A national health plan recently conducted a study of PHR use among its members, tracking the number of Care Considerations (alerts and reminders informing people about potential health issues and ways to improve their health based on their health profile) issued to PHR users versus the number of Care Considerations issued to non-PHR users via other means. A PHR user is a member of the plan who actively uses a PHR. The study found that

- PHR users received 30 percent and 57 percent more Care Considerations compared with two nonuser control groups.
- PHR users took action on 56 percent and 68 percent more Care Considerations than two nonuser groups.

The results of the study also showed that Care Considerations generated by self-reported information are six times higher for PHR users compared with the nonuser group, suggesting that members who use

their PHR are receiving more information about the ways they can work with their physicians to improve their health.⁴⁰

Other methods of patient engagement used by plans include (but are not limited to) the following:

- Internet-based radio shows hosted by a medical expert during which listeners can submit questions to the host electronically, which are then answered on air
- Podcasts and blogs maintained by specialists related to a particular preventive or therapeutic area
- Social media and applications for mobile devices
- Onsite (e.g., in the office or provider location) computer stations where patients can receive information and provide information to their practitioners via completion of a survey
- Educational mailings such as brochures or newsletters
- Health coaching

The Role of the PCMH in Patient Engagement

The PCMH is a model of primary care that uses a systems-based approach designed to provide patients with primary care that is coordinated, comprehensive, easily accessible and patient-centered. A framework has been proposed that identifies opportunities for engaging patients in the design and

functioning of the PCMH in three contexts: individual patient care, practice improvement and policy design and implementation.⁶

Engaging patients primarily relates to involving patients directly in their own care. To effectively engage patients in their own care, plans and providers need to first actively elicit the views and preferences of patients and their families and incorporate those views and preferences into a shared care plan. Four key areas for engaging patients and their families in this context are communication and information sharing, self-care, decision making and safety.⁶

Engaging patients in practice improvement involves having them participate at some level in the design, evaluation and improvement of the delivery of care within individual practices.⁶

Table 1 provides examples of strategies to engage patients and their families in the context of their own care, practice improvement and policy design and implementation within the context of the PCMH.⁶

A comprehensive review of the rationale and evidence for patient engagement in these three areas of the PCMH can be found in the AHRQ publication entitled “Engaging Patients and Families in the Medical Home,” available at the following Web link: <http://pcmh.ahrq.gov>.

Conclusion

Numerous government and private organizations are stepping up to meet the challenge of providing patients with the tools they need to become active participants in their own health care. Evaluating the impact of these strategies on health outcomes is a vital next step toward the ability to design and implement new strategies (and improve on existing ones) that will have the potential to be even more effective in engaging patients.

Table 1. List Framework for Patient and Family Engagement in the Medical Home⁶

Patients and Families Engaged in Their Own Care

Communication and Information Sharing

- Learn about how the practice works
- Discuss roles with team
- Get help with organizing and coordinating care

Self-care

- Work with team to set self-care goals
- Get help with managing chronic illness
- Participate in activities to reduce health risks
- Participate in peer support groups

Decision Making

- Use evidence-based decision aids
- Discuss risks and benefits of different options
- Decide jointly with the health care provider on a treatment

Safety

- Review medical information and treatment results with the clinician or practice team
- Share information about medications and treatments received in other settings
- Report on adverse events and potential safety problems

Patients and Families Engaged in Practice Improvement

- Participate in quality improvement activities
- Participate in patient/family advisory councils or other regular meetings
- Provide feedback through surveys
- Help in development of patient materials
- Participate in focus groups
- Do “walk-through” to give staff a patient perspective of practice work flow

Patients and Families Engaged in Policy

- Serve on policy and quality improvement committees for various private and public initiatives
- Gather input from other consumers
- Participate in design of medical home or other demonstration projects
- Participate in training for practice teams

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Patient Engagement Strategies

Introduction

There are many strategies that have been identified that aim to increase patient participation in health care. These strategies include those that directly engage patients and families in their own care and those that engage patients in practice improvement. In this chapter, we will review some strategies that are being implemented with the goal of increasing patient engagement and improving outcomes. These include health coaching (specifically tailored to a patient's level of activation), motivational interviewing, shared decision making and shared medical appointments. We will also provide examples of attempts to involve patients in practice improvement, including focus groups and surveys such as the Consumer Assessment of Healthcare Providers and Systems (CAHPS®) (which provide feedback on health care) and participation in advisory groups or medical organization boards.

Strategies to Engage Patients in Their Own Health

Overview

Informed patients can evaluate insurance and health care practitioner options and organize information. These patients are better equipped to make complex lifestyle and medication use decisions while patients who are not engaged may experience suffering, preventable illnesses and suboptimal outcomes and cannot use resources efficiently.

A number of strategies and tools can increase engagement and improve patient's confidence, knowledge and skills, and also facilitate improved communication between patients and their health care practitioners during office or hospital visits. As has been shown in some cancer patient populations, written information, including educational brochures, can help patients better understand and manage their symptoms. On their own, these brochures have not been shown to have much impact on patients, but when combined with a practitioner

consultation, they can improve a patient's experience and in certain cases may lower health service resource use.¹ In one study patients who received an educational booklet before hip surgery were less anxious when admitted to the hospital. These patients were more likely to practice physiotherapy exercises before their hospital admission, which resulted in less of a need for physiotherapy and occupational therapy exercises while in the hospital.²

Web sites can help increase patient knowledge and studies have shown that their utilization can improve self-efficacy and health behavior. Decision aids can help improve patients' knowledge about treatment options and facilitate shared decision making. Educational programs can help improve patients' self-care and self-management of chronic diseases. Programs supported by practitioners result in improved outcomes for patients with depression, eating disorders, asthma, diabetes and hypertension.¹ Some studies have found that educational interventions varying from written materials alone or in combination with other teaching methods can increase knowledge and reduce patient anxiety.^{1,3}

Self-Management Strategies

It has been shown that patients who employ self-management strategies, including the utilization of health care information and partnering with health care practitioners are more likely to manage their weight and exercise regularly. Patients who use

self-management strategies may avoid exacerbations or setbacks of their illnesses, which in turn may help them avoid unnecessary treatments and hospitalizations.⁴

Self-management programs can teach patients valuable problem-solving skills and improve health care outcomes.⁴ Research by Judith Hibbard, an expert in the area of patient engagement, has demonstrated that an increase in patient activation (patient knowledge, skill and confidence in self-management) results in an increase in self-management behaviors.⁵ For example, a study of a community-based self-management program for Hispanic patients found that those who participated in the program demonstrated improved health status, health behaviors and self-efficacy. They also had fewer visits to the emergency room.⁶

Some self-management skills that can be taught to patients include disease-related problem solving, managing medications, relaxation techniques, exercise, management of emotions, communication skills and use of community resources.⁷

Motivational Interviewing

Motivational interviewing is a provider-driven strategy that employs a patient-centered counseling technique designed to elicit behavior change by resolving patient's ambivalence. It is a directive, goal-oriented approach that may increase patient participation in his or her own care.⁸

Motivational interviewing is founded on a number of key principles.⁸

- 1. Motivation to change is elicited from the patient, and not imposed:** The patient’s values and goals are identified to encourage change; techniques, including coercion, persuasion and confrontation are not used.
- 2. It is the patient’s task, not the counselor’s, to articulate and resolve his or her ambivalence:** Counselors facilitate the expression of the patient’s ambivalence and help guide the patient toward an appropriate solution.
- 3. Direct persuasion is not an effective method for resolving ambivalence:** Persuading patients to change is generally not helpful and can increase patient resistance.
- 4. The counseling style is generally a quiet and eliciting one:** A slow and passive approach can result in better outcomes than aggressive approaches, which can result in patient change before he or she is ready.
- 5. The counselor is directive in helping the patient to examine and resolve ambivalence:** Counselors elicit, clarify and help resolve a patient’s ambivalence.
- 6. Readiness to change is not a patient trait but a fluctuating product of interpersonal interaction:** Patient resistance is a sign that a counselor is overestimating a patient’s readiness to change and will need to alter his or her strategy.

7. The therapeutic relationship is more like a partnership or companionship than expert/recipient roles: Patients have freedom of choice and control over their behavior; motivational interviewing is not a technique “used on people” but rather a directive, interpersonal approach.

In a pilot study of motivational interviewing in adolescents with diabetes, the intervention group demonstrated increased glycemic control in contrast with the comparison group. During the study, mean hemoglobin A1C (HbA1C) levels decreased from 10.8 percent to 9.7 percent in the intervention group and were lower after the study. Patients participated in a self-administered questionnaire, and the results indicated that there was a reduction in the patient’s fear of developing hypoglycemia and diabetes was perceived as being easier to live with. The results demonstrate that motivational interviewing may be a useful intervention in improving glycemic control in adolescents with diabetes and could be used to elicit behavior change in other situations.⁹

Health Coaching

Health coaching, which can include motivational interviewing, is another intervention designed to increase patient participation and has been shown to expand patient knowledge and help recall information.^{1,10} Health care practitioners can use the Elicit-Provide-Elicit technique to

assess what information a patient already knows and provide additional information that the patient does not know.¹⁰

Elicit: Find out what the patient already knows by asking him or her directly

Provide: Fill in the gaps and correct any misconceptions the patient may have

Elicit: Find out what this information means to the patient's life¹⁰

Health coaching strategies have been evaluated in several studies. A controlled, randomized trial evaluated factors that affect enrollment and retention rates in different coaching programs. Patients participated in either a traditional work site health program or an activated consumer program. There was also a group of patients who participated in a personal development education program. The study determined that different factors affect enrollment versus retention in coaching programs. Factors impacting enrollment included industry type, patient activation and smoking status. Program retention varied by industry type, age and sex. Enrollment and retention rates are not usually treated as separate issues by health care practitioners. Therefore, different strategies are needed to improve patient enrollment and patient retention in health coaching programs.¹¹

Another approach that has proven effective is coaching specifically tailored to the patient's level of activation. Tailoring would involve developing care plans to encourage low activated patients to make "small step" changes and to aid higher activated patients

in focusing on the challenges of staying on track with their self-management behaviors. The small steps for the less engaged patient provide the opportunity for the individual to experience success, which is one of the key ways in which people gain confidence.¹²

In one quasi-experimental design study carried out as part of a disease management program, health coaches used the patient's activation score to tailor support. Health coaches were trained and provided guidelines to customize telephone coaching based on the patient's activation level. The encouraged behaviors for each activation level were based on empirical data indicating what is realistic at a particular level of activation. The goal was to ask patients to do things that they could succeed at, allowing them to begin to build confidence in their ability to manage their health.¹²

Health coaches worked with low activated patients to make small changes in their existing behaviors, such as reducing meal portion sizes, taking the stairs at work or reading food labels at the grocery store. These patients were also coached on how to ask questions in the medical encounter. Health coaches working with higher activated patients encouraged the adoption of a "full" behavior (e.g., 30 minutes of exercise three times a week) and the development of skills for relapse prevention and handling new or challenging situations as they arise. Health coaches serving the control group did not have access to their patient's activation scores and were not trained in interpreting and using the activation score for coaching.¹²

The findings showed significant improvements in activation scores, adherence to treatment, clinical indicators (e.g., blood pressure and low-density lipoprotein) and reductions in utilization in the form of lower emergency room use and fewer hospitalizations during the six-month intervention. These improved outcomes were in comparison with those receiving “usual care coaching.”¹²

In another randomized clinical trial, the effect of integrative health (IH) coaching strategies on patients with type 2 diabetes was studied. In IH coaching, the patient is considered the expert on strategies, rather than the health care practitioners, and the patient is able to set the pace of the coaching. The patient is also able to establish goals aligned with his or her own personal values. The coach helps elicit ideas from the patient and ensures that the patient remains motivated, committed and accountable. During this trial, patients participated in 14 coaching sessions via telephone. Patients’ self-reported medication adherence was greater compared with the control group, along with patient engagement and behavior, perception of illness, psychosocial measures and lower HbA1C values. The results of this study indicate that IH coaching strategies can be used by diabetes educators to improve patient self-efficacy, accountability and clinical outcomes.¹³

The following Profile illustrates how health coaching and motivational interviewing were incorporated into a program for patients with chronic obstructive pulmonary disease to engage patients and encourage behavioral changes that could improve health outcomes.

Profile: Use of Respiratory Therapists as Health Coaches Within a Comprehensive COPD Initiative

Background

Chronic obstructive pulmonary disease (COPD) is a leading cause of morbidity and mortality in the United States.¹ As such, much effort has been expended to discover and examine novel methods for improving the day-to-day management of COPD. Self-management of COPD can play a large role in patient outcomes associated with this progressive disease. Encouraging self-management has led to a reduction in use of health care services, such as hospital admissions, emergency room visits, unscheduled physicians visits and improved health status.² In recognition of the improved outcomes associated with this level of patient engagement, BlueChoice® HealthPlan of South Carolina expanded its Great Expectations® COPD disease management program to improve COPD diagnosis and management among its members. In doing so, BlueChoice® HealthPlan simultaneously improved its Healthcare Effectiveness Data and Information Set (HEDIS) COPD rates.

Overview

BlueChoice® HealthPlan has developed a strong focus on enhancing patient-centered models of care for members with COPD. The health plan currently serves more than 205,000 members and maintains a focus on preventive medicine, early disease detection and prompt treatment. However, the organization saw an opportunity to improve diagnosis and management of patients with COPD by expanding the program to include more focused patient engagement strategies. Using the COPD HEDIS measures introduced in 2006 and 2007 as a basis for measurement of success, the organization targeted its efforts on implementation of additional patient-centered interventions.

The expanded components of the COPD program outlined below were implemented in August 2006 and the initiative continues to be in place at BlueChoice® HealthPlan. The number of eligible members identified was 1,744. Twenty-three members (1.3 percent) opted out of the program and 1,721 members (98.7 percent) enrolled in the program.

The health plan began by targeting physicians because they have more frequent interaction with plan members and can help increase members' knowledge and self-efficacy. Copies of the Global Initiative for Chronic Obstructive Lung Disease (GOLD) guidelines and pamphlets containing information on spirometry were sent out to BlueChoice® HealthPlan providers. More recently, BlueChoice® HealthPlan further expanded this component so that whenever a Health Network Service representative visits a physician's office, copies of these materials are given to the physicians. Additionally, should a patient be sent to the emergency room (ER) or have a hospital admission, the health plan sends out a letter informing the physician of this occurrence and includes these materials in the mailing. The GOLD guidelines not only educate the provider, but they also remind the physician to educate or follow up with the patient.

All new COPD program members receive a COPD questionnaire (see Appendix 1), which the plan uses in a manner similar to a health risk assessment. These members have the opportunity to provide information about their medical history, current medications and anything else they would like to share about their COPD. To engage and promote health behavior changes in plan members, the program sends out quarterly mailings to its members. The purpose of this mailing is to highlight various issues central to COPD diagnosis and management, such as the importance of medication adherence and spirometry testing. BlueChoice® HealthPlan also has additional information available on

its Web site and has recently begun sending out educational materials via e-mail. Further, semiannual newsletters are sent to members, in addition to an annual respiratory calendar with information specific to staying on track with prescriptions, eating well on a budget, COPD awareness, the cost of smoking and successful goal setting. When members are taken to the ER or have a hospital admission, they are sent a letter prompting them to follow up with their primary care physician. By providing members with additional information regarding COPD and appropriate disease management, they have the means necessary to become an active participant in their health care.

Additional patient engagement activities, such as health coaching and motivational interviewing, were incorporated into the COPD program to further engage members and encourage behavioral changes that could improve health outcomes. The health plan's respiratory therapists function as health coaches. Specifically, a health coach works with members to set personalized goals and then maintains contact during the year to answer any questions members may have and to encourage them to actively manage their health. Readiness to change and motivational interviewing techniques are used to help members overcome barriers to goal attainment, seek appropriate medical care, medication adherence and more. Member contact by health coaches occurs via telephone and, in each of the last three years, health coaches have spoken with more than 1,000 members with COPD.

New initiatives to further member engagement beyond phone calls have been implemented. BlueChoice® HealthPlan is increasing involvement in educational health fairs in the local area and at employer work sites to increase face-to-face time with members. The plan has also partnered with the South Carolina Asthma Alliance and has begun performing spirometry at events held by that group. To ensure that the program is meeting the needs of the members, patient satisfaction surveys are sent out to them to obtain feedback. (see Appendix 2).

Initiative Development

BlueChoice® HealthPlan decided to implement this expanded program to achieve higher rates of COPD diagnosis and an improvement in COPD management among its members, using the COPD HEDIS measures to assess outcome. Because the COPD program had already been developed, and this initiative was an enhancement of that program, obtaining buy-in to expand the program was not difficult. After obtaining buy-in from internal senior management, the Clinical Quality Improvement Committee was approached to gain insight on how to best undertake the expansion. The physicians on the committee provided feedback regarding items they felt should or should not be included in the initiative.

Initiative Implementation and Rollout

Because this was an extension of a program that was already in place, BlueChoice® HealthPlan had its staffing needs met when it expanded. One of the main

resources needed for successful program implementation was access to well-trained staff, such as information technology professionals and respiratory therapists. The information technology staff is responsible for completing the health plan's data pulls, which identify new members for the program from claims, apply risk stratification criteria to program members monthly and identify new instances of ER visits and in-patient admissions daily. Each year, data are compiled and analyzed for the plan's annual outcomes assessment. Regarding the health coaching and interviewing components of the program, BlueChoice® HealthPlan maintains three full-time and one part-time registered respiratory therapists. The respiratory therapists are extensively trained by BlueChoice® HealthPlan on how to fulfill their roles as health coaches. In 2007, BlueChoice® HealthPlan implemented an internal health coaching program to train these staff members when they are hired, and to continue their training through the use of refresher courses offered several times a year. External experts with knowledge in motivational interviewing are brought in to lead training sessions, and one of BlueChoice® HealthPlan's employees is a nationally certified professional coach who also assists with training courses on a quarterly basis.

Challenges

There were several challenges faced when developing the COPD program, but one of the main issues was engaging members via phone. This continues to pose a challenge for BlueChoice® HealthPlan, because often the

organization does not have accurate phone information on all members. To address this, BlueChoice® Health Plan tries to obtain phone numbers from physician offices and online resources and by sharing information with its team of inpatient nurses.

Outcomes

BlueChoice® HealthPlan’s COPD-related HEDIS measures improved over the three-year period from 2007–2010. (Table 1). Specifically, the use of spirometry testing in the assessment and diagnosis of COPD increased 31.3 percent from 2007–2010. From 2008–2010, systemic corticosteroid use and bronchodilator use increased by 53.1 percent and 23.1 percent, respectively. Through the use of this program, members with COPD have been diagnosed and managed more effectively by their health care providers and have received educational and coaching support from the respiratory therapists. These changes have resulted in a reduction

of ER and inpatient hospitalization events, and improved pharmacotherapy use. Notably, from 2008–2009, hospital admissions decreased by 26.2 percent, average length of stay decreased by 24.4 percent and ER visits decreased by 9.9 percent. Overall, 95 percent of plan members with COPD who were surveyed rated the program well, demonstrating a high-level of member satisfaction.

Lessons Learned

One of the most important lessons learned through the COPD disease management program was the necessity of collaboration with physicians, senior management and information technology staff when undertaking a large program expansion. Collaboration from the outset helps to facilitate effective interaction with members and health care providers. Patients sometimes need specialized care beyond the scope of the program.

Table 1. HEDIS Measures From 2007–2010

Measure	BlueChoice® HEDIS 2007	BlueChoice® HEDIS 2008	BlueChoice® HEDIS 2009	BlueChoice® HEDIS 2010	2010 South Atlantic Average	2010 National Average	2010 90th Percentile
Use of Spirometry Testing in the Assessment and Diagnosis of COPD	32%	37%	38%	42%	38%	39%	48%
Pharmacotherapy Management of COPD Exacerbation—Systemic Corticosteroid Use	NA	49%	68%	75%	64%	66%	76%
Pharmacotherapy Management of COPD Exacerbation—Bronchodilator Use	NA	65%	65%	80%	73%	77%	85%

To address these needs, weekly internal case management meetings are held that involve the medical director, nurse case managers, respiratory therapists, behavioral health specialists and any other necessary care providers on staff. Further, they learned that after providing members with education regarding best practices, members are often more willing to be proactive and discuss health-related issues, such as appropriate screening and medications for their condition, with their physician.

Future Directions

Although the initiative is still underway, BlueChoice® HealthPlan is looking to partner with its pharmacy benefits manager to improve identification of specific members for a targeted medication adherence program.

This would broaden the scope of the project and aim to further improve outcome measures.

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The following Quality Lesson describes an initiative designed by a health plan to improve the health of its members using a personalized health coaching program.

QUALITY LESSON

Improving Patient Health Through the Use of Health Coaching Programs

Background

Health coaching can be an effective way to encourage patients to take an active role in managing their health. When executed correctly, it can improve overall health outcomes while simultaneously reducing excessive health care utilization and costs. A growing number of health organizations are implementing the health coaching strategy. Medica Health Plans' Health and Wellness Coaching Program is one example. Having recognized deficiencies associated with traditional disease management programs, such as failure to motivate the patient to properly manage his or her disease and inconsistent communication with the patient, Medica has chosen to employ 28 health coaches to guide and assist over 4,000 of its members who could benefit from additional support. By placing more emphasis on patient motivation, self-care and confidence building, Medica has established a practice that achieves more dramatic, long-term effects among its members, including improvements in self-perceived health status, quality-of-life scores and patient biometrics.

Description

Medica Health Plans, based in Minnesota, developed its personalized health coaching program to influence the behavior of its individual members. The program started by hiring and training health coaches, drafting and finalizing a standard operating procedure and developing outreach materials and assessment criteria. A pilot of the program, during which only a few patient groups had access to the program, preceded the full launch, which occurred four months later. Communication strategies to increase awareness of the program included flyers, e-mails, online information, member newsletter, membership mailing, interviews by the local media and presentations at a forum for Medica's brokers that coincided with the program's launch date. These efforts were targeted at Medica members, employers, government agencies such as the U.S. Department of Health and Human Services (HHS) and the general public; the HHS was included because the targeted population was also enrolled in the Minnesota HHS' managed care programs.

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QUALITY LESSON (cont'd)

The health coaching process begins by identifying members who could benefit most from this program, including those whose lives are significantly affected by disease and are, therefore, potential high-cost utilizers of health care services. Medica uses The Johns Hopkins ACG® System for this purpose, an algorithm that determines which members fall into risk categories based on claims and health risk assessment data. The majority of members identified are those who suffer from serious chronic illnesses such as diabetes, depression and hypertension.

An identified member receives a personalized letter describing the program and how to use it, accompanied by an inspirational, handwritten note from a health coach. This initial outreach is followed by two or three phone calls to further encourage the member to participate and alleviate any concerns.

If the member indicates that he or she would like to proceed, a 20-minute interview is conducted to establish the member's current level of motivation to actively manage his or her health. This initiates the relationship between the member and the health coach, which is maintained for an average of six months. A nonjudgmental, empathetic approach is used during all discussions pertaining to the member's lifestyle and

health choices, allowing the member to choose the direction of the conversation and focus on what is most important to him or her. By revolving the discussions around a topic chosen by the member, rather than a health coach or clinician, the team can work more effectively to create realistic and personalized short- and long-term goals, while increasing the member's confidence in his or her ability to self-manage. This same principle is also applied to other aspects for the coaching program. For example, a coaching work book provided to participating members encourages and facilitates self-directed care in which the member sets his or her own goals and pace for care.

The member's involvement in the program usually ranges from 3 to 18 months, depending on the member's individual needs. Members typically rely more heavily on their health coach in the earlier stages of the program, having fewer conversations as they gain more confidence in their own decision-making abilities.

Outcomes

Of the 600,000 eligible members, about 20 percent chose to participate in the health coaching program. The remaining 80 percent declined due primarily to time constraints.

Medica found that the best strategy for recruiting members was a personalized letter detailing the benefits of the program, which proved more effective than automated phone calls, glossy invites and other preliminary tactics.

Medica focused on service use, biological markers and participant satisfaction in evaluating its health coaching program. When compared with similar members who did not participate in the program, members who did participate had an 18 percent decrease in inpatient health service utilization and a 12 percent decrease in emergency room visits. 45 percent of participants had lowered their cholesterol level and 42 percent saw improvements in their body mass indexes. Quality-of-life scores rose for 81 percent of the participants and 66 percent began more actively managing their health. The participants rated the overall program very highly, and expressed satisfaction with the outcomes.

By decreasing each participating member's health care expenditures by \$139 on average per person per month for the six months following the program, Medica's initial investment in training materials and new staff members was budget neutral.

Medica has surpassed its initial goals but would like to see even more dramatic improvements in its participants' biometrics, and will conduct a more extensive analysis of the program after the first quarter of 2011.

Conclusion

Health coaching motivates patients to actively improve their health. By engaging in patient-centered conversations, individual needs can be met more effectively and personalized goals can be established. As the patient gains confidence and starts to play a more active role in managing his or her health, health care costs are reduced and perceived quality of life dramatically improves.

Shared Decision Making

Shared decision making involves communication between the provider and patient in which the facts about treatment options are presented, the preferences of the provider and the patient are discussed and a decision is made based on the values of provider and patient.¹⁴ Currently, many patients are passive, allowing health care practitioners to decide on their treatments. Some do not understand information that has been provided to them by the practitioner. Health care practitioners can empower patients by explaining the treatment options that are available in ways the patient can understand and more importantly by finding out the patient's own values as part of deciding what treatments (if any) make the most sense.⁴

Some health care practitioners use decision aids to help patients make decisions.⁴ These present patients with various treatment options and possible outcomes. Decision aids include written and oral information, personal counseling, videos, audio and other multimedia.¹⁵ Patients equipped with the appropriate knowledge and tools can participate in making informed health care decisions with their health care practitioner and can ask their health care practitioners questions about their condition and treatment options.¹⁶

Benefits to shared decision making include increased patient satisfaction, better health outcomes and less demand for health care resources.¹⁶

One study used telephone interventions to help patients with their self-management and decision-making skills. Patients were assigned to a usual- or enhanced-support group. Patients in the enhanced-support group had monthly medical and pharmacy costs that were 3.6 percent lower than those in the usual-support group and showed a 10.1 percent reduction in hospital admissions, which accounted for the majority of the cost savings.¹⁷

Many factors appear to affect patient participation in shared decision making. In one study, only about 25 percent of inpatients reported that they preferred an active, shared decision-making model, while the majority of patients preferred a more passive role. Sex, education level, occupational status and living conditions are all factors that influence a person's preferred participation level. Older, female patients with a high level of education who live alone are more likely to prefer a shared decision-making model. Women generally prefer a more active role than men. Given this variation in patient wants in this arena, his or her preferences should be determined through direct assessment with the individual before any formal intervention.¹⁸

Health care practitioners are also influenced by multiple factors related to shared decision making. One Australian study found that specific cancer specialty, sex of the health care practitioner and a higher caseload of new patients had an influence on oncologists' use of shared decision making. Health care practitioners who treat breast and urological cancers are more likely to involve patients in shared decision making compared with doctors with other cancer specialties. Authors attributed the difference to clear treatment choice for early breast cancer and the evolution of the consumer movement. Health care practitioners who cared for relatively larger numbers of patients expressed more comfort with involving them in treatment decisions. Finally, the multivariate analysis demonstrated that female doctors were more than twice as likely to use a shared decision-making approach compared with male doctors. The clinical situation can also impact a health care practitioner's choice of using a shared decision-making approach.¹⁴

Learnings from the New York mental health facilities demonstrate important effective principles that can support shared decision making, including¹⁹

- 1. The first session:** Understanding that the first session is key to establishing engagement, practitioners used various methods, including scripted phone calls before the first appointment to address concerns; others used personalized letters with treatment recommendations after the initial appointment.
- 2. Staff and training expertise:** It is important to have experienced and well-trained staff who are aware of and have adopted evidence-based practices.
- 3. Productivity measures:** Set productivity expectations (that can be adjusted) to avoid staff burnout
- 4. Engagement of families and support measures:** Ensure cultural sensitivity, including using the preferred language of the patient; use a relationship-centered approach that sees the patient in the context of their family and the larger cultural group

The following Profile describes an initiative that uses interactive software to support shared decision making and patient engagement in patients with mental illnesses.

Profile:

Using Onsite Interactive Software to Support Shared Decision Making and Member Engagement

Background

Over the last decade, there has been a significant movement among mental health advocates and practitioners toward focusing treatment on efforts to support progressive recovery in addition to treatment of acute symptoms. Literature indicates that most persons with severe mental illnesses such as schizophrenia and bipolar disorder can reach significant personal goals such as independent living and meaningful interpersonal relationships. Community Care Behavioral Health Organization (Community Care) has recognized that treatment can better help to support recovery when members are engaged in their care and actively participate in decision making about their treatment. To help achieve these goals, the organization has supported the implementation of CommonGround Decision Support Centers (DSCs) to support mental health patient engagement in member care. CommonGround is a Web-based software application that empowers members with psychiatric diagnoses to communicate more effectively with their clinicians, particularly their psychiatrists. Through the use of this technology, Community Care hopes to support increased engagement of members in their own treatment and to help members

incorporate their personal recovery goals into their treatment plans.

Overview

Community Care Behavioral Health Organization is a nonprofit, managed care organization that is part of the University of Pittsburgh Medical Center. Community Care works with 36 counties throughout Pennsylvania to help manage behavioral health services for approximately 650,000 members enrolled in the Pennsylvania HealthChoices Medicaid program. As part of its efforts to focus on recovery, Community Care has developed a Recovery Institute to enhance awareness of the possibility of recovery from serious mental illness and to develop tools and strategies that support recovery. Dr. Pat Deegan has provided consultation in the development of the Recovery Institute. She has developed a shared decision-making program known as CommonGround. One of these strategies in the Recovery Institute is the implementation of CommonGround in key treatment and community centers in Pennsylvania. CommonGround was developed for people diagnosed with psychiatric disabilities. Computers with touch screens and headphones are installed at semiprivate study

carrels in the DSC. The computer program opens with an introduction to the concept of recovery from mental illness written from a peer perspective, and includes three-minute video vignettes of people talking about their recovery. Then members are reminded of their unique personal medicines, a term used to describe those things they do that give life meaning and purpose and help to create wellness.

Next, members complete a customized survey in which they rate their symptoms and psychosocial functioning since their last visit. This is followed by a prompt to report how they have been using or not using prescribed medications. Members are then asked about 11 common concerns that members who use psychiatric medicine often experience (e.g., concerns about how medication might affect one's health). Finally, members are asked to create a power statement. This is what the member wants to accomplish as a next step for care. The report is printed for the member and is forwarded electronically to the nurse or psychiatrist.

The practitioner reviews the report with the member, highlighting areas of concern and progress. When viewed on a laptop, the electronic report presents the practitioner with autogenerated prompts indicating specific aids that may help members work through decisions. The practitioner can also indicate if treatment team staff or peer support is needed to help members complete these decision aids. After discussing the report, the practitioner enters a shared treatment decision that reflects the consensus

of the member and provider on the next steps in treatment. Results can be tracked over subsequent visits and are available to all other care team members.

This approach facilitates shared decisions between the member and the practitioner about the member's next steps in recovery. CommonGround clarifies the member's concerns and helps to make those the focus of the psychiatric care team. It empowers members to talk with their provider about treatment concerns. It also motivates members by helping them identify what they can do to help themselves such as gardening, walking and being with loved ones. It provides members with tools that communicate individualized, functional recovery goals such as going back to work and parenting. CommonGround can be tailored for use in the waiting area of outpatient medication clinics, at peer-support community centers not directly associated with a medical facility and in inpatient settings.

CommonGround helps members understand their illness and express and identify goals. It includes libraries of information on illnesses, medications, side effects and substance abuse. It makes available printable fact sheets and work sheets on various topics. The tool contains benefit information and links to a site where members can see if they are eligible for certain benefits.

CommonGround also helps explore whether treatment is helping to meet the member's goals. For example, a member may be taking

antipsychotic medication that is treating hallucinations but a side effect is weight gain. This could conflict with another goal of treating diabetes or hypertension. Concerns or issues identified using CommonGround can then be discussed with the practitioner to facilitate a shared decision-making process. The tools provided through the program may also be incorporated directly into the decision process. For example, the physician may ask the member to use the side-effects work sheet to track any side effects and return with the sheet on the next visit. This allows the member to be more prepared for the next visit and makes the visit more effective. When the member sees a provider following completion of the CommonGround program, the member and provider can focus on making decisions about care instead of symptom assessment or determining medication side effects. CommonGround presents a holistic view of the member and allows for patient-centered care.

CommonGround is being used in three sites. There are two DSCs operating in outpatient clinics and one DSC in a Peer Support Center. Use at each site varies and is growing. Approximately 800 members are actively using CommonGround as part of their care.

Initiative Development

This program was a natural progression of the goals set by Community Care. Initial development included consultations with the developer of CommonGround and obtaining the license to use the technology. Since this was a joint initiative among all

involved, including Community Care, members, county agencies, providers and mental health advocacy and family agencies, significant time and resources were spent educating and training all stakeholders about the rationale for the program and the technology itself. Community Care began this process by speaking with providers regarding members' potential for recovery and the kinds of strategies each organization found helpful. Most providers supported the focus on recovery and emphasized they were lacking a full suite of tools to support this shift in patient management. The next step was to speak with individual agencies about the process of implementation, cost and potential benefits for members. During the development and implementation process, Community Care met with individual agencies frequently and Community Care staff members were on site on a weekly basis to assist in the development and implementation processes. During this phase, agencies learned how to use the tool and trained staff to support the DSC.

Initiative Implementation and Rollout

The development and implementation phases took approximately six months for each site. Implementation began with a kickoff call. This was followed by an all-day leadership team meeting, where the steps of the implementation process were described in detail. An implementation grid was used as a tool to ensure each team member knew his or her responsibilities and the time frame for completing each step. Following

this meeting, it took approximately three to four months before the DSC went live. The DSC at a county peer center, which is not a medical facility, required additional education of community stakeholders and obtaining buy-in from member support organizations within the county. Meetings before implementation were also held with provider groups and advocacy organizations, such as the local chapter of the National Alliance on Mental Illness.

Challenges

This model requires investments in training, software and clinic design. It also requires a change in the organization's culture to embrace a focus on the member's own recovery goals as a focus of treatment. Community Care and the counties in which the programs are located provided the startup costs and designed reimbursement strategies, with support from the Pennsylvania Medicaid program, to allow the programs to be sustainable. Community Care also worked with the agencies and software developer to engage key administrative and clinical leadership, including physician staff. Staff time, their availability for training and the existing cultures of agencies proved to be challenges during implementation. Training schedules were modified to meet providers' resource needs. Discussion, education and dialogue were used to support culture change.

Outcomes

Member experience was the primary outcome measured by Community Care. This information was obtained through

surveys of practitioners and members that were conducted at 6, 18 and 36 months after the launch of the program at each site. The surveys found high satisfaction with this model.

The first site to go live has been using CommonGround for three years. Of the members surveyed at that site, over 61 percent saw an improvement in the quality of their session with the psychiatrist and 78 percent were better able to discuss their medication concerns. Almost 92 percent had used their CommonGround strategies in the past week. Overall experience was 90 percent in the good to excellent range.

The second site to go live with the program has reported that over 48 percent of members surveyed saw an improvement in the quality of their session with the psychiatrist and 50 percent were better able to discuss their medication concerns. Over 71 percent had used their CommonGround strategies in the past week. Overall experience was almost 91 percent in the good to excellent range.

Focus groups with members, practitioners and leadership teams using the software have indicated a generally positive response to the intervention. Through September 2010, 6,544 surveys at the two established sites found that 69 percent of the reports indicated that the member felt a shared decision took place. Recent data also suggest that members who use CommonGround use it more than once, which indicates members find the program helpful.

The third and newest site has only been using CommonGround for six months and, therefore, data are not yet available. This is the peer-run, community facility, which differs from the other sites in that it is not a medical facility nor associated with one. The data may differ slightly from the other two sites. Anecdotal evidence indicates the program is improving care for members. For example, members at the site who have just left state hospitals and are typically difficult to engage have demonstrated active engagement when using the program. These members come to the peer center regularly to complete reports.

Community Care has also compared adherence to medication and use of acute services in members who use and do not use CommonGround. No difference has been observed between the two groups. However, members who routinely visit outpatient centers often start with higher levels of adherence and lower use of acute services; therefore, these results are not surprising. Community Care is looking to implement the program in more acute settings to better determine if there is an effect on these variables.

Lessons Learned

From the beginning of the program, Community Care found that it was important to have agreement on the core principles and rationale for implementing the program at DSC sites and with organizations that will support the program. In addition, having buy-in on the program itself from the top down

is essential for success. It must be a program that the entire organization embraces. The financial aspects of implementing a program such as CommonGround are important. Ensuring that the model is financially viable over time should be considered before development begins. It is also important to think through and understand cost and staff time in regard to development and implementation of the program.

Involvement of all staff early on in the discussion/planning stages encourages staff engagement and active participation without lapse during and after rollout. Also, cross-training and training new staff at orientation ensures continued functioning of the DSC if staff turnover occurs. Training techniques to maximize staff retention of knowledge are helpful (e.g., hands-on computer training as opposed to classroom-type demonstrations increase and expedite staff knowledge of the CommonGround software during the initial stages of implementation). This allows more time to focus on the content and intention of the initiative rather than the technicalities.

Future Directions

Community Care is considering how to measure member outcomes through member interviews. These interviews will be used to determine the member's feelings regarding engagement and working with the larger team. This will be done primarily with members but may also extend to physicians. Eight additional site implementations are planned in 2011.

Screening Test Campaigns

Education campaigns that encourage preventive screening can increase patient use of this service. In one study, over 20,000 patients who were overdue for a colorectal cancer screening were randomized and one group received mailings containing an educational pamphlet, fecal occult blood test kit and instructions for direct scheduling of flexible sigmoidoscopy or colonoscopy, and the other group did not. Patients who received the mailings were significantly more likely to receive colorectal cancer screening: 44 percent of patients who received the mailings had preventative screening tests, while 38 percent of patients who did not receive the mailing had preventative screening tests. The mailing

was more effective in older patients than in younger patients. The trial also studied the effectiveness of electronic reminders to physicians about patients. There was no significant increase in screening in patients whose doctors received the electronic reminders, except in the subgroup of patients who had at least three visits and whose primary care providers received screening reminders. This suggests that reinforcement with multiple reminders related to the same patient may increase screening among adults who have more frequent visits to their primary care physician.²⁰

The following Quality Lesson describes an initiative employing targeted outreach and personalized educational programs to increase rates of screening for colorectal cancer.

QUALITY LESSON

Improving Colorectal Cancer Screening Rates Through Patient Engagement and Communication

Background

Low rates of health screenings among individuals in the United States often result from an underemphasis on the importance of screening tests and general lack of communication surrounding these procedures. Screening rates are particularly low within specific ethnic populations, indicating that these groups may receive even less information regarding preventive health measures. One approach to addressing underuse is through member/consumer outreach and education programs, as demonstrated by UnitedHealthcare (UHC)'s Addressing Colorectal Screening Disparities in Ethnic Populations initiative. This UHC-initiated program was designed to analyze screening rates among different ethnic groups, identify the barriers preventing these individuals from receiving screening tests and to determine the most influential method of encouraging ethnic populations to receive the screening tests. UHC found that personalized communication and educational messaging improved screening rates throughout the targeted populations.

Description

UHC is a health plan that serves over 70 million members nationwide. UHC, whose Healthcare Effectiveness Data and Information

Set (HEDIS) performance was below the 50th percentile on colorectal cancer screening, sought to improve its performance on that measure through a patient engagement-related approach. Employing a Six Sigma business management strategy, early developmental stages involved acquiring internal buy-in from the National Director of HEDIS, the Multicultural Advancement Team, the Chief Medical Officer, various other divisions within UHC and partnering with the American Cancer Society. While remaining sensitive to the privacy and individual rights of its members, UHC began designing a communication intervention in partnership with Silverlink Communications that evolved into an experimental, multicultural program measuring the degree to which personalized communication, ethnic-specific messaging and the gender of the voice impact members' willingness to get screened for colorectal cancer. UHC enlisted the communications technology and expertise of Silverlink, which played a pivotal role in the program implementation.

In October 2009, UHC targeted 59,432 members across multiple UHC plans and a dozen markets who were aged 51 or older and had no evidence of colorectal screening within the past two years. Members of this initial target group were selected from the southeast region of the United States (Georgia,

Arkansas and Alabama) or from the national category, which included Ohio, Tennessee, Illinois, Louisiana, New York, Mississippi and Kentucky. Members were also categorized by ethnic group: White or no ethnicity identified, African American, Hispanic or Asian.

Of the White or no ethnicity identified members, 31,511 received automated, interactive phone calls briefly detailing the risks of colorectal cancer and expressing the importance of colorectal screening.

Of the Asian group, 185 members received an ethnic-specific message and 189 received a standard message; both messages were recorded in a female voice. The ethnic-specific message identified the member as part of that ethnic group and reported relevant statistics associated with that ethnicity and colorectal screening. The standard message excluded any ethnic-related details (see Appendix 3).

The African American and Hispanic groups were divided into the following four experimental subgroups:

- Received ethnic-specific message recorded in a male voice
 - African Americans: 1,203
 - Hispanic/Latino: 235
- Received ethnic-specific message recorded in a female voice
 - African Americans: 1,189
 - Hispanic/Latino: 267

- Received standard message recorded in a male voice
 - African Americans: 1,194
 - Hispanic/Latino: 251
- Received standard message recorded in a female voice
 - African Americans: 1,200
 - Hispanic/Latino: 232

All participating members were given a 24/7 nurse line to call if they wanted further information regarding colorectal screening after the phone call. The final step of the intervention was to conduct a barrier survey, which was completed by members who still chose not to get screened for colorectal cancer after the intervention. The survey illuminated the most prominent reasons for individuals opting not to get screened, including lack of symptoms, the cost of the screening, lack of recommendation for screening by the patient’s physician and fear of the screening procedure. Based on the member’s response, UHC and Silverlink provided barrier-breaking tips to continue encouraging the member to schedule a screening.

Outcomes

The organization concluded that there was strong evidence indicating that personalized communication and educational outreach have a significant influence on individuals’ use of colorectal cancer screening. Overall, there was an improvement in the rate of

QUALITY LESSON (cont'd)

colorectal cancer screening directly related to the automated phone calls and supplemental resources. In the control group, which received only the standard message with no ethnic-specific information, 5.2 percent of members received screening versus 6.3 percent of members who received the ethnic-specific messaging. Most members who scheduled a colorectal screening test did so five to six weeks after they received the phone call; the delay may be attributed to the time associated with appointment scheduling.

The Hispanic group realized the largest improvements relating to type of personalized message. Of those who listened to the standard message, 7.8 percent of patients were screened versus 8.6 percent in the group listening to the ethnic-specific message, regardless of voice. The difference among Hispanics was even more pronounced. Among those who heard the message from a female voice, 5.7 percent received a screening compared to 10.8 percent among those who heard the message in a male voice, regardless of message.

The African American and Asian groups responded more positively to the standard message. Members of the African American group were more likely to receive colorectal screening if their message was recorded in a female voice and members of the White or no ethnicity identified group saw no statistical difference between male and female voice recordings.

Analysis of the barrier survey revealed that the most commonly cited reason for refusing colorectal cancer screening is that the patient did not exhibit any colorectal cancer symptoms such as a change in bowel habits or blood in the stool. Other reasons included expenses associated with the screening, the member's doctor had not recommended screening or the member was afraid to undergo the procedure. Members who listed fears associated with the screening as their main reason were more likely to get screened after listening to the barrier-breaking tips than those who stated lack of symptoms as their primary reason. Additionally, African American members were much more likely to schedule a screening appointment than members of other ethnicities who were not initially responsive to the intervention.

Conclusion

UHC demonstrated how personalized communication and outreach encourages individuals to pursue the recommended health screening tests. Because of the program's success, UHC's HEDIS colorectal cancer screening rates have improved, and the company is currently executing an even larger intervention focusing on breast cancer screening. UHC plans to continue implementing these types of programs, and hopes to see more health plans adopting similar strategies in the future.

Shared Medical Appointments

A shared medical appointment is a model that is intended to improve patients’ access to affordable care. Shared medical appointments (also called group visits) allow patients to meet one-on-one with practitioners in a group setting. Shared medical appointments can be designed to only include patients with a specific disease, to include those who are participating in annual physical examinations or to include patients who are coming in for non–disease-specific follow-up care. Six to 12 patients meet with a multidisciplinary team, which can include a physician, nurse practitioner, registered nurse, medical assistant or a behavioral health specialist for 90 to 120 minutes. Patients are able to speak individually with practitioners in a shared appointments model. While the physician is documenting patient information, a nurse provides information on disease education and self-management to the group.^{21,22} This model can be difficult because it requires training and consistency among teams. However, a shared medical appointment model can foster discussion of self-management strategies, disease education, problem solving and team care.^{21,22}

Several clinical trials have demonstrated the benefits of shared medical appointments. Results from one study of patients with heart failure showed that a multidisciplinary approach using a shared medical appointment model can increase patient satisfaction, improve quality of life and reduce

hospitalizations.²³ In another study, patients with diabetes and high cardiovascular risk who participated in shared medical appointments saw a reduction in cardiovascular risk. The study concluded shared medical appointments are a practical model that can help improve the quality of patient care.²⁴

A shared medical appointment model has also been shown to have positive results in patients with chronic cardiac diseases. Shared medical appointments can improve patient access to health care and patient satisfaction, enhance health outcomes and increase practitioner productivity and patient engagement.^{22,24}

Key Aspects of Shared Medical Appointments²²

Shared medical appointments (interactive group health care visits for patients with a chronic disease/condition) increase patient access, decrease emergency care needs and are satisfying to attendees.

Shared medical appointments benefit health care providers by increasing accessibility to patients and enhancing discussion about chronic disease and self-care expectations.

Future research is needed to enhance patient attendance at shared medical appointments, determine the extent of health outcome benefits and assure provision of quality care.

Health Information Technology Strategies That Support or Enhance Patient Engagement

A number of health information technology (HIT) applications have been developed that appear to enhance patients’ ability to

effectively manage and actively participate in their own health care.²⁵ Some of these applications include

- 1. Self-management systems:** A variety of HIT-related platforms that can monitor and transmit information about the status of the patient (e.g., blood pressure). Depending on system design, feedback to a patient regarding his/her health status can be received from the system directly or from the provider who receives information from the system.²⁶
- 2. Electronic personal health record (PHR) and patient portals:** An electronic PHR is a self-reported electronic record of a patient's health information managed by the patient. Patient portals, which are also known as tethered PHRs, are linked to another system, such as the hospital electronic medical record (EMR) system. Tethered PHRs are often sponsored by insurance plans, physician groups or hospitals, and may also be offered by employers. Patients can view selected information in their PHR, which comes from the linked EMR system.^{25,26}
- 3. Peer interaction systems:** These allow patients to communicate electronically with other patients through online forums and discussion groups.²⁵

The following Profile describes the use of an online shared health record with an integrated electronic health risk assessment to engage and empower patients and providers.

Profile:

Empowering and Activating Patients and Their Providers Through Convenient Online Tools

Background

Technology from electronic medical records (EMRs) to interactive Web portals can improve health care. Group Health Cooperative (Group Health) has been a pioneer in this field with its MyGroupHealth, Internet-based services. Using a system-wide, online shared health record (SHR) with an integrated electronic health risk assessment (e-HRA), Group Health has transformed the way patients interact with care providers. These tools are available online where patients can review their health information, assess their health risk and obtain additional information on care, conditions and lab tests in real time. These tools not only empower patients to understand and manage their health but also result in a more streamlined and effective office visit by allowing practitioners to focus on action steps instead of just obtaining and providing information.

Overview

Group Health is a consumer-governed, nonprofit health care system that integrates care and coverage. Along with its subsidiary carriers, Group Health Options, Inc., and KPS Health Plans, Group Health serves more than 675,000 plan members in Washington and Idaho. As part of the

MyGroupHealth portal, Group Health uses two key technologies to improve interaction between patients and providers and encourage patients to engage in their own health care. These are the SHR and e-HRA. Use of these tools supports the organization's core objective to systematically influence providers' clinical decision making in a way that achieves the best patient outcomes, personalizes care and coordinates services. The SHR and e-HRA enhance the patient-practitioner relationship by allowing the patient to take the lead. By making these services accessible and powerful enough to impact the relationship, patients and practitioners become partners in making decisions to support the best outcomes.

The SHR is co-owned by patients and practitioners and is used as a decision-making tool for patient-practitioner discussions. It is integrated within a comprehensive clinical information system (CIS) and includes Web-based access to patients' online EMR, secure e-mail access to primary care and specialty medical staff, laboratory results, after-visit summaries and a list of known allergies and immunizations. The SHR enables convenient access and transparency for members by connecting patients, staff and community providers. The tool provides

documentation of care to patients regardless of where, when or how the care is delivered. It is also a longitudinal patient record and clinical repository. It functions as a comprehensive personal health record, which is an EMR that allows patients access to their medical information.

The e-HRA, an interactive online tool, is housed on the organization's secure patient Web site. The tool collects important, clinically useful information (e.g., family and medical history) from a patient and integrates it into the patient's EMR. Then, it produces an online personal health report for each patient with customized recommendations for medical screening, chronic disease management and health promotion. Members and patients are prompted to take the e-HRA, preferably annually, via multiple communication channels, including the quarterly member newsletter, visit summaries, provider previsit messaging for well visits and as part of wellness programs built into benefit plan structures. This e-HRA is the foundation for a suite of health products available to support the health and wellness needs of patients.

Through use of the e-HRA, health care teams and patients can learn more about the patient's health risks before an office visit. This allows patients to be better informed, more confident and more effective in talking with care teams. For example, based on data input by the member, the e-HRA can link to information on a specific condition or test. This information can better prepare a member for an office visit or encourage the member to ask questions

or seek out additional information from care providers. Much of the upfront data often covered in office visits have already been synthesized by the e-HRA. These features allow the interactions during the office visit to shift away from medical history taking and identifying care needs to a productive discussion of goal setting and care planning.

The e-HRA and SHR work in concert to facilitate proactive interactions and shared decision making between patients and practitioners. Patient data are immediately migrated from the e-HRA to the SHR so that they are waiting for the care team. If a patient's clinical situation is assessed as "at risk," a notification is sent to the patient's care team through the CIS (or, if the member's provider practices outside Group Health medical centers, to a care management nurse, also within the CIS). Based on this alert, care teams reach out and communicate with patients to make immediate adjustments in their care as necessary without waiting for a visit. Telephone follow-up with patients has occurred within minutes of completion of the e-HRA. The SHR also includes multiple domains of prevention, such as exercise, substance use and sexual behavior. Assessment of a patient's profile in such areas is linked to measurement of readiness to change, which is obtained by the e-HRA questionnaire tool. Providers can use this information to frame discussions about helpful interventions. Coordination of services and management of patient value is demonstrated by an e-HRA link to coaching services via telephone for members needing lifestyle interventions.

An important aspect of MyGroupHeath is supporting screening, health promotion and disease management. In a mid-2007 analysis of the e-HRA data for 12,200 patients (out of an eligible 125,000) who had completed the e-HRA, 66 percent were identified as overweight or obese, 25 percent with physical inactivity, 6 percent with risky alcohol consumption, 11 percent with tobacco use and 13 percent with risky sexual practices. For each of these health risks and conditions, patients and their providers received individualized recommendations for action based on readiness to change, local resources and other factors. The e-HRA provided members with helpful advice on recommended health screenings, immunization and prophylactic medication use based on their individual risk. For example, in the analysis noted above, 1,478 people were identified as needing a pneumonia vaccine and 2,577 as overdue for colorectal cancer screening. A total of 34,970 tailored recommendations for prevention services were delivered to patients and their care teams with the e-HRA, or an average of 2.8 recommendations per person.

In addition to prevention, the e-HRA also evaluates six common illnesses (diabetes, depression, chronic obstructive pulmonary disease, asthma, high blood pressure and heart failure). The percentage of members with these conditions that the e-HRA assessed as being in good control ranged from 78 percent (asthma) to only 47 percent (diabetes). Patients assessed as being in fair or poor control were given individualized suggestions on practical steps to take to

improve control and long-term outcomes. This information was delivered to their care teams as well.

Initiative Development

In 2000, senior leadership at Group Health recognized that investment in Internet technologies was essential for future growth and differentiation from other health care organizations. Therefore, the group developed a strategy for Internet-based health care programs. The overall goal was to effectively use technology to create significant clinical and business process transformation to improve the delivery of proactive, high-quality, patient-centric and cost-effective care. All stages of development and implementation required the support of senior leadership.

Initial phases of Group Health's use of technology to engage members centered on a secure e-mail platform that allowed members to e-mail physicians with questions. Approximately a year after overall goals were established, work began on this secure messaging platform, which would later become a key element of the SHR and e-HRA. The system was approved in a six-month pilot program across three practitioners and one medical center. Using data from the pilot program, the system was better integrated into the work flow. The pilot members were champions for the program, which helped adoption. The complete, secure e-mail system rollout to primary care physicians was completed in 2002.

Building on the success of secure e-mail, Group Health implemented a system-wide, online SHR in 2003 and an e-HRA in 2006. As part of the development phase, the patient view into the SHR was rolled out to staff before general membership. This was done because most Group Health staff members are also Group Health patients. Therefore, to build awareness and momentum for the launch, the SHR access was enabled via MyGroupHealth exclusively for staff members for a short period. This was a key component for success of the program. It allowed staff members to see and understand the tools and thus better help members with questions once the product was launched.

Group Health completed a pilot program for the e-HRA before full launch with one major employer and medical center. It conducted a survey-based evaluation to measure user burden and satisfaction in completing the e-HRA and its perceived helpfulness. Response to the e-HRA was extremely positive with the majority of members confirming it was informative and helped them better understand their risks and make informed care decisions. Members particularly liked that they could complete the e-HRA online at their leisure, that it pulled data from their own medical record (e.g., latest cholesterol results) in making care recommendations and that the results would become part of their record for access by their care teams.

Initiative Implementation and Rollout

The SHR was the first of the two tools to be implemented. The rollout of the SHR

and CIS followed a nontraditional approach. Typically, technology is rolled out to practitioners before patients are provided with access. The SHR was launched to patients and practitioners across the system at the same time. In fact, the SHR was rolled out to patients often before it was fully functional for practitioners. In reversing the “normal” order of implementation, Group Health stressed the patient-centered focus of the use of technology.

The CIS was rolled out over a two-year period to every medical center. For implementation, a group of CIS specialists was trained and assigned to provide ongoing support to the medical centers.

An interesting phenomenon that occurred during this period was training of staff by their own patients, as patient use drove the need for staff to become more familiar with the technology via requests for information and access to test result information. During this period, patients provided significant reinforcing messages to care teams about the value of the services provided by the SHR.

The e-HRA rollout plan for use was similar to that of the SHR/CIS. Medical center leaders were heavily involved in the implementation process and supported by members of the project team.

Once each system was operational, Group Health had to maintain 24/7 availability of information. Group Health implemented a CIS emergency response team, with clinicians on call 24 hours a day. The organization, in concert with patients, has

placed an expectation of availability of these systems to be equivalent to that of an intensive care unit in any of its hospitals. As part of implementation and rollout, Group Health developed specific communication tools for internal and external stakeholders. The goal of communication was to build connections between the member and the Web site. Member ID cards were issued in a card carrier that described the Web services and how to gain secure access. One of the most unique communication approaches Group Health used was humorous advertisements (see Appendix 4). By taking a humorous approach to advertising, Group Health differentiated itself from other organizations in the community and helped raise awareness of the program. Onboarding work (e.g., new member outreach phone calls, provider selection activities and enrollment mailings), advertisements and articles in the member newsletter, communications and coordination with wellness programs and distribution of information at health fairs were also used as part of the communication efforts. To educate the organization's sales force, a CD was developed that included a demo of the MyGroupHealth portal for employers. In 2005, an interactive demo was available directly through the Web site, and it became clear members needed a visual of online services to fully grasp the potential value of those services, because many of the services were not typically available in the community.

Use of these services is widespread and growing. In Group Health's primary service region, 66 percent of adults receiving care at

medical centers have signed up and used the verification procedure for use of the secure patient Web site. More than 30 percent of all physician-patient encounters are now conducted via secure e-mail. At least 30 percent of all laboratory studies ordered by medical group members are reviewed by patients online. There are approximately 60,000 lab result page hits on a weekly basis, and about 80,000 daily unique users visit the MyGroupHealth site per week.

Challenges

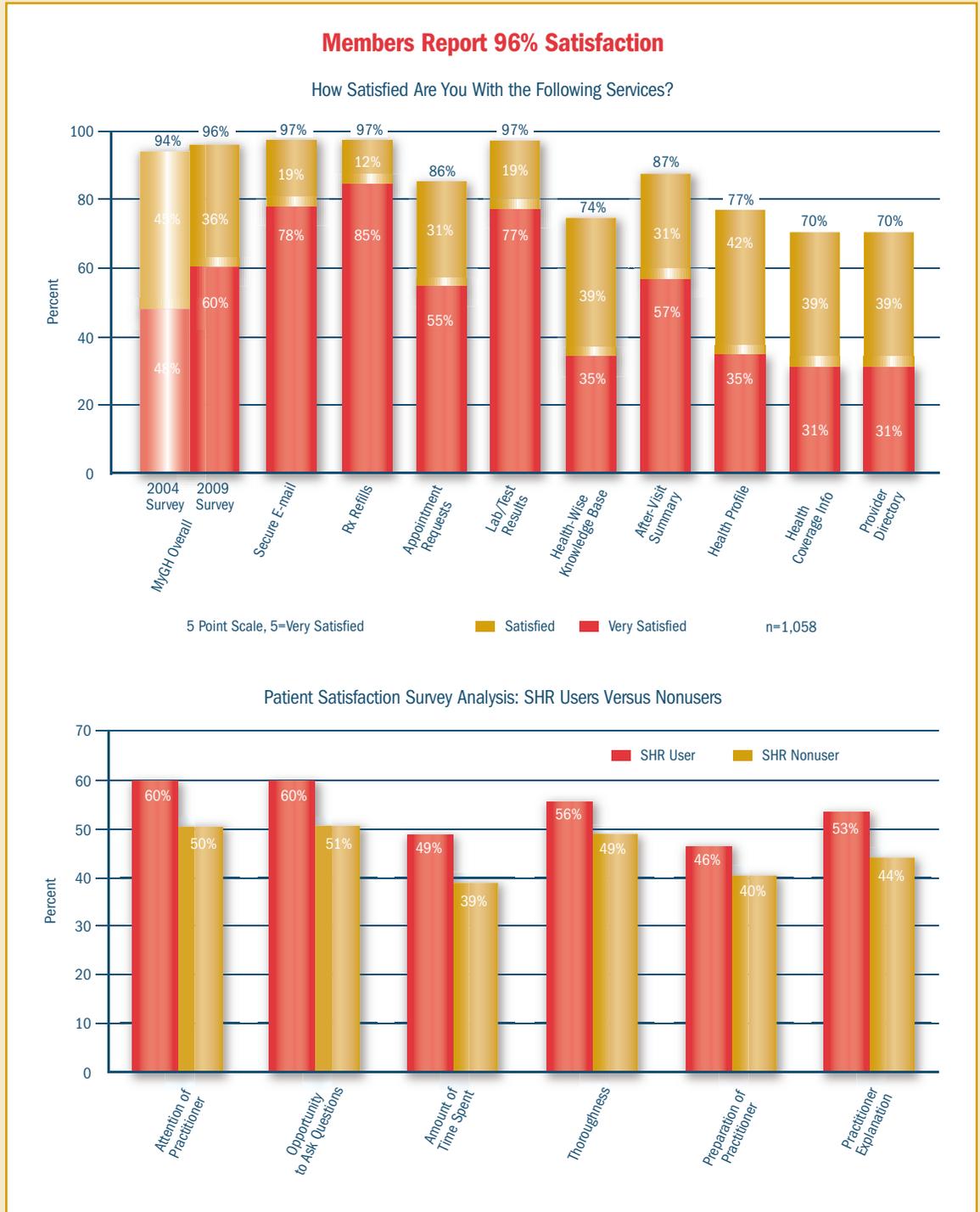
Group Health faced several key challenges. The first was obtaining consistent buy-in, support and adoption from staff members. Physician champions, particularly those who partnered with operations leaders, were held accountable for successful adoption of the tools and helped to motivate staff. Organization-wide contests with rewards tied to patient use of services led to increased staff adoption and personalization of the tool.

There were technological challenges as well. Incorporating the e-HRA data directly into the EMR was not a capability previously established within the existing system. The organization worked with the EMR vendor to create a comprehensive report within the electronic chart and to house discrete data in appropriate parts of the medical record. These technologies also require maintenance and updates, which can be challenging when resources are limited. Patients and providers value the services provided by Group Health and continuously encourage Group Health to maintain and invest in online services.

To address many of these requests, the organization has committed to an accelerated pace of innovation and fully integrated these tools into the advanced medical home model.

Outcomes

Group Health measures success through a combination of specific and general approaches. However, member uptake and



satisfaction with the program are used as the primary measures. For the SHR, a survey of users in 2004, 2006 and 2009 obtained feedback on program effectiveness. For the e-HRA a survey evaluation was part of a pilot program. In addition, data are collected from a user satisfaction survey of approximately 1,300 insured members.

Based on assessment of these data, patient satisfaction with overall care is high. Members have indicated a 96 percent satisfaction rate with Internet-based services. In addition, members using the SHR are more satisfied with their care compared with nonusers, as illustrated in the graphs on the previous page. When asked to rate the value of MyGroupHealth, 91 percent of users rated the suite of online services valuable in improving understanding of a health condition.

There has also been a positive impact on in-person visits. In 2009, 24 percent of survey respondents reported secure messaging replaced a clinic appointment, while 57 percent (compared with 45 percent in 2004) rated secure e-mail as extremely valuable in enhancing the in-person visits they did have. Anecdotally, providers have reported their visits with patients are more productive because the simpler questions and issues have been addressed before the visit via secure messaging. In addition, Group Health has a patient retention rate in the primary care practice that is 6.5 percent higher for users of its SHR than for nonusers.

Lessons Learned

To successfully implement an organizational

change, the right mix of culture, leadership and a patient-centered approach is essential. Group Health found it was worthwhile to conduct an inventory of these components before undertaking a change of this magnitude to uncover and remedy any existing gaps. The value of practitioner leadership and partnership with physicians also cannot be underemphasized.

Practical lessons learned through this initiative included ways of introducing patients to the program and incorporating the tool into the work flow. To introduce patients to the program, Group Health discovered one of the most effective ways to get patients to use the e-HRA was to send out a secure e-mail message directly to patients from the clinical care team asking the patient to fill out an assessment.

Future Directions

Group Health plans to continue to enhance and expand this program. Medical centers are experimenting with the replacement of paper-based, adult well-visit questionnaires with the e-HRA. A new version of the e-HRA will be rolled out for use with the pediatric and adolescent population. The SHR is being evaluated for previsit care by proactively contacting patients who have secured appointments to determine the patients' goals for the visit in the patients' own words. Finally, Group Health plans to continue promoting the use of these tools outside of its own organization to broaden patient empowerment and patient-centered care across the health care industry.

Work-Site Wellness Programs

Employers and policymakers are driving interest in programs that encourage patients to be involved in their health care through participation in wellness programs. Employees may be rewarded for meeting certain health targets, including maintaining a healthy weight or blood pressure. The reform law increases wellness incentives from 20 percent to 30 percent of the total premium for each person and also provides the opportunity for up to a 50 percent increase at the discretion of the secretaries of the Department of Labor and the U.S. Department of Health and Human Services.²⁷

Work-site wellness programs can use financial incentives and creative activities to involve patients in their own care. One study demonstrated reduced absenteeism and related costs. Participants in the program missed three fewer days of work and there was a 20 percent reduction in absenteeism. This decrease in absenteeism resulted in \$15.60 in savings for every dollar spent on the program.²⁸

Another study found that health care costs rose 15 percent slower among employees enrolled in a health care program compared with employees not enrolled in the program. Approximately 10,000 employees participated in the study, which resulted in a cost savings of \$332 per participant. Participants also used more preventative services compared with the control group.²⁹

Strategies to Engage Patients in Improving Health Care

In addition to becoming more engaged in their own health care, patients can help improve health care delivery practices, which may ultimately improve not only their own care but also the care of every patient using them. The CAHPS survey is an initiative to develop standardized surveys of patient experiences with ambulatory- and facility-level care. The surveys use standardized questions and methodologies (sampling and weighting) to allow consumers to compare health plans and providers fairly and drive competition to improve quality through public reporting.^{30,31} The surveys cover topics that are important to patients, including the

communication skills of practitioners and the accessibility of services.³¹ Patients are considered to be an audience of CAHPS results because it is hoped they will use the data to make health care decisions.³² The surveys allow patients to assess the patient-centeredness of care and compare the performances of different facilities.³⁰ Through the CAHPS surveys, patients are able to provide information that will inform practice improvements.³⁰ Regulators, purchasers, provider organization and health care plans also use the CAHPS results. For health plans to be accredited, they are required to submit CAHPS Health Plan survey results together with HEDIS results to the National Committee on Quality Assurance, and agree that the results will be publicly reported. A new version of the CAHPS is slated for use with the Patient-Centered Medical Home program.^{32,33}

Conclusion

A variety of strategies can be used to engage patients in health care. Health coaching techniques and shared decision-making models may improve outcomes in patients and increased patient involvement. A shared medical appointment model can improve patient access to care and can enhance health care outcomes. New HIT applications demonstrate how technology can be utilized to engage patients. Legislation has the potential to increase patient involvement in health care through employers.

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Measuring Patient Engagement: How Is Capacity and Willingness to Engage in Health Care Assessed?

Introduction

Being able to directly measure varying levels of patient engagement and their effect on health outcomes is important. Several tools are available to assess the capacity and willingness of a person to engage in his or her own health care. Some of them have been developed and used by a single institution and others are more widely used. A review of these tools can be found in a report commissioned by the King's Fund.¹

This chapter reviews two of the tools that have been described in the literature: the Observing Patient Involvement (OPTION) scale and the Patient Activation Measure (PAM). The OPTION scale evaluates the quality of patient-provider interactions and the PAM measures the extent to which patients are activated.^{2,3} The quality of patient-provider interactions and the extent to which patients are activated each influence the degree to which an individual patient becomes engaged in his or her health care. At the present time, there are relatively little data on the impact of patient engagement on health care quality and outcomes, although studies are ongoing.

The OPTION Scale

Shared decision making is one way in which patients can become more involved in their own care. However, it is a complex subject and difficult to measure. There have been studies demonstrating that less than half of patients want to participate in the decision-making process, despite the potential for positive outcomes on their health. Other studies find that patients have only minor concerns about participating in the decision-making process, as long as individual preferences regarding the level of participation are taken into account. The patients surveyed wanted their health care practitioners to give them information about treatment options while respecting the degree to which they want to engage in the decision-making process.²

The OPTION scale is an item-based tool, which is used to evaluate audio or video recordings of patient-practitioner interactions. Although it was developed to assess the shared decision-making process in the context of general practice, it is intended to be flexible enough for use in all types of clinical practice settings. It evaluates²

- If problems are well-defined
- If options are formulated
- If information is provided
- Patient understanding and role preference
- Whether decisions are examined from the practitioner and patient perspectives

The OPTION scale contains the following 12 items²:

1. The practitioner identifies a (the) problem(s) needing a decision-making process.
2. The practitioner states that there is more than one way to deal with an identified problem (“equipoise”).
3. The practitioner lists “options,” including the choice of “no action” (if feasible).
4. The practitioner explains the pros and cons of options to the patient (taking “no action” is an option).
5. The practitioner checks the patient’s preferred information format (words/numbers/visual display).
6. The practitioner explores the patient’s expectations (or ideas) about how the problem(s) are to be managed.
7. The practitioner explores the patient’s concerns (fears) about how the problem(s) is (are) to be managed.
8. The practitioner checks that the patient has understood the information.
9. The practitioner provides opportunities for the patient to ask questions.

10. The practitioner asks for the patient’s preferred level of involvement in decision making.
11. An opportunity for deferring a decision is provided.
12. Arrangements are made to review the decision (or the deferment).

When a patient-practitioner interaction is being evaluated using the OPTION scale, an observer who is trained in the use of the instrument will observe the patient-practitioner interaction and rate each item on a five-point scale. The observer can choose “strongly agree,” “agree,” “neutral,” “disagree” or “strongly disagree” for each of the 12 items on the scale. Raters’ responses to the items on the OPTION scale during its initial validation process indicated that, generally, practitioners did not actively engage the patient in a decision-making process.² This finding suggests that developing tools that help practitioners engage patients in the decision-making process will help increase levels of patient engagement.

Testing of the OPTION scale demonstrated that it has measurement reliability and construct validity for use as a research tool.² It has been used in subsequent studies to evaluate how practitioners engage their patients in the decision-making process and the impact of such engagement on patient outcomes. An understanding of how practitioners do (or do not) engage their patients will help in the design, development and implementation of tools that will help the practitioners more fully and effectively

engage their patients in making decisions about their health.

One recent study evaluated the relative impact of cognitive and emotional aspects of shared decision making on patient outcomes. A trained observer used the OPTION scale to evaluate patient-practitioner interactions and the Response to Emotional Cues and Concerns (RECC) coding system to evaluate how the practitioner reacted to emotional cues given by the patients. The RECC system was developed to code emotional expressions, including cues, concerns and psychosocial issues raised by patients with cancer and the responses of their doctors to these concerns. The study outcomes that were measured included anxiety, decisional conflict and satisfaction with the decision, the consultation and the practitioner's shared decision-making skills. A group of 55 patients with early stage breast cancer and 20 oncologists participated in the study.⁴

The ratings of the practitioner-patient interactions on the OPTION scale indicated a low level of shared decision-making behaviors on the part of the practitioners. Most items on the scale were not observed or only minimally observed. According to the RECC coding system, 63 percent of emotional cues from patients were responded to with no empathy. Additionally, the degree of empathy correlated with postconsultation anxiety—the lower the level of empathy, the higher the level of anxiety.⁴ These results suggest that concerns expressed by the patients (either verbally or otherwise) frequently do not elicit signs of empathy from the practitioner. Therefore, developing

tools or educational programs for practitioners to help them engage their patients and learn how to be more responsive to emotional cues may be beneficial.

Shared decision making, which relies on quality patient-provider interactions, is an important part of patient engagement. The OPTION scale is a valuable research tool that can evaluate the quality of patient-provider interactions.

The PAM

In order for patients to effectively engage in their own health care, they need to be activated and informed. This means having the knowledge, skill and confidence to manage their own health and health care. It is important for health care practitioners and policymakers to understand what is required for people to become effective and educated managers of their own health care. It is also important to know about the abilities, information, beliefs and motivations that are required for them to become activated.³

The PAM was developed by Judith Hibbard and colleagues to assess patient activation. It was developed in four stages. The first incorporated several initiatives to conceptually define activation, the second included the development of a preliminary scale, the third involved further refining and testing of the measure and the fourth was used to evaluate the performance of the measure in different subsamples of the population and the construct validity of the measure.³

Four Levels of Activation³

Level 1: Patients at this lowest level often do not understand that they need to play an active role. They lack confidence and knowledge to effectively participate in their care.

Level 2: Patients at Level 2 often lack the confidence and knowledge necessary to take action. Making lifestyle changes and managing medication regimens can be difficult for them.

Level 3: Patients at Level 3 have sufficient confidence, knowledge and skill to actually take action to maintain and improve health.

Level 4: Patients at this highest level of activation engage in most of the behaviors they need to stay healthy and manage their care but may have difficulty staying on track when under stress or when life routines change.

The elements of knowledge, belief and skill that make up patient activation have a hierarchical order, suggesting that activation is developmental in nature and has four stages as outlined in the box above. The PAM assesses patients on a 0–100 point scale.⁴ A change of score as small as 3 points is linked with behavioral changes.

The PAM has been demonstrated to be a valid and reliable measure of patient activation. For example, those with higher activation indicate that they have significantly better health and exhibit significantly lower rates of visits to the practitioner's office and the emergency room. In addition, they have fewer overnight stays in the hospital. Patients with higher activation are more likely to engage in healthy activities such as regular exercise, eating a low-fat diet high in fruits and vegetables and not smoking. These patients are also more likely to research the

qualifications of a new practitioner and have a lower degree of fatalism about their health.³

Following validation of the original 22-item PAM, Hibbard and her colleagues then developed a 13-item version by identifying items that could be removed from the 22-item scale without affecting its precision and reliability.⁵ There is also now a 10-item PAM. The 13-item scale is shown in **Table 1**.

The 13-item PAM has been used to evaluate the health behaviors of a population of patients with multiple sclerosis (MS). Patient activation is important for these patients because their physical condition is constantly fluctuating, and they frequently need to make new decisions regarding their care. Self-efficacy, another component of patient activation, is a person's belief that he or she can rise above various challenges and complete a course of action. It is an important prediction of a patient's adjustment to having MS. Because self-efficacy has been found to be lower in patients with depression or anxiety, these patients may be at a higher risk of having low activation levels. A significant number of patients with MS have depression, suggesting that they may have lower self-efficacy. It is hypothesized that treating their depression may increase their self-efficacy and in turn help increase their activation levels.⁶

A total of 199 patients were recruited from a regional MS center associated with an academic medical center in the southeastern United States. They completed a variety of surveys, including a demographic survey (which also collected specifics about MS

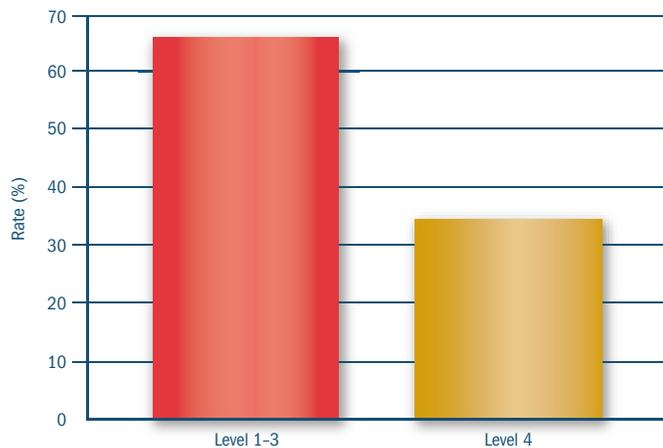
Table 1. The 13-Item PAM⁵

1. When all is said and done, I am the person who is responsible for managing my health condition.
2. Taking an active role in my own health care is the most important factor in determining my health and ability to function.
3. I am confident that I can take actions that will help prevent or minimize some symptoms or problems associated with my health condition.
4. I know what each of my prescribed medications do.
5. I am confident I can tell when I need to go get medical care and when I can handle a health problem myself.
6. I am confident I can tell my health care provider concerns I have even when he or she does not ask.
7. I am confident that I can follow through on medical treatments I need to do at home.
8. I understand the nature and causes of my health condition(s).
9. I know the different medical treatment options available for my health condition.
10. I have been able to maintain the lifestyle changes for my health that I have made.
11. I know how to prevent further problems with my health condition.
12. I am confident I can figure out solutions when new situations or problems arise with my health condition.
13. I am confident that I can maintain lifestyle changes like diet and exercise even during times of stress.

disease), the 13-item PAM, and measures of depression, self-efficacy and quality of life.⁶

Results of the PAM are shown in **Figure 1**. The data show that approximately two-thirds of the patients were at Levels 1–3. This suggests that interventions are necessary to increase the activation of this patient population to help them achieve Level 4 activation (i.e., maintaining behaviors over time). These levels are similar to other findings in patients with chronic conditions.⁶

Figure 1. Patient Level of Activation as Measured by the PAM⁶



The study also found that patients with higher PAM scores (i.e., higher levels of activation) had higher MS self-efficacy, lower levels of depression and a higher sense of well-being. However, the authors were surprised to observe that self-reported frequency of missing treatments was not correlated to patient activation in this group.⁶

In addition to MS, the PAM has successfully been used with and improved patient engagement within several condition-specific patient groups, such as those with a serious mental health diagnosis, heart disease, inflammatory bowel syndrome, heart failure, asthma and diabetes.⁷⁻¹⁰

If used in the clinical setting, the PAM allows providers to tailor their support to the individual patient's level of activation (shown to be effective in increasing activation), and it allows the provider to track the progress of a single patient or a whole panel of patients. Activation scores are being used in the Patient-Centered Medical Home (PCMH) as a way to ensure that patients are improving in their ability to participate in their own care, and they are also being used to allocate resources more efficiently. For example, when a team-based approach is employed in the PCMH, all members of the health care team can use a patient's PAM score to more effectively support that patient. They can all reinforce the same messages and approaches and can also deploy more of the team's resources to those patients who are less activated and less prepared to actively manage their health. This is potentially a much more powerful strategy

than relying on one clinician to provide support for behavior change. It is also a more efficient strategy. Instead of providing a one-size-fits-all approach, resources can be deployed according to the needs of different segments of the population. For example, because low activated patients are more passive, it may be necessary to reach out to them with a more "high touch" approach. Spending more staff time and getting the right mix of support services for low activated patients is one way to more efficiently use existing resources. At the same time, because the more activated patients are more motivated and ready to use information relevant to them, sending information and community referrals out to them may be effective. Therefore, by segmenting patient populations, it is possible to achieve better outcomes with the same amount of resources.

The following Profile outlines an initiative that evaluated the impacts of using the PAM score to tailor health coaching on patient engagement and health outcomes. The main goal of the program is to learn if assessing a patient's ability to manage his or her own care and tailoring health coaching to the patient based on that assessment are effective in improving outcomes.

Profile:

Integrating the Patient Activation Measure Into Health Coaching to Improve Patient Engagement

Background

One of the main ways health care coaching and disease management programs influence outcomes is through their support of patient self-management and engagement. ODS, a health plan based in Portland, Oregon, integrated the Patient Activation Measure (PAM) and PAM suite of tools into its health coaching program to improve patient engagement and health outcomes. This approach is part of an overall effort by the health plan to shift focus from traditional disease management toward management and improvement of patient health behaviors. Unlike many other organizations, ODS uses the PAM score not just as a tool for determining patient activation; it also impacts how health coaches interact with their patients because it allows for accurate assessment of the individual patient's needs. The primary goal of the program is to determine if assessing patients' capabilities for self-management and tailoring coaching support based on this assessment are effective in improving member health outcomes.

Overview

The ODS health coaching program originally was directive in nature and focused on the disease and condition rather than patient behaviors. However, a few years ago, ODS recognized that shifting care toward a more holistic, behavior-based management approach could lead to improved outcomes and, therefore, sought to redefine its coaching program to accomplish this goal. As part of this paradigm shift, ODS incorporated the PAM suite of tools along with the Coaching for Activation (CFA) platform into the organization's health coaching program. Included in these is an online survey administration system to record, track and produce outcomes reporting. In addition the PAM suite and CFA provide resources and guidance for the clinician/coach to tailor PAM level-specific coaching support, increase engagement and retention in condition-management programming and customize various modes of communications (online and print) for greater impact that is unique to an individual's or audience's level of activation.

As the first step in this program, ODS determines what members may benefit from the ODS health coaching program. The health coaching program covers a wide variety of areas that include

- Cardiovascular risk factors
- Women’s health
- Depression
- Diabetes
- Asthma
- Chronic obstructive pulmonary disease
- Musculoskeletal disorders
- Obesity management
- Lifestyle risk

To identify eligible members, ODS reviews claims data and referrals from providers, case management and behavioral health staff. Population-specific eligibility criteria and predictive risk scores are then used to identify members who suffer from a high disease burden, comorbidity and gaps in care before they become high-cost utilizers of health care services.

Eligible members are then sent the PAM survey (see Appendix 5) via mail. If the member is interested in participating in one-on-one health coaching, he or she completes and returns the PAM survey. Health coaches use the survey results to stratify members to activation levels.

Members who have opted into the phone coaching component of the program are contacted by telephone. Supplemental

support is also available through e-mail and online. The PAM score helps ODS health coaches determine the best way to interact with the member. For example, it can be used to identify the best method to approach the member, call frequency, the amount of time spent speaking with a member, objectives and goals for the member and potential resources available to assist in care. It is this approach that demonstrates how ODS maximizes the PAM assessment by moving it beyond an assessment tool and incorporating it into the total coaching model. The goal is to make the PAM assessment results a part of the dialogue with the member and to use them as the basis for determining communications and interactions.

By understanding participants’ activation levels, health coaches can better tailor programs to meet the individual needs of the member. For example, for a member at a lower level of activation, it is best not to overwhelm that person with a lot of information. A health coach would, therefore, ensure the member is given smaller amounts of information in a way that is easier for the member to absorb and understand.

ODS health coaches are trained in the use of evidence-based guidelines and motivational interviewing techniques. A PAM score augments these skills to give ODS health coaches insight into a participant’s self-management abilities and brings focus to behaviors and skills that are realistic and achievable for a given level of activation.

Research underscores that patient knowledge levels, confidence and commitment to adhere to a long-term treatment plan vary. This variability is usually correlated with a patient's level of activation. Therefore, ODS believes that a successful coaching regimen must provide ongoing motivation and follow-up based on the individual's unique health style. ODS clinicians take a highly patient-centered and holistic approach incorporating motivational interviewing techniques, coupled with a focus on lifestyle, culture and belief systems.

Initiative Development

Program development began with a comprehensive literature review, which took approximately three weeks to complete. Studies that have documented the importance of patient activation were reviewed. The research suggested patient education initiatives have a significant short-term impact but only moderate long-term impact on health outcomes. In addition, ODS found that more than 85 studies documented the importance of activation and the PAM's ability to measure this construct and to predict a broad range of behaviors, drivers of behaviors and health outcomes. Based on the research, ODS concluded that tailoring support to levels of activation would be an effective strategy for enhancing patient engagement and improving health outcomes.

The shift to this new approach to care was reviewed with internal and external stakeholders. As part of ODS' standard internal practice, the decision for selection

and continuation of quality initiatives rests with the ODS Medical Quality Improvement Committee (MQIC). The MQIC monitors and evaluates health care and services provided to ODS members to ensure that the care and services meet current standards of medical practice and clinical guidelines. The final stage of development was ensuring that departments and partners across the organization were in support of the program and communicating the change to the provider community and purchasers. The coaching team, leadership and internal stakeholders were trained on the new model of care. The marketing team also developed a press release to assist with program communication to internal and external customers. This took approximately four weeks.

Initiative Implementation and Rollout

Initiative implementation began with a pilot phase, which included changes to the health coaching program. The first step of implementation was moving to sole use of the PAM replacing the standard functional Short Form (SF)-12 health status survey as the primary assessment for ODS health coaching. At the initial launch, 1,100 members who had opted into the program were given the PAM survey. The 646 members who returned the survey were then contacted via telephone by a health coach who worked with the member and tailored coaching by evaluating the PAM results and incorporating this understanding into the dialogue. On completion of one-

on-one coaching, members were asked to complete a satisfaction survey and final PAM assessment to evaluate the effectiveness of the intervention.

Approximately one year following the launch of the pilot program, the second phase of the rollout began. This included expansion of the program to other parts of the organization, such as the care coordination and behavioral health departments. The program is now integrated within all medical management programs. Activation language and motivational content are built into all materials sent to members, such as workbooks and other communication materials. This provides a cohesive exchange that reinforces the goals of the behavioral-based model.

As part of the implementation, there was a significant investment in tools and resources. Financial investment included licensure of the tool itself and development of administrative and coaching-activation Web sites that are used for tracking and reporting. Internal systems also required development or modification for the tracking and analyzing of data. Since this program was a shift away from a traditional disease-management model, there were costs associated with continued training of the staff on a behavior- and activation-focused model.

Challenges

One of the major challenges faced by ODS was the learning curve associated with the shift from a traditional to a behavioral-based management approach. The health coaches

were unfamiliar with the new model and it was challenging to move from a standardized approach to one that was more fluid. Training and education were used to help the coach understand that effectively using the tool requires a customized approach. Although initially the transition was difficult for the coaches, over time they felt more comfortable and, therefore, effective in their role.

ODS also faced logistical challenges. Initially, the coaches administered the first PAM survey over the phone, whereas subsequent surveys were sent via mail. Early data indicated that there were discrepancies in patient responses when the surveys were not delivered in the same mode; patients who responded via telephone were more apt to be agreeable with the coaches administering the survey, and had less time to reflect on their responses. As a result, ODS now administers all surveys via mail.

Lastly, there were financial challenges. The cost of the licensure for the tool was initially viewed as a barrier to use. ODS leadership was provided with the research that demonstrated the importance of behavioral activation and the PAM's ability to measure this construct and predict a broad range of behaviors, drivers of behaviors and health outcomes. Once the program was presented to leadership, it immediately recognized its value.

Outcomes

Incorporating the PAM suite of interactive tools dramatically enhanced the health plan's efforts to engage members in actively

managing their health and wellness. The amount of time patients participate in the program depends on predetermined goals. While this time may vary, there is always an established goal that determines the completion of the coaching program. If members would like to establish new goals, they can reenter the program at any time. At any given time, approximately 3,000 members are participating in the program each month. To determine changes in activation, ODS performs pre- and postsurveys on all participating members and evaluates those data quarterly. As of 2009, overall PAM scores have increased by 7.9 percent, or 5 points. This positive trend continued in 2010. ODS has also seen an overall improvement quarter to quarter in member activation. Quarterly improvements have ranged from 24 percent to 61 percent of members moving from lower levels of activation to higher levels of activation. The findings, though preliminary, suggest that tailoring coaching to patients' activation levels and using the same metric to track progress improves the outcomes of health coaching.

Small increases in activation can have an impact on medication adherence, emergency room utilization and hospital length of stay. Therefore, the goal is for the final PAM score to improve by an average of 5 percent across all disease management programs and for the final PAM scores to be higher than those of the comparison population (members eligible for disease management programs but not engaged in health coaching). In 2011, ODS will use claims data to further validate

changes in the PAM scores. Early trends indicate a plateau, or slight reduction in emergency room/acute visits, improvement in medication adherence and a decline in length of stay during admission episodes.

The impact of this initiative has been very positive on ODS members and staff. By understanding participants' activation levels, health coaches have been able to better segment and tailor programs to meet the individual needs of the member. Through this approach, coaches are able to identify and encourage behavioral change opportunities that are realistic, achievable and that allow an individual to realize success and build confidence. Health coaching programs that meet the patients where they are, reinforce strengths and help motivate them on their journey seem to be the most effective. Tailoring support based on a PAM score has helped accomplish that.

Leadership has been able to allocate resources more efficiently by focusing coaching activities on the lower activated members who need the most support and leveraging more advanced technology and self-directed and on-demand solutions for the higher activated members.

Lessons Learned

ODS learned several lessons through challenges and successes. One of the key lessons was to ensure implementation of the program across all aspects of the organization. One of the reasons the ODS program was successful was due to the continued support of staff and

leadership company-wide. Another important element was ensuring that all staff members understood and had an appreciation for the change in care processes. The program should be viewed by staff members as an integrated approach to help tailor outreach and support to the members' needs. The staff believes that the change in behavior is going to positively impact outcomes and is, therefore, the key to success for ODS members and the greater community. It is also important that there is a level of flexibility. The staff and leadership are able to modify the program and tactics based on data and feedback.

Future Directions

As part of the next phase for the program, ODS has introduced an interactive Web portal for members that provides additional self-directed care assistance. Through this portal, the member completes the PAM survey and obtains a report, called myHealthStyle Health Report (see Appendix 6), displaying his or her health self-management style and level of activation. The portal also provides additional information in a manner that is meaningful and appropriate for the member based on responses to the survey. This new version of the tool will assist members in further behavior modification to improve care. However, direct mail is currently the primary method of survey delivery.

Conclusions

Shared decision making and patient activation are two key components of patient engagement. The OPTION scale and PAM allow for the assessment of shared decision making and patient activation, respectively. Studies using the OPTION scale have shown that shared decision making can have an impact on patient outcomes, while studies using the PAM have illustrated that it can be used by practitioners to tailor an individual treatment plan based on a patient's level of activation. Additional studies will be needed to continue to assess the usefulness and applicability of these measures in clinical settings, but the data that have been compiled to date suggest that these tools can become valuable resources for helping to increase patient activation and ultimately may improve patient outcomes.

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Barriers to Patient Engagement

Introduction

Although there is an increasing awareness of the importance of engaging patients more actively in their own health care, barriers to patient engagement need to be identified and addressed. These may include specific characteristics of patients that may make them less likely to engage or a general lack of patient “readiness” to engage. Health literacy and language barriers may also impact the ability of patients to engage. These factors should be addressed to realize the full potential of patient engagement.

Readiness of Patients to Manage Their Own Health: Where Do We Stand?

The best designed programs and tools to aid patient engagement may not work if patients are either unable or unwilling to use them. A 2007 study by the Center for Studying Health System Change used the Patient Activation Measure to assess levels of patient activation in the United States. Because people at the lowest levels of activation tend to be passive with regard to their health and health care, a strategy that reaches out to them may be the most effective at increasing engagement.¹

If the activation levels of the patients in a given population are known, it is possible to segment strategies based on these levels and use communication and support strategies that are tailored to the needs of these different segments. Because the activation levels in a given population are often not known, it is unclear which segments of the population are being reached. Because the more activated patients are more proactive about their health, they are the ones who are more likely to participate in a health-related program or seek out specific health-related information. Having a measurement that can be used to tailor programs and to track progress can be a tremendous advantage in moving patient engagement forward.

Figure 1 shows the percentage of patients in the study at each level of activation.¹ The levels of activation can be described as follows:

- At Level 1, patients are passive and lack the confidence to actively engage in their own health.
- At Level 2, patients lack basic knowledge and have little confidence in their ability to manage their own health.
- At Level 3, patients do take some action but still lack the confidence and skills to support all of the behaviors necessary to actively participate in their own health.

- At Level 4, patients have the skills and confidence to adopt many of the behaviors required to support their own health but may not be able to maintain these behaviors when faced with stress.

The Centers for Medicare & Medicaid Services (CMS) did an analysis of levels of patient activation among Medicare beneficiaries.^{2,3} The results of the analysis appear in **Figure 2**.

CMS found that 44 percent of Medicare beneficiaries appeared to lack the motivation to play an active role in making decisions about their health. These patients were divided into two groups: those that were passive (17 percent) and those that were complacent (27 percent). The latter group had the knowledge to participate, but they were not motivated to do so. Interestingly, 26 percent of beneficiaries were part of a group who had relatively high levels of motivation but lacked the necessary skills.^{2,3} These findings highlight two distinct barriers to patient engagement—lack of skills and motivation. If patient engagement initiatives are to live up to their full potential, it will be important to help patients become more confident in their abilities to manage their own care and increase their levels of activation.

Figure 1. Percentage of Patients at Each Level of Activation¹

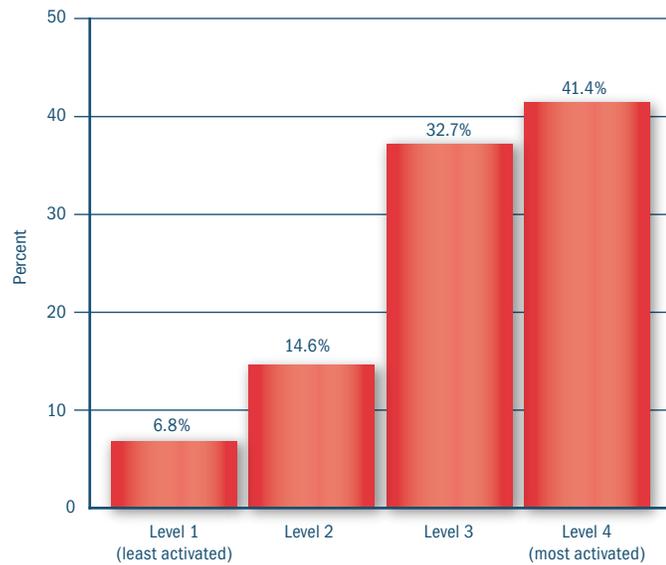


Figure 2. Medicare Beneficiaries' Skills and Motivations to Make Informed Health Care Decisions^{2,3}

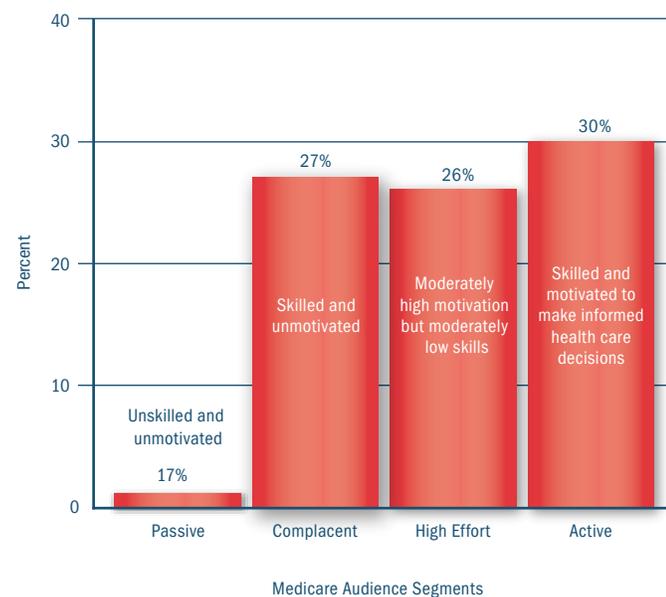
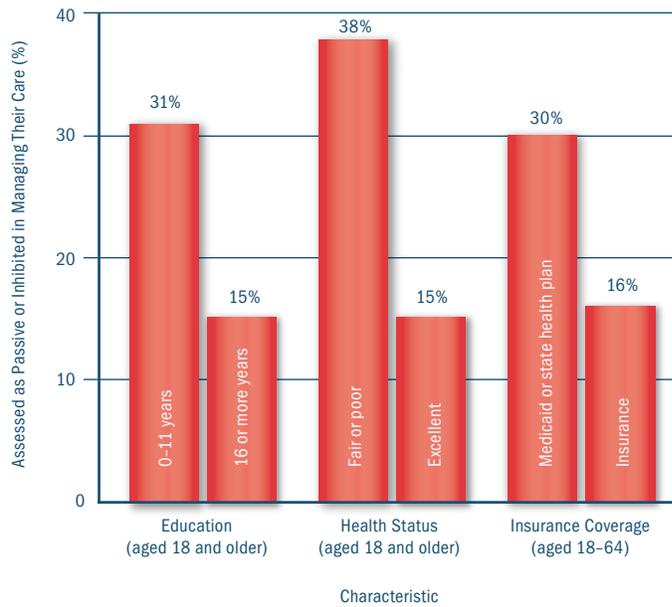


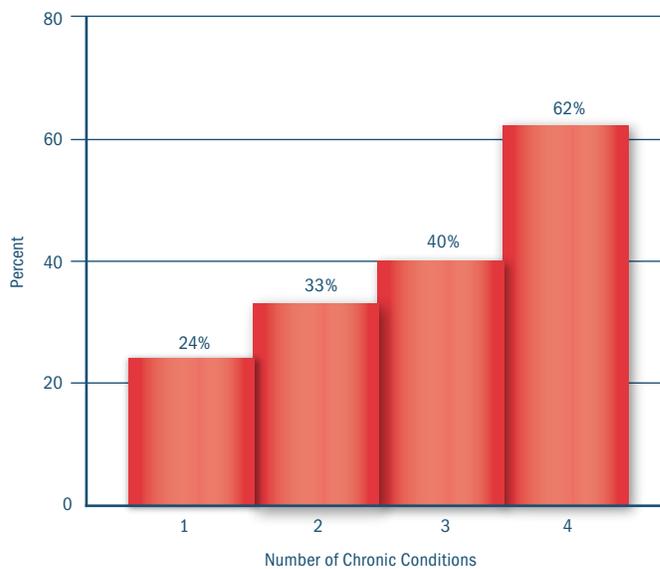
Figure 3. Select Adult Groups and Readiness to Self-Manage³



What Are the Characteristics of Patients Who Are Less Likely to Engage in Their Own Health Care?

The results of the 2007 CMS study of Medicare beneficiaries discussed above also identified characteristics of patients who were less likely to be engaged in their own care. Patients who were most likely to be passive or inhibited lacked a college education or were in poor health or were enrolled in either a Medicaid or state health plan (i.e., a health plan for state employees). Some of these data are summarized in **Figure 3**.³

Figure 4. Adults With Chronic Conditions Expressing Doubts About Their Ability to Improve Self-Care⁴



Percentage of respondents agreeing that "I wish I can change and do things that are healthier, but I just don't think I can."

Another study also found that patients in poor health are less likely to be active participants in their own care. A survey of chronically ill adults aged 44 and older was conducted in 2009. Many of the patients surveyed had multiple chronic conditions and reported several limitations that can hinder self-care, including pain, fatigue and emotional difficulties.⁴ **Figure 4** shows the relationship between the number of chronic conditions a patient has and his or her confidence in engaging in his or her own health care.⁴

These data indicate that the sicker a patient is, the less likely he or she will feel able to actively participate in his or her own health care. Even having one chronic condition can have an impact on patient confidence. People who are sick, however, may have the greatest benefit from engagement and self-management.

The Center for Advancing Health (CFAH) also identified patient characteristics that are associated with lower levels of activation.³ Low education, poor health and lack of health insurance were identified in this study and in the other surveys discussed previously as potential barriers to engagement. Additional barriers identified by the CFAH include low incomes, low numeracy (the ability to reason with numbers and other mathematical concepts), no Internet access and marginal health literacy.³ One study found that only 12 percent of Americans have the health literacy skills needed to manage their own health care. Health literacy includes a patient's ability to gather health-related information and use that information to assess the risks and benefits of a range of treatments or interventions. Patients should also be able to complete medical forms and calculate insurance costs.⁵

Because millions of Americans have at least one of the characteristics identified by CFAH, many adults in the United States do not have the ability to become active participants in their own care without help. However, the surveys do not collect and examine rates of response based on characteristics known to be related to greater or less activation. These types of data are crucial if there is going to be an attempt to describe the degrees of involvement in care by populations with possible disadvantages.³

Other studies have identified more specific challenges that can prevent patients from actively participating in their health care. In a study of patients who were discharged from the emergency room, 78 percent did not fully understand the discharge instructions. Many of the patients in the study did not realize that they did not understand the instructions from their health care practitioner.⁶ The Care Transitions ProgramSM developed by Dr. Eric Coleman uses personal health records, a Discharge Preparation Checklist and a Transitions CoachTM to assist patients with the transition from the hospital and help them overcome any barriers they may face.⁷

Language barriers prevent many patients from actively participating in their own health care. Approximately 49.6 million Americans speak a language other than English at home and 22.3 million Americans have limited English proficiency. Patients who face language barriers are less likely to have a usual source of medical care and are less likely to use preventive services.⁸ Many patients need medical interpreters to communicate with health care practitioners but do not have access to them. Socioeconomic status is another potential barrier that may have an impact on health outcomes.^{8,9}

An Australian study explored the barriers that health care practitioners face when helping patients with cancer make treatment

The Care Transitions ProgramSM is based in the Division of Health Care Policy and Research at the University of Colorado Denver, School of Medicine. The Care Transitions ProgramSM is made possible in part by the generous support of The John A. Hartford Foundation.

Transitions CoachTM is a trademark of The Care Transitions ProgramSM.

decisions. Most common were insufficient information during the first consultation, insufficient time to spend with the patient, patients having other health problems, patient misconceptions about their disease, indecisive patients, anxious patients and patients not understanding information. The study also explored factors that facilitate treatment decision making. Patients trusting their health care practitioner and patients who were accompanied during the consultation and the providing of written information were the most commonly cited factors that help facilitate treatment decisions.¹⁰

The following Profile describes the development and implementation of a strategy to identify pregnant women who may face barriers to patient engagement and provide them with the tools and education needed to effectively reduce their risks and pregnancy complications.

Profile:

Engaging High-Risk Members to Improve Pregnancy Outcomes

Background

Early prenatal care and healthy lifestyle choices are extremely important for women who are pregnant. Therefore, Centene Corporation, a health care company based in St. Louis, Missouri, that specializes in uninsured, underinsured and Medicaid populations, collaborated with providers to develop a program that allowed for timely identification and risk stratification of members who were pregnant and intensive interventions that had a high impact in a short period of time. Centene's program focuses on early risk screening, case management, member education and member engagement to have a stronger impact on positive pregnancy outcomes, neonatal intensive care unit (NICU) rates and postpartum outcomes that extend into the first year of the infant's life. This program is called Start Smart for Your Baby®. The goal is to not only improve care coordination for members who are pregnant but empower them to make the right choices for a healthy pregnancy and baby.

Overview

Women with Medicaid coverage often face social and financial barriers that can lead to nonadherence to recommendations for prenatal care. To address such issues, Centene developed a strategy to identify women with potential risk factors for nonadherence

and provide all members who are pregnant with the tools and education needed to effectively reduce their risks and pregnancy complications. As part of this approach, Centene uses the Start Smart for Your Baby® program to engage members who are pregnant and improve outcomes for the pregnant women and their infants. The program is currently being used by all 10 of Centene's health plans and is a standard program offered to all members who are pregnant. Currently, there are over 60,000 pregnant women a year enrolled in Centene's Medicaid plans.

Start Smart is based on a care continuum that goes beyond the traditional high-risk obstetrician (OB) case management model. It interweaves various programs to facilitate health, focusing on creating a trusting relationship with the member to provide education and support during the postpartum period. Start Smart consistently achieves successful results by incorporating the following principles:

- Early identification and intervention in high-risk pregnancies using a case management model. This includes a comprehensive organizational approach to identify members who are pregnant and a robust educational campaign aimed at members and providers around the completion of the notification of pregnancy (NOP) form.

- Education and incentives for healthy behaviors for all members who are pregnant regardless of risk
- Postpartum outreach to decrease the risks in future pregnancies

One of the central components of the program is the NOP form (see Appendix 7). It is part of a streamlined approach that aims to identify and engage members who are pregnant as early in their pregnancy as possible to establish a relationship between them and their health plan. Interaction with pregnant members enables Centene to help them gain access to prenatal medical care, provide them with education specific to their health care needs, assist them with social needs and concerns and coordinate referrals to appropriate specialists and the OB Case Management Program as needed.

The NOP form captures the pregnant member's current contact information, provider information, estimated due date and medical history. Based on this information, a risk score is assigned. This determines the course of action to be taken in regard to the member's pregnancy. For example, patients in the low-risk group receive educational materials, those in the medium-risk group are monitored and high-risk members are referred to case managers. The program strives to educate and empower all pregnant members to take part in improving their health and that of their unborn babies and newborns.

The strategy uses several tools to accomplish its goals of identification, engagement and education. A Web-based member portal was developed to increase the ease of submitting NOP forms. Numerous educational materials

were developed specially for the program. These include educational books such as Start Smart for Your Baby®'s *Your Pregnancy Guide* and *A Guide to Your Baby's Care—The First Year*. Another program that encouraged member engagement was the cell phone program. This targeted high-risk members who did not have safe, reliable access to a cell phone. These women were provided with free cell phones, which could be used to contact their OB, primary care physician or used for support such as reaching out to family members or the National Domestic Abuse Hotline. Approximately 1,500 pregnant members have received a cell phone since the initiation of the program in 2007, and approximately 300 pregnant women have a cell phone from Centene in their possession at any given time. In addition to cell phones, MP3 players loaded with educational podcasts and audiobooks were distributed to members who would benefit from receipt of information in that format. These materials included a pregnancy book in audio format and multiple educational podcasts that the member could access. The Start Smart for Your Baby®'s *Your Pregnancy Guide* audiobook won a gold medal at the Web Health Awards for 2010 and the podcasts won a Merit Award.

Start Smart also employed incentive programs to encourage patient engagement, e.g., providing a thermometer to a member when she completes and submits the NOP form. Over 20,000 member NOP forms have been submitted since the initiation of the program in 2008, with a 10 percent return rate when submitted via mail. These returned forms comprise approximately 20 percent of all received NOPs, with the remaining 80 percent coming from providers or health plan

outreach efforts. A unique incentive used is the CentAccount rewards program. As part of this program, members can earn dollars on a restricted-use credit card for completing healthy behaviors, such as going to a prenatal visit. This money can then be used to buy health care— and child care—related items, such as diapers. Rewarding members for targeted healthy behaviors increases the likelihood that such behaviors will be continued through positive reinforcement.

Initiative Development

Inception of the program was driven by observations collected from Centene’s health plans that indicated many women who were pregnant were not being identified by the plan until they went into labor or after they had given birth, and that there was a lack of direct, in-person communication between case managers and members who were pregnant. This led Centene to focus on early identification and engagement of pregnant members. Initial steps in the program included creating processes and investment in information technology infrastructure that would ensure a streamlined identification process. This included automatic distribution of NOP forms to the members via mail once a potentially pregnant patient was identified in claims data. Automated phone messages were also used to obtain NOP information. In addition, several technology-based tools were employed to streamline communication and distribution of data among Centene, members and providers. A Web portal for providers and members was developed and an electronic system for distributing completed forms to case managers was established.

Educational materials for pre- and postpartum women were developed specifically for the program. Centene worked with community and professional medical organizations, such as the March of Dimes and American Academy of Pediatrics, to ensure the educational materials met the needs of the Medicaid population. Collaboration with such agencies also provided an additional level of credibility for the program.

A critical step in this process was working with individual Medicaid agencies to ensure consistency of material across all states. This was particularly challenging because state agencies are used to working independently of one another. However, Centene managed to overcome any barriers through direct communications to state and agency contacts. During these communications, organization representatives educated these contacts on the program, how the materials would be used and the importance of having consistency among the materials.

Initiative Implementation and Rollout

Once the materials were developed, a large portion of implementation and rollout focused on increasing stakeholder awareness and fostering communication among them. Centene encouraged case managers across states to share information and successful practices for patient identification and engagement. In addition, Centene introduced the MemberConnections representatives— nonclinical employees who serve as health plan concierges—to the case managers with the goal of streamlining the process of member communication. Centene fostered

these relationships through several means, such as having the connections representatives join the OB case rounds across the country. Centene also used a provider initiative to encourage communication between OB case management staff or provider relations staff and individual providers. As part of the provider initiative, case managers and provider relations representatives would visit provider offices to distribute materials and explain the program. These representatives provided a strong, consistent message to all providers that encouraged and explained the NOP and stressed the importance of the Start Smart program.

Outcomes

Centene's main goal was to improve pregnancy outcomes, specifically, NICU days/1,000 births, the neonatal admission rate and NICU admission rate. The organization also sought to improve gestational birth weights and Healthcare Effectiveness Data and Information Set (HEDIS) measures (timeliness of prenatal and postpartum care

and frequency of ongoing prenatal care) (see **Figure 1**).

Between 2007 and 2010, the program demonstrated a statistically significant reduction in the number of days spent in the NICU, NICU admission rates and number of low, very low and extremely low birth rates. NICU days/1,000 births decreased from 575 days/1,000 births in 2007 to 422 days /1,000 births in 2010. The NICU admission rate decreased from 4.61 percent in 2007 to 3.79 percent in 2010.

The NOP is a key element of the program. Use of this tool is associated with improved outcomes. For example, compared with members not using the NOP, there are 31.2 percent fewer instances of low birth weight under 1,000 grams, 20 percent fewer instances under 1,500 grams and 7.9 percent fewer under 2,500 grams (see **Figure 2**).

The case management portion of the program has also been shown to be effective. Fewer low birth weights occur with patients case

Figure 1. There Is Improvement in Several Measures of Care

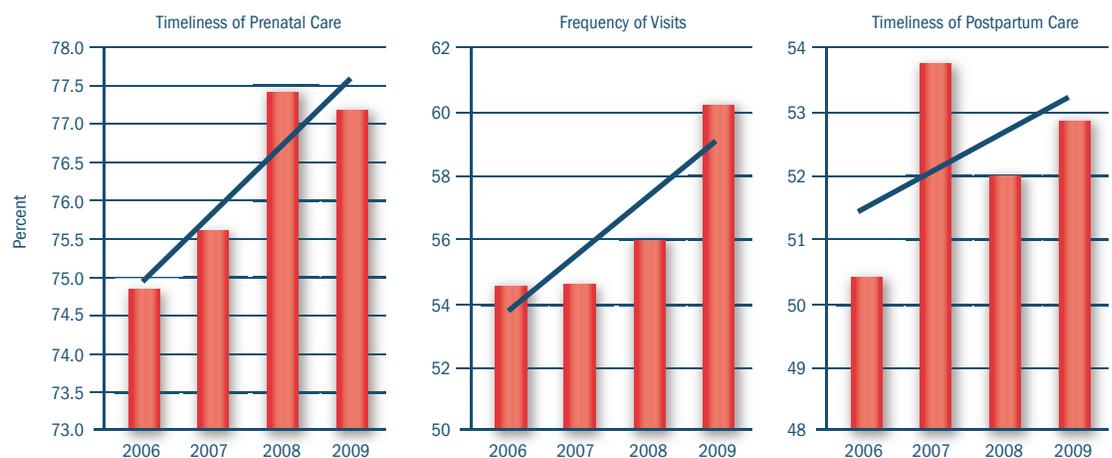
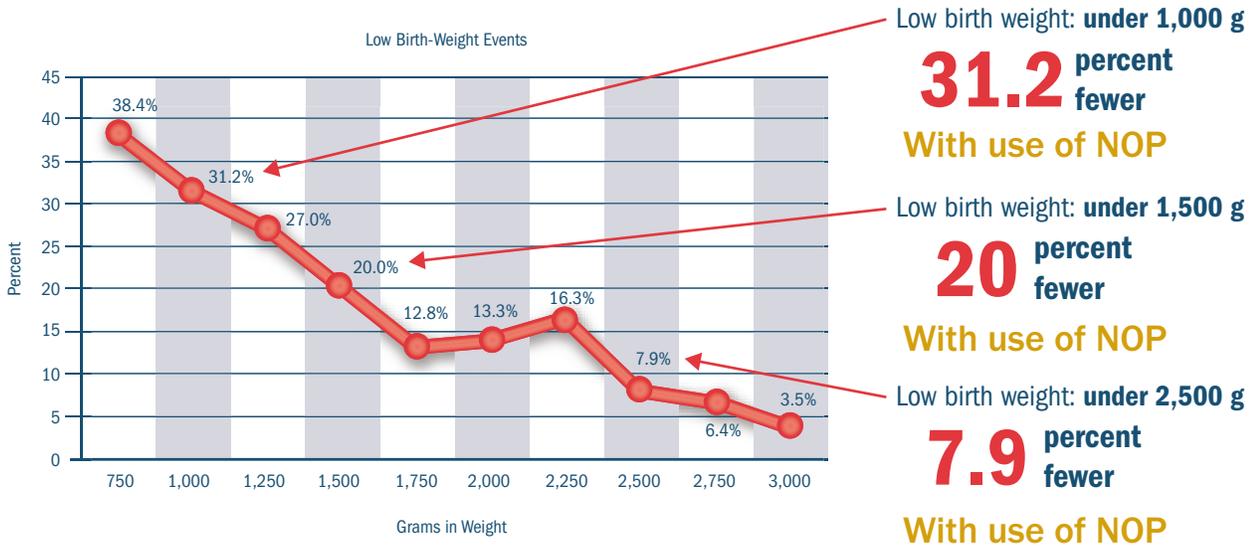


Figure 2. The NOP Is Instrumental in Driving Improvement With Pregnancy Outcomes

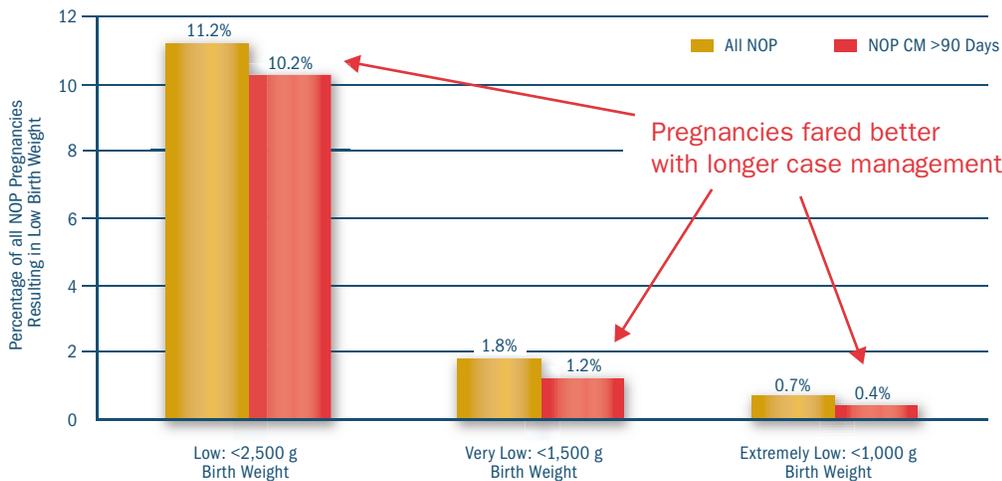


managed for more than 90 days compared with the overall population (see **Figure 3**). This is particularly significant since the case managed members are selected because of their high-risk profile; therefore, worse outcomes would be expected for those members.

The use of the program has also grown, as a

result of increased involvement by members. The percentage of births accompanied by an NOP form within eight months before delivery increased from 25.2 percent to 56.55 percent from 2007 to 2010. In addition, there has been an increase in child immunizations and well visits associated with the program.

Figure 3. When Pregnancies Are Case Managed >90 Days, Fewer Low Birth-Weight Outcomes Occur



Patient satisfaction with the program is high, with over 95 percent of patients indicating they are satisfied with the program (when asked during a follow-up discussion with their case managers). There is also anecdotal evidence that indicates patients found the program materials extremely helpful, specifically the cell phones and the podcasts, suggesting use of technology within the Medicaid population can be effective in increasing access and Internet use as a means to increase patient engagement.

Start Smart has also been shown to be a cost-effective program. The cost for Start Smart, including staffing, educational materials and incentives is \$5.00 per member per month for the pregnant population. This translates to about \$75 per pregnancy and postpartum period. When taking into account the avoided NICU admissions and associated pediatric costs in the first year of life, the return on investment is substantial and the program has paid for itself. In 2010, Start Smart saved \$14 million dollars in avoided NICU costs.

Lessons Learned

Centene has learned several important lessons during all stages of this program. Ensuring support for the program internally and externally was a key lesson. Centene found that it was important to garner support from outside medical management and involve all employees in the organization in the process. A paradigm shift in culture at the organization was needed to make it successful. Centene stressed to all employees and stakeholders that it was everyone's responsibility to identify women who were pregnant, not just medical management. This required education and

support from all levels to ensure success. Fostering solid relationships and support from professional organizations and state agencies were also of great benefit during the early stages and in maintenance phases of the program.

Incentives were another key element for success for the member and the provider. Centene used several incentive programs to encourage patient engagement in the program and found that these programs led to successful outcomes.

Tailored education and interventions are also important to the success of a program. For example, interventions should be tailored to different age groups. A 20-year-old woman who is pregnant learns and receives educational information differently than a 40-year-old woman who is pregnant. Ease of use is another essential component. Forms should be short and not labor intensive to complete. Every potential mode for completing the form should be provided (Web, phone, fax, mail) to encourage completion of materials.

Future Directions

Currently Centene is working to augment the program by focusing on a breastfeeding initiative aimed at mothers of NICU infants. The goal is to ensure these mothers have the proper equipment and that the case managers have continual communications regarding training and the importance of breastfeeding, particularly through the first months of the baby's life. The program is also extending postpartum follow-up of communication and care for the mothers and infants.

Implications of Barriers to Patient Engagement

The results of the studies and surveys presented in this chapter indicate that, in general, there is a relatively low level of patient activation in the United States. Several barriers to patient engagement have also been identified, including low education, poor health and lack of health insurance.

The first steps toward increasing levels of patient engagement are understanding the extent to which patients are passive or lack confidence in their ability to manage their health and identifying other barriers to patient engagement. The next steps will be to develop tools and initiatives targeted toward these populations to help them overcome these barriers and become more active in their own care, with the goal of improving health outcomes.

The following Quality Lesson describes the implementation of a strategy designed to help overcome a lack of readiness to engage in one's own health care. It explores the effects that various social media tactics have on adolescents' willingness to participate in the health care system.

QUALITY LESSON

Utilizing Social Media to Encourage Adolescents' Engagement in Their Health Care

Background

Adolescent health literacy and interaction with the health care system have been areas of growing interest. Although 92 percent of adolescents are insured, few have had experience navigating the health care system, particularly those from disadvantaged backgrounds. Recent efforts to educate teens about health services available to them have utilized social media as the primary method to connect and deliver information. Health Net, Inc. and the University of California Los Angeles (UCLA) initiated the Adolescent Health Literacy: Improving Use of Preventive Health Services intervention to explore the effects that various social media tactics have on adolescents' willingness to engage in the health care system by constructing a Web site that increased the accessibility and availability of health care information.

Rather than focusing on health directly, the Web site covers lifestyle issues for teens to help them live life to the fullest and how to use their health benefits to accomplish this. The project is a comprehensive health education campaign using a conceptual framework of engaging teens through social activities (e.g., blogs, chat events, contests, trivia, etc.) that revolve around targeted

theme activities (e.g., obesity, immunizations, stress, etc.) that in turn impact the desired domains (annual well care visit; patient-doctor relationship navigating the health care system; benefits, rights and responsibilities and health care-seeking information). Additional means of communication, such as e-mail and text messaging, were also employed to measure and improve adolescents' health care literacy. Improvement measures were defined as whether health care insurance benefits were used appropriately for preventive care and treatment.

Description

Health Net, Inc. is one of California's largest managed care health plans. The partnership between Health Net and the UCLA School of Public Health was solidified during the earliest stages of the program's development. After receiving a grant from the National Institutes of Health (NIH), the team worked to meet all UCLA Human Subjects Protection Committee Institutional Review Board (IRB) and Health Net's IRB guidelines and worked with an advanced technology company to develop the Web site. There were two initial key development groups: the health care literacy research group and the formative research group—the former focused on the design and

structure of the program (i.e., recruitment and randomization strategy) and the latter attended solely to content development and Web site construction. During the preliminary stages of Web site development, 14 focus groups of adolescents were engaged for research purposes; 8 pediatricians with teen patient populations were also interviewed during this process. Although the development costs were high, maintenance costs were kept considerably lower.

Health Net and UCLA implemented a randomized, controlled trial to compare the effectiveness of the innovative social media intervention against the standard, or usual care, model. Participants were recruited by IRB-approved questionnaires, which were written at a sixth-grade reading level, consistent with health literacy principles/guidelines. The desired 5,600 nonsibling participants with Internet, e-mail or text messaging access evolved into a final sample of 1,376 Health Net patients. The second of the two-wave, repeated-measures surveys will be administered at the completion of the study. They assess participant knowledge of the health care system, encounters with primary physicians and attitude toward health care and health-related behaviors.

With social media and technology evolving, Health Net and UCLA modified their original plan of inviting participants to join the Web site via e-mail. The updated outreach strategy included e-mail and text messaging when available, imposing a strict character limit on the messages. Most participants were responsive after 6 text messages but began to interpret the program as spam after 10. On the Web site members can interact in chat events, games and contests, and read about specific topics of interest and educate themselves on topics such as improving relationships with primary health care providers. The Web site's key features are adjusted based on the level of responsiveness to specific techniques and subject matter.

Outcomes

The intervention is ongoing, and no finalized data have been acquired. Once final surveys are distributed, demographics data from the surveys will be added to utilization data collected via the Web site. Additionally, administrative data will connect individual users' survey results to their Web site profiles, indicating how specific user trends affect overall health care literacy.

QUALITY LESSON (cont'd)**Conclusion**

Advancements in the social media industry allow for new, creative health interventions aimed at improving quality of life. Health Net, Inc. and UCLA's virtual health care literacy intervention is increasing connectivity with adolescents who have limited engagement in the health care system. The degree to which the intervention is successful will be determined within the year.

Acknowledgements: This research is supported by a grant from the NIH/National Institute of Child Health & Human Development (5 R01 HD059756-02) and is a partnership between the UCLA School of Public Health, Health Net, Inc., EPG Technologies and Weinreich Communications.

The following Profile describes the implementation of a strategy designed to help overcome various barriers to improving the health of patients with diabetes. The goals of the strategy were to increase patient knowledge and awareness regarding disease screening and management, increase patient adherence to medication and reduce costs.

Profile:

Empowering Patients With Diabetes Through Coordinated Efforts of a Health Plan and Health Care Providers

Background

Diabetes is a health care condition that can lead to higher costs for patients and health plans. An analysis by Blue Cross and Blue Shield of Florida (BCBSF) of members who were employed with the Marion County Public Schools found that diabetes not only contributed to high costs of health care for the school board employees but often negatively impacted some employees' ability to perform their duties. To help the Marion County Public Schools and their employees address these issues, BCBSF developed the Diabetes Management Program with the goal of education, screening and improvement in health goals for patients with diabetes.

Overview

BCBSF is the largest health insurance plan that serves more than four million members. In the Marion County Public Schools, there are 7,927 individuals on the plan. During an analysis of Marion County Public Schools' membership base, BCBSF found that diabetes was a significant driver of increasing health care costs. However, it was not just the issue of cost that caught the organization's attention. A risk management evaluation of the school system found that many school bus drivers were failing the transportation department's mandatory physical exams due to high blood

sugar or blood pressure (BP) screening scores. Such failures can result in drivers being placed on probation or even termination of employment. These findings prompted BSCBF to develop a program that would encourage patient education and participation in diabetes management and improve patient outcomes.

The program has several goals, including providing employees and spouses with education to better manage diabetes, increasing diabetic screenings, improving screening scores, increasing medication adherence and realizing cost savings for the school board and the employee. To achieve these goals, the program has several requirements. First, members participating in the program must complete the Diabetes Healthways™ education course at Munroe Regional Medical Center. After completion of this program, members must complete American Diabetes Association (ADA)-recommended screenings. And finally, employees must complete a personal health assessment and satisfaction surveys when requested.

The program offers several incentives for members who complete the program. Critical supplies and medications are available to program participants free of charge, including prescription medications for diabetes and for

conditions associated with diabetes (e.g., high cholesterol and BP), and supplies such as monitors, strips and lancets.

The wellness coordinator was employed by and located in the office of the local Barret, Liner & Company agent and was responsible for wellness programs for the entire school system. The coordinator was often on site at schools, bus depots or other school locations. This onsite coordinator facilitated communication with participating members and the various stakeholders in the program. The coordinator was tasked with managing the educational classes and the health screenings, and was also available as a resource to answer questions and assist members participating in the program.

After rollout of the program, BCBSF expanded its member engagement strategies based on feedback from participating employees. BCBSF found that many members who completed the diabetes education class and screenings were requesting additional support, particularly related to nutrition. BCBSF identified two additional resources for the employees to accommodate this need. First, through the hospital's Diabetes Healthways™ program, patients were made aware of existing onsite support groups, and additional support groups were created specifically for Marion County Public Schools employees in the evenings to accommodate their work schedules. Second, through BCBSF's Wellness Program, health coaching was made available to members by telephone.

BCBSF's efforts to address diabetes-related issues encouraged the Marion County Public

Schools to undertake their own educational and support programs for employees with diabetes. The school board has embraced a culture of health and wellness. These efforts have also contributed to encouraging patient engagement among the school system's employees.

Initiative Development

Initiative development began by examining the barriers to diabetes management in BCBSF members who were employed by the Marion County Public Schools. Early in the process, BCBSF found that cost was a significant barrier for members. To address this, BCBSF decided to put several measures in place to cover many of the costs associated with diabetes, such as diabetes education, screenings, medication and supplies. The plan also provided the ADA-recommended screenings in one location for easy access.

To successfully undertake this program, BCBSF needed the buy-in and cooperation of not just the Marion County Public Schools but also the Marion County Public Schools Risk Management department, BCBSF's Sales and Pharmacy departments, a BCBSF local agent, Barret, Liner & Company and the Munroe Regional Medical Center. The local agent spearheaded the organization of the program by convening a planning meeting where stakeholders identified the issues and made decisions regarding program development.

Development of the program began with BCBSF leveraging an already existing relationship with Munroe Regional Medical Center and its established wellness program. The hospital staff, who conducted the

screenings, modified their schedules to include evenings and Saturdays. This included all relevant staff, such as lab technicians and podiatrists to provide a “one-stop shopping” standard of care for members. Throughout this process, all parties involved were dedicated to making the program a success.

To make members aware of the program, BCBSF identified patients with diabetes by using its informatics (e.g., information based on lab work or medication). These members were sent a letter inviting them to participate in the program. In addition, BCBSF’s Sales department presented the program during open enrollment meetings and invited members or potential members to participate. The sales team also distributed a flyer, which had information on whom to contact if the member was interested.

In addition to education about the program, BCBSF knew that there was a potential for resistance to participation due to concerns about termination of employment. Many employees felt that if their employers were aware of their participation in the program, they could possibly lose their jobs. To address this, BCBSF developed a promotional video highlighting the diabetes management program that included representatives from BCBSF and current participants. The goal of the video was to show potential participants that the purpose of the program was to benefit them and that their coworkers were already benefiting from the program.

Initiative Implementation and Rollout

The program required significant coordination between the onsite wellness coordinator,

Marion County Public Schools employees, the Munroe Regional Medical Center Diabetes Program and BCBSF’s Sales, Wellness and Pharmacy departments. Weekly meetings were scheduled with all parties involved to continually identify barriers and solutions. Frequent communications with employees, by mail and phone, were used to ensure a smooth implementation of the program and to address any potential issues or concerns.

The first step of implementation was to get employees to sign up for the program. After 25 to 30 employees were signed up, the initial educational class was held for that member group. The next phase was screening, followed by members completing the personal health assessment. The personal health assessment was used to gather biometric data and to identify other risk factors. Implementation required coordination with the pharmacy to ensure benefits for the individual members were reviewed. This was particularly important because the program incentives could potentially conflict with a patient’s benefit package. For example, one of the incentives was the cost waiver for the medications, which required some additional time and coordination with the health plan to resolve any incentive-benefit conflicts on the part of the pharmacy.

Challenges

One of the major challenges BCBSF initially faced was related to difficulties with pharmacy claims payments. Initially, this resulted in employee dissatisfaction with the pharmacy and required coordination between the onsite coordinator and BCBSF’s Sales and Pharmacy departments. To address this, a process was implemented that enabled faster

communication and resolution of such issues. The onsite coordinator immediately notified BCBSF’s Sales department of any issue with an employee pharmacy claim, and BCBSF Sales worked with Pharmacy to resolve the issue. The onsite coordinator was kept abreast of the status and communicated necessary updates to the employee.

Outcomes

Currently, 255 BCBSF members in the Marion County School Board system are active in the program and at various stages of participation, with some in their third year. Since the program’s inception, the number of members with diabetes has increased yearly from 428 in 2007 to 772 in 2010. This may be due to the increase in members who are screened and identified and an increase in enrollment.

As part of the evaluation process, BCBSF identified the following outcomes for assessment: 1.) decrease in medical costs,

2.) change in lab/biometric values, 3.) change in individual and composite risk status and 4.) medication possession ratios. Success was determined through a pre- to postanalysis of participants focused on their lab/biometric measures and individual and composite risk status.

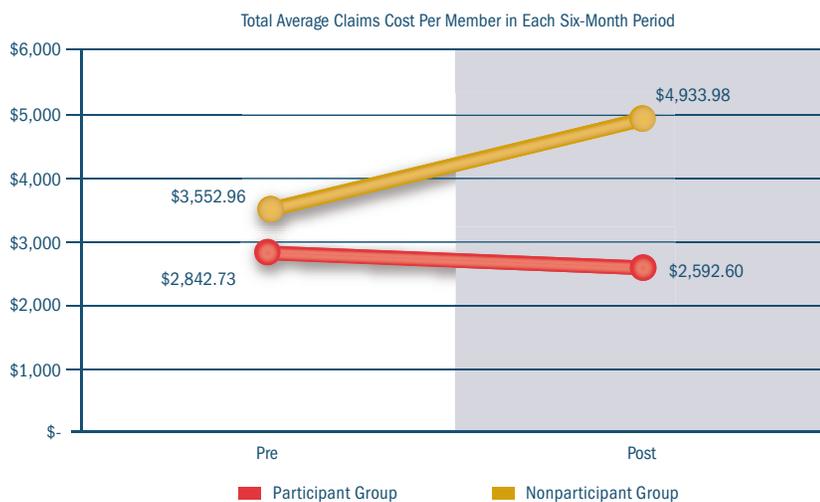
1. Medical cost savings for participants versus nonparticipants pre- to postperiod:

Members participating in the program had on average lower total costs compared with the nonparticipant group from the outset (Figure 1). The participant group had a 9 percent decrease in cost, while the nonparticipant group increased its total cost 39 percent (pre- to postperiod). Because there were differences between the two groups at the beginning of the intervention, an adjusted analysis was performed to decrease the possibility that these differences may have had an impact on the outcomes.

The group participating in the program also had decreased inpatient costs compared with the nonparticipant group from the outset (Figure 2). The participant group had a 5 percent decrease in cost, while the nonparticipant group increased 81 percent (pre- to postperiod). Because there were differences between the two groups at the beginning of the intervention, an adjusted analysis was performed to decrease the possibility that these differences may have had an impact on the outcomes.

Study results demonstrated that improvement in diabetes-specific lab results also affected costs, which is consistent with results seen in published

Figure 1. Total Average Claims Costs Per Member in Each Six-Month Period



studies. A 1.0 decrease in hemoglobin A1C (HbA1C) was associated with a decrease in cost. Savings may be associated with reductions in emergency room (ER) visits, hospitalizations and microvascular complications, such as kidney or eye disease. Participants in the Marion County Public School program whose HbA1c decreased by >1.0 had an average member reduction in total costs (i.e., inpatient, outpatient, ER and physician) of \$2,067 from their original baseline.

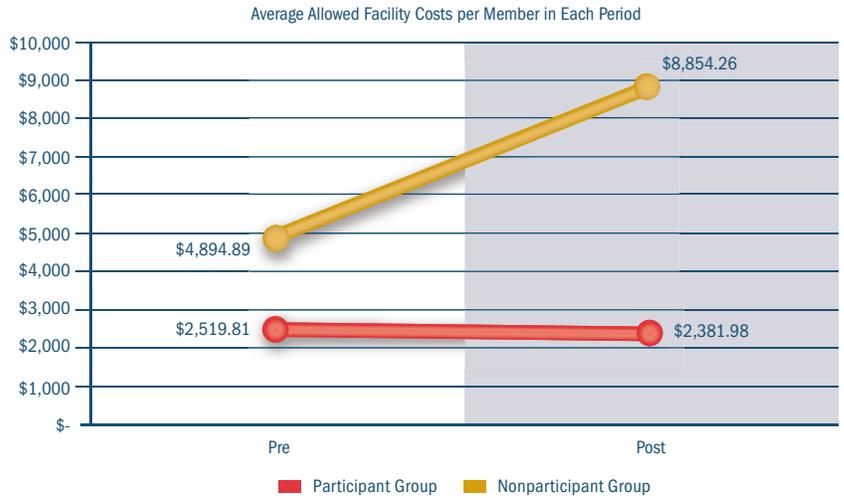
2. Lab value/biometric changes for participants in a positive direction:

Results indicate that participants are completing ADA-recommended screenings and their scores are improving, as seen in **Figure 3** in the reduction in overall risk data.

3. Individual and composite measures of risk show a reduction in overall risk for participants:

Of the eight screenings completed pre- and postperiod, participants reduced their risk by lowering their lab values or biometric scores in six out of the eight areas measured. The overall risk included member lab values for high-density lipoprotein (HDL), low-density lipoprotein (LDL), HbA1c, body mass index (BMI), BP and cholesterol ratio. The total number of risks and migration of HbA1c and BP levels also showed a statistically significant change over time. In addition, more participants moved to low

Figure 2. Inpatient Costs: Pre- to Postperiod



risk than to high risk in seven out of eight areas (total cholesterol, HDL, LDL, HbA1c, BMI, BP and cholesterol ratio). Over time there were also fewer participating members with three or more risk factors; there was also movement toward lower risk over time. A total of 8 percent of those in three or more risk categories moved to a lower level of risk (Figure 3).

Figure 3. Pre to Post Change in Percentage of Patients in Each Risk Category



4. Positive medication possession ratio patterns in four classes of diabetes-specific medications:

Trends in medication persistence showed improvement in favor of participants compared with nonparticipants. Medication possession ratios are calculated as the sum of the day's supply for all claims during a defined period of time. In this case it was the analysis period, divided by the number of days to have elapsed during the defined period.

Lessons Learned

One of the major lessons learned was that communication is a key part of the process. As part of that process, it is essential to have a person who is the central point of contact who takes ownership and overall responsibility for the program. For BCBSF's diabetes program, this was the onsite coordinator who facilitated efforts across the various participating organizations and their representatives. This position was essential to the success of

the program. Another important lesson was the importance of having a clearly defined, primary goal that resonates for all participating individuals and organizations. In the case of BCBSF's program, all stakeholders had the common goal of striving to do what was best for the employee, which included an overall need and desire to be flexible and adaptable to the specific needs of the employees.

Future Directions

The diabetes program created for the Marion County Public Schools is being used as a model for other employer groups to help initiate diabetes programs for their employees. BCBSF has rolled out similar programs for two other school boards and continues to identify other areas where the program could be of benefit. BCBSF is also currently working on plans to roll out a similar program at a mental health facility and for BCBSF plan members within a city government.

Conclusions

Identifying barriers to patient engagement and developing tools and initiatives designed to help patients overcome these barriers and become more active in their own care is an important first step. Better tools and knowledge are a good place to start, but factors such as access, competing priorities and motivation are also critical to understand how to address transforming patients from passive to active. The therapeutic relationship between the clinician and patient also need consideration.

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Putting Patient Engagement Into Action

This edition of *Quality Profiles™: The Leadership Series* has focused on the potential for patient engagement strategies to improve health outcomes. Providing support and tools that focus on increasing patient knowledge, skills and confidence and information that is accessible and timely to patients may aid them in becoming more active in their health care and in making informed decisions. Informed, activated patients are a key component to addressing a variety of concerns in the health care system, including quality, access and cost. If they have the support and information they need, patients may be better able to make choices that are consistent with their own personal preferences, needs and values.¹

However, having the information available is not enough. It should be easily interpreted, usable and relevant. It should also accommodate various patient groups, including those with different levels of English proficiency or literacy levels. The information should also be relevant to the decisions they need to make. Widespread dissemination of information through trusted organizations is also important if patients are to feel confident

that the information they have is reliable. Even where such information is widely available, motivating patients to actually use, be guided by and act on the most critical health knowledge and behaviors is still far from optimal. At a systems level, purchasers, including private and public programs, can create and implement new incentives for health plans and provider organizations to compete on performance by improving the efficiency, accessibility and effectiveness of care through a strong emphasis on patient engagement.¹ While information is important, it is not sufficient to activate and engage patients. Patients may need support, encouragement and the opportunity to gain confidence and skills in the many areas in which they must function.

Patient engagement can be an important approach to achieving improved quality of care. Other strategies include performance measurement, payment reform and health information technology (HIT). In practice, these approaches will be more successful if they are done together. For example, investments in electronic health records (EHRs) and other HIT tools may add to costs without benefit to patients

or practitioners if changes in health care practices and patient engagement are not implemented. The “meaningful use” policy implemented by the U.S. Department of Health and Human Services links incentive payments for EHR adoption to specific quality improvements, performance measurements and patient engagement functions that can be enabled by the technology.²

Implementing patient engagement strategies with other changes in the health care system may result in greater quality improvements than those that may be obtained with patient engagement strategies alone. The Patient-Centered Medical Home in primary care, and its expansion and extension into specialty and hospital care—the Accountable Care Organization—are examples of efforts to combine multiple reforms and transformations in the health care system. Although there is still more to learn about how efforts to combine multiple strategies (HIT, payment reforms, performance

measurement and patient engagement) will impact quality of care, it is likely that these approaches working in tandem will help to optimize their individual potential.²

It is now expected that individuals be responsible for making many important decisions about their own health care, including when (or if) to seek care, what plans and providers can meet their specific needs, how to manage their health and how to cope with potentially conflicting advice from providers, friends and family. They are also expected to navigate an increasingly complicated health care system with regard to seeking and utilizing health care services.³ Health care professional organizations, health plans, hospitals, consumer advocates and government agencies all need to develop and implement strategies to reduce barriers to patient participation in health care, producing better tools to support engagement and ensuring that health care is accountable to and with the individuals who use it.⁴

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Appendix 1

COPD Questionnaire

Great Expectations^{®+}
FOR HEALTH

Name: _____
 Personal Physician: _____ BlueChoice[®] HealthPlan ID #: _____
 Home Phone #: (____) _____ Cell Phone #: (____) _____ Work Phone #: (____) _____
 Best number and time to reach you: _____ E-mail address*: _____
 What is your: Weight _____ Height _____ Race (optional) _____

*Disclosing your e-mail address is optional. By providing your e-mail address on this form, you are allowing BlueChoice HealthPlan to send information related to health and disease management programs to you via e-mail.

Medical History

- In dealing with your COPD (emphysema and/or chronic bronchitis) during the **past year**, how many times have you:
 - Visited your personal physician for COPD? _____
 - Been to an emergency room for COPD? _____
 - Been admitted into the hospital for COPD? _____
- Do you sleep flat on your bed? Yes No
 If not, how many pillows do you sleep with? _____
- Do you use: Cigarettes Cigars Chewing Tobacco Are you frequently exposed to second-hand smoke? _____
 How many years have you used tobacco products? _____ How much per day? _____
- How you been taught the following breathing techniques?
 - Pursed lip breathing Yes No
 - "Blowing Bubbles" Yes No
 - Diaphragmatic breathing Yes No
 - "Belly Breathing" Yes No
 - Controlled coughing Yes No
- Have you discussed any of the following subjects with your doctor, nurse or another health professional?
 - Immunizations (pneumonia, flu, tetanus) Yes No
 - Nutrition issues (reducing carb intake) Yes No
 - Medication management (why/how to take medication) Yes No
 - Stress management Yes No
- Are you physically active or do you exercise on a regular basis? Yes No

Please turn OVER to complete the survey.

Appendix 1 (cont'd)

7. What medications are you taking, both prescription and over-the-counter?

Drug	Dose	Frequency
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

8. What type of tracking system do you use to remember to take your medications?

- Medication logbook
- Pillbox
- Other (please explain): _____
- Keep medications by toothbrush
- None

9. Other information you would like us to know about your COPD:



Please return this questionnaire in the enclosed self-addressed stamped envelope. Thank you for your interest and participation in this program.

Appendix 2

COPD Survey

Great Expectations[®]
FOR HEALTH

Name: _____ *
Phone #: (____) _____ *

BlueChoice[®] HealthPlan ID #: _____ *
E-mail address: _____ **

Return this short survey POSTMARKED BY July 12, 2010
and you will be entered into a drawing for a \$50 [redacted] gift card!

*Name, ID and phone number are optional, but required if you would like to be entered into a drawing.
** Disclosing your e-mail address is optional. By providing your e-mail address on this form, you are authorizing BlueChoice HealthPlan to send you information related to healthy and disease management programs to you via e-mail.

Program Evaluation

To offer you the best program possible, we would like your feedback on how we are doing. Please answer the following questions and return this form in the enclosed postage-paid envelope. Thank you for your time.

How do you rate the following?

- 1. The overall COPD program:
- 2. The educational materials:
- 3. The semiannual newsletters:

- | | | | | |
|------------------------------------|-------------------------------|-------------------------------------|-------------------------------|---------------------------------|
| <input type="checkbox"/> Excellent | <input type="checkbox"/> Good | <input type="checkbox"/> Acceptable | <input type="checkbox"/> Poor | <input type="checkbox"/> Unsure |
| <input type="checkbox"/> Excellent | <input type="checkbox"/> Good | <input type="checkbox"/> Acceptable | <input type="checkbox"/> Poor | <input type="checkbox"/> Unsure |
| <input type="checkbox"/> Excellent | <input type="checkbox"/> Good | <input type="checkbox"/> Acceptable | <input type="checkbox"/> Poor | <input type="checkbox"/> Unsure |

If you have spoken with one of our respiratory specialists, rate the following. If not, skip to #7.

- 4. Educational content of calls:
- 5. Health specialist's knowledge:
- 6. Overall usefulness of calls:

- | | | | | |
|------------------------------------|-------------------------------|-------------------------------------|-------------------------------|---------------------------------|
| <input type="checkbox"/> Excellent | <input type="checkbox"/> Good | <input type="checkbox"/> Acceptable | <input type="checkbox"/> Poor | <input type="checkbox"/> Unsure |
| <input type="checkbox"/> Excellent | <input type="checkbox"/> Good | <input type="checkbox"/> Acceptable | <input type="checkbox"/> Poor | <input type="checkbox"/> Unsure |
| <input type="checkbox"/> Excellent | <input type="checkbox"/> Good | <input type="checkbox"/> Acceptable | <input type="checkbox"/> Poor | <input type="checkbox"/> Unsure |

Please indicate your level of agreement with the following statements about our COPD program.

- 7. The program has helped me learn to manage my COPD better.
 Strongly Agree Agree No Opinion Disagree Strongly Disagree
- 8. The program has helped me improve my quality of life.
 Strongly Agree Agree No Opinion Disagree Strongly Disagree
- 9. I have lost less time at work and/or other obligations as a result of participating in the COPD program.
 Strongly Agree Agree No Opinion Disagree Strongly Disagree
- 10. In the past year, has your physician performed a breathing test (Spirometry) on you?
 Yes No I do not recall

11. BlueChoice HealthPlan appreciates any additional comments or suggestions you may have regarding the Great Expectations COPD program. _____

Appendix 3

Colorectal Cancer Screening Campaign Example Scripting

Standard Messaging

OK. We encourage you to talk with your doctor about which colon cancer screening test is best for you, as there are a few types to choose from. According to the American Cancer Society, colon cancer is the 3rd most common cancer in men and women over the age of 50 in the United States.

Custom Messaging

- **Caucasian:** And, despite colon cancer affecting so many people, only about 50% are getting screened for it.
- **Hispanic/Latino:** And if you happen to be Hispanic or Latino, you're part of a group that is least likely to have colon cancer screenings, compared with other ethnic groups.
- **African-American:** And if you happen to be African American, you're part of a group that only gets colon cancer screenings about 40% of the time.
- **Asian:** And if you happen to be Asian-American, you're part of a group that only gets colon cancer screenings about 34% of the time.

Standard Messaging

As a result, when cancer is found, it is often diagnosed at a later stage, which means it is much more difficult to treat. But, through early screening, small polyps can be removed easily. That's why regular testing is really important starting at age 50.

Appendix 4

Helpful for when your wife yells,
“What is wrong with you?”

 Secure Online Medical Records



GroupHealth
Well beyond medicine™

ghc.org

© 2010 Group Health Cooperative. Available through our 26 medical centers.

Appendix 4 (cont'd)

**Way more convenient than
waiting for the cable company.**

+ Online Appointment Scheduling

ghc.org

© 2010 Group Health Cooperative. Available through our 26 medical centers.



GroupHealth
Well beyond medicine

Appendix 4 (cont'd)

**Has anyone seen the doctor's
schedule? Oh right, you have.**

 **Online Appointment Scheduling**



GroupHealth
Well beyond medicine™

ghc.org

© 2010 Group Health Cooperative. Available through our 26 medical centers.

Appendix 5



July 19, 2011

«First_name» «Last_name»
 «Address1» «Address2»
 «City» «State» «Zip»

Dear «First_name»,

Welcome! As a valued ODS member you have been included in the **ODS Care Program**.
 This program offers you:

- Access to one-on-one health coaching
- Online health resources
- Reminders for needed screenings and routine care

Through one-on-one health coaching you will get support in areas of life that matter to you. Over the phone or through email your coach will help you better understand your personal health needs.

Topics may include:

- | | | | |
|--------------|----------------|----------------------|--------------------|
| Heart health | Staying active | Spine & joint health | Coping with stress |
| Diabetes | Women's health | Respiratory health | Healthy weight |

As an ODS member health coaching is yours at **no cost**. This program is voluntary. You decide the number of sessions. If you wish to stop participating you may contact us at any time to do so.

Ready to take action? Just fill out the survey on the back of this letter and return it in the envelope provided. Please include your day-time phone number or email address so we can get a hold of you. You can contact us today at:

- Portland/metro: [Redacted]
- Toll-free: [Redacted]
- TTY number (for the hearing and speech-impaired): [Redacted]
- Email: [Redacted]

Sincerely,

Your health coaching team

For more information about the **ODS Care Program** including how you have become eligible, log on to your member website **myODS** at www.odscompanies.com and view Health Coaching FAQs under the myHealth tab.

Oregon Dental Service
 Dental Insurance
 —
ODS Health Plan, Inc.
 Medical Insurance
 —
The ODS Companies
 ODS Tower
 P.O. Box 40384
 Portland, OR 97240.0384
 Phone: 503.228.6554
www.odscompanies.com

Appendix 5 (cont'd)

Please provide your day-time phone number or email address so we can contact you.

Daytime Phone: (____) _____ - _____

Email: _____

The questions that follow will take you just a few minutes to complete. Your answers to this brief survey will help your health coach support you as you make changes to improve your health.

Below are statements that people sometimes make when they talk about their health. Please indicate how much you agree or disagree with each statement as it applies to you personally by circling your answer. Your answers should be what is true for you and not just what you think the doctor wants you to say.

If the statement does not apply to you, mark N/A.

	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
1. When all is said and done, I am the person who is responsible for taking care of my health.	<input type="radio"/>				
2. Taking an active role in my own health care is the most important thing that affects my health.	<input type="radio"/>				
3. I know what each of my prescribed medications do.	<input type="radio"/>				
4. I am confident that I can tell whether I need to go to the doctor or whether I can take care of a health problem myself.	<input type="radio"/>				
5. I am confident that I can tell a doctor concerns I have even when he or she does not ask.	<input type="radio"/>				
6. I am confident that I can follow through on medical treatments I may need to do at home.	<input type="radio"/>				
7. I have been able to maintain (keep up with) lifestyle changes, like eating right or exercising.	<input type="radio"/>				
8. I know how to prevent problems with my health.	<input type="radio"/>				
9. I am confident I can figure out solutions when new problems arise with my health.	<input type="radio"/>				
10. I am confident that I can maintain lifestyle changes, like eating right and exercising, even during times of stress.	<input type="radio"/>				

Insignia Health. "Patient Activation Measure; Copyright © 2003-2005, University of Oregon. All Rights reserved."

Thank you for helping us to get to know you better. We look forward to working with you. An ODS health coach will contact you soon. To view eligibility information for the ODS Care Programs visit us online at www.odskompanies.com

<<Program>> «(TrD)» <<mem.mail_code>>

Appendix 6

Health Report

myHealthStyle

Congratulations PAM!
You're taking a key step.

You've got the basics of good health down, but you worry that you should be doing more. Although it's not always easy to make your health a priority, a few small steps can take you a long way.

You're beginning to make your health a priority—and that isn't easy when life gets busy and you feel overwhelmed. Keep in mind that nurturing better health is a bit like growing a garden. It takes a little time and care, but the rewards are worth the effort—even though you won't see the fruits of your labor overnight.

Remember to make changes one small step at a time. We'll be here to help you take those first steps, and to continue moving forward at your own pace.

What are you interested in doing?

You can start with one of these goals for better living:

- ✓ Avoid eating while watching TV to control your portions
- ✓ Walk around the block after you eat lunch
- ✓ Substitute fruits for your afternoon snack

Based on your Health Style, we've selected the following tips and topics just for you:



Medications May Cause Side Effects»



How Much is Enough?»



Smile Brighter with Good Self Care»



Incredible Benefits of Being Active»

Not interested in these topics?

[VIEW OTHER HEALTH TOPICS](#)

or access your Home page now

Appendix 7

Notification of Pregnancy Form

[Health Plan Logo]



The earliest possible completion of this form allows the Start Smart for your Baby® program to best use our resources and services to help you and your patient achieve a healthy pregnancy outcome. **Please complete clearly in black ink and fax to: XXX-XXX-XXXX.**

Member Info

First Name _____ Last Name _____ Member ID# _____
 Mailing Address _____ State _____ Zip _____
 City _____
 Email Address _____ Policy Holder _____
 ID# _____ Delivery Hospital _____
 Home Phone # _____
 Cell Phone # _____
 Other insurance _____ EDC _____
 Date of 1st visit _____ Planning to breastfeed? Yes No
 HIV tested? Yes No Refused? Yes No
 Gravida _____ Para _____
 SAB _____ EAB _____
 Mother enrolled in WIC? Yes No
 Pediatrician chosen? Yes No Name _____

Pregnancy risk assessment (mark all that apply)

- Previous Preterm Delivery (<37 weeks)
- Previous second trimester loss (14-24 weeks) or Stillborn/week _____
- Previous Cesarean Section
- Preexisting Medical Condition**
 - Diabetes
 - Asthma
 - Hypertension
 - Sickle cell
- Current pregnancy**
 - Gestational diabetes
 - Preterm labor or incompetent cervix
 - Oligohydramnios
 - Placenta previa
 - Sexually transmitted disease
 - IUGR
 - Preeclampsia
 - Multiple gestation
- Personal history of clotting disorder or family history of thrombotic event
- Mental illness
- Domestic Violence (history or current)
- Smoker
- Alcohol abuse
- Drug abuse
- 35 years or older
- Other significant risk factor _____
- No known risk factors

Provider Info

Name _____
 Provider T.I.N. or N.P.I.# _____
 Phone # _____
 Fax # _____
 Mailing Address _____ State _____ Zip _____
 City _____

For any questions regarding this form or the Start Smart program please call XXX-XXX-XXXX (TDD/TTY XXX-XXX-XXXX).

Please complete if you would like your patient to receive a free three (3) month's supply of prenatal vitamins. They will be shipped to (please choose) Provider Office Member Office
 [Please make sure accurate mailing address is on this form.]

[Health Plan Logo]



Name _____ Date _____
 Date of Birth _____

**Prenatal Plus
 Disp: #100
 No refills**

Physician signature / Dispense as written

DEA# _____

Prescription is void if more than one (1) prescription is written per blank.

For Health Plan Use Only

Completed by _____

Date _____



10%
TOTAL RECOVERED FIBER

NPS00267 © 2011 by NCQA Printed in USA/September 2011

 **Worldwide Biopharmaceutical Businesses**

[Patient Engagement: On Metrics and Meaning](#)

By Leslie Kernisan, MD

What is patient engagement?

Everyone agrees that it's a good thing, and that we healthcare providers should be fostering it.

How to do so, however, depends on just what you believe patient engagement means.

As [Dan Munro recently pointed out](#), the term “patient engagement” is a hot buzz phrase, and – in the best tradition of such phrases – it's amorphous enough and appealing enough to mean...just about anything.

Provided that it that makes us feel good about healthcare, of course. Better yet, provided that it casts our favorite healthcare approaches in a favorable light. (Rob Lamberts nicely summarizes some angles of the term [here](#).)

I actually rather liked Munro's post, titled “[Patient engagement: Blockbuster Drug or Snake Oil?](#)” until he got to this part: “We now have some very real metrics around what constitutes real patient engagement and Leonard highlighted two impressive examples.” He goes on to point to two studies of care coordination for chronic illness — one at Kaiser and the other at the VA — and summarizes some key improvements in outcomes.

At Kaiser, they included things like [decreased mortality rates and fewer emergencies](#), as well as improved cholesterol screenings and more people meeting cholesterol goals. With the [VA's Telehealth program](#), hospital days were reduced and patient satisfaction was 86%. (BTW, I had a VA primary care clinic from 2006-2010, and several of my patients were in Telehealth.)

These are indeed nice results. Still, somehow they didn't impress me as constituting “real patient engagement.” They seemed more like “real population health management, facilitated by teams, care coordination, communication infrastructure, and organized protocols.”

Shouldn't real patient engagement mean more than this?

Defining patient engagement

Here's my current take:

Supporting patient engagement means fostering a fruitful collaboration in which patients and clinicians work together to help the patient progress towards mutually agreed-upon health goals.

Quite a mouthful, eh? Ok, if I had to pick out the most important parts, I'd say they are

- **Collaboration**, which means working together effectively.

- **Agreed-upon health goals**, which means each side understands what the other hopes to get out of their work together.

In other words, to truly foster patient engagement, it's not enough to just work together more closely on achieving a given health outcome. It's also important to work together on deciding which outcomes to pursue, why to pursue them, and how to pursue them. In doing so, we engage patients in a meaningful care partnership that respects their priorities, preferences, perspective, and situation.

Communication with patients is, of course, essential to all of this. This is why any innovation that improves a patient's ability to access and communicate with healthcare providers is proudly labeled as "patient engagement."

Also, communication technologies do facilitate data exchange, and can help patients implement a plan. So for instance, the VA's Telehealth program made it easy for veterans to regularly report home measurements such as weight or blood pressure. And these readings were reviewed by trained nurses, who would call my patients if data entry stopped, or if a measurement triggered some kind of alert.

All good stuff. But not enough, in my mind, unless we've also made some efforts to support communications such that the patients understand – and get to weigh in on — how our clinical efforts are serving their health needs.

Otherwise, these improved communication technologies just become a better way for us to tell patients what to do, and help them do it. I suppose this does improve patient engagement if we define it as more contacts with the healthcare system, or as decreased utilization which will surely make the payers happy.

But I would like to see us strive for more of a joint problem-solving partnership with patients. Patients are, after all, the experts on how their health problems affect their lives. And it is in tapping, and nurturing, that expertise that we'll be most likely to improve their health in ways that are most meaningful to them.

This, of course, becomes especially important in geriatrics and for those patients with multiple chronic illnesses. Their medical complexity mandates that care be individualized, and that they actively participate in this tailoring of their care. ([Dr. Larry Weed, as I noted in my commentary on "Medicine in Denial" really gets this](#); his book is good reading if you are serious about getting healthcare to better serve patients.)

The trouble is, historically we've not done a good job in medicine of involving patients in setting goals; usually clinicians have assumed they know what's best for patients. Clinicians have also often not had the time — or sometimes the interest — to understand what is feasible or desirable to the patient.

The advantage to this approach is that it's fast; negotiating a mutual understanding takes time, after all. High blood pressure? Here's a prescription for HCTZ. And maybe a handout on low-salt diet. Next!

For certain patients, this approach can actually lead to decent medical outcomes. This is assuming that the clinician's directive is supported by the evidence, is feasible for the patient to implement, and is in fact a suitable match for the patient's goals and medical situation. (Reducing blood pressure will probably have more benefits – and be less burdensome – in the average 50 year old than in a frail and declining 93 year old.)

But what about when high blood pressure treatment – or reaching cholesterol goals, for that matter – isn't what's most important to the patient? Sometimes other issues, such as pain or incontinence or memory problems or anxiety about prognosis are what's most important to a patient.

Shouldn't "real patient engagement" address what's really important to the patient?

Metrics of engagement

Back to the examples of patient engagement cited above. What are the "right metrics around what constitutes real patient engagement"?

Obviously, it will be difficult to agree on metrics if we don't first agree on the definition.

If you buy into my definition, then the relevant metrics would need to measure things like the patient's understanding how a given intervention was going to help him or her with her health goals, and how well the intervention fit in with the patient's health needs overall. It would also be nice to measure things like increased feelings of self-efficacy in managing one's health, or confidence that the clinical team is being helpful.

But from the description of the Kaiser and VA programs mentioned above, we really don't know how the patients felt, and whether being in these programs helped them feel like active and empowered participants in their care. (Or helped them feel that their clinical teams understood their health needs and were collaborating with them.)

In truth, I suspect that my definition of patient engagement will probably not be widely adopted by those with clout: the big health providers, the payors, and the pundits. From the perspective of the providers, my guess is that patient engagement will mean things like:

- How often does the patient contact/connect with us, especially when we want them to?
- How often does the patient behave as we would like them to?
- How much does the patient like us, and bring us their business, and – most importantly – do they give us good ratings on surveys and talk us up on social media?

(Check out this [Patient Engagement Index that ranks Florida hospitals](#).)

For the payors, I expect patient engagement will mean care coordination programs and other innovations that result in lower utilization. Money, after all, does make their world go around.

As for the pundits...likely will depend on who is writing for whom. For example, here's a [recent sample](#) of what we're likely to keep reading: "[The iPad] allows medical professionals to work on a device of their choice taking patient engagement to the next level." (Hm. Somehow doctors having mobile connectivity is going to get patients more involved in healthcare.)

In other words, engaging patients – in the strict sense of more contacts and encounters with patients — doesn't automatically mean that the patient's needs and experience are central.

Sounds like most of medicine. Still, these care coordination programs and increased opportunities for patients to communicate strike me as progress in the right direction.

I'm just not going to call it "real patient engagement" unless I think it helps clinicians collaborate with patients to meet their health goals.

Summing it up

If we are to foster "real patient engagement," then we will need to be more specific about what it is, so that we can agree on what kinds of metrics or outcomes demonstrate it.

To me, supporting patient engagement means fostering an effective collaboration in which patients and clinicians work together to help the patient progress towards mutually agreed-upon health goals.

This collaboration should work towards medical outcomes that the patient understands and has had an opportunity to help determine. This helps ensure that the medical care truly serves the patient's needs, priorities, and preferences.

Otherwise, to leverage improved communication and access in order to get patients to reach the health outcomes prioritized by clinicians basically means we've become more effective at getting patients to do what we want. This might result in improved health outcomes for individuals and populations, but falls short of what we could and should aspire to: helping patients meet **their** health goals.

If we want patient engagement to mean collaboration on mutually-agreed upon health goals, we will need to find effective ways to measure the quality of this collaborative process. Documenting reduced mortality and morbidity is not enough.

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<http://thehealthcareblog.com/blog/2013/09/12/patient-engagement-on-metrics-and-meaning/>

Recalibrate the System by Working Down the Backlog

Improving Primary Care Access

Backlog consists of appointments on the future schedule that have been put off due to lack of space on the schedule to do this work sooner; working down the backlog recalibrates the system to improve access. This backlog of appointments clogs clinic schedules, taking up slots that could be used for patients requesting appointments with their providers. The traditional office practice scheduling philosophy has been to push out appointments into the future to protect today's schedule, creating backlog. Improved access calls for pulling today's requests into today in order to protect the future, eliminating backlog. A practice cannot successfully improve access without working down the backlog and recalibrating their system of access to care.

It is sometimes useful to think of backlog as a reservoir of unmet demand. Water flows into the reservoir (patient demand), and water goes out of the reservoir (supply/services provided). If water comes in at the same rate as it goes out, then the level of water in the reservoir remains constant. If somehow the reservoir could be drained, then the water would flow smoothly with no need for a reservoir. Working down the backlog is like draining the clinic's reservoir of built-up demand. Once the reservoir of appointments has been reduced, there will be no delay in access as long as demand and supply are in balance.

Not all appointments on the future schedule are considered backlog:

- Provider discretionary return appointments for more acute problems
- Appointments made by patient choice (patient calls in today, but wants an appointment in the future)
- Provider generated interval follow-ups for planned care to manage chronic conditions and patients, for preventive tests such as yearly physicals, and for age-specific appointments

Backlog consists of appointments that are deflected into the future for patients who could have been seen today, or requested to be seen today. Backlog is work the practice pushes into the future from today or the past. In order to be successful in improving access, clinics need to reduce and eliminate backlog. To reduce and eliminate backlog, first measure it, and then create and use a deliberate backlog reduction plan.

Changes for Improvement

Create and Use a Backlog Reduction Plan

It is imperative to create a deliberate and actionable plan for reducing backlog. The backlog reduction plan should include the following steps:

1. **Gain immediate supply** the easy way. Physicians and the care team can review the schedule of patients with future appointments to see if there are ways to meet their needs other than with an office visit. Ask the following questions about patients with future appointments:
 - There's a patient on my schedule next month that I'm seeing today. Can I take care of that patient's needs today so that next month's appointment is not needed? When I see

them, can I safely and effectively extend their return interval? If yes, then I can schedule a return appointment (if necessary) in three to four months.

- Can this patient's needs be met with a phone call, or by handling the care in a different way such as by compressing multiple follow-ups into one visit? Can this patient be seen by someone else on the care team?
- Does this patient really need a scheduled appointment? For example, a patient who only needs a medicine refill, had a recent office visit, is in the hospital, or who sees another provider as their primary physician might have his or her needs met in other ways.

2. **Temporarily add appointment slots and try to do increasingly more of today's work today.** Preventing new backlog by not putting today's work off into the future involves reducing future demand and gaining supply in the system. Clinics can prevent future backlog by temporarily adding appointment slots to the schedule (e.g., by adding weekend or evening appointments, or extra appointments during the day). Additional staff members are sometimes needed on a temporary basis to reduce the backlog and prevent future backlog from being created. Gaining supply allows the clinic to do more of today's work today, thereby reducing the amount of work that is being put off into the future and preventing new backlog from being created.
3. **Set a start date to begin reducing the backlog and determine an end date when backlog reduction will be completed.** By determining these two important dates, you set the pace for backlog reduction. Be careful to gain and add enough supply that backlog reduction is not a prolonged process. It is also important that the pace for backlog reduction is not too rapid to avoid the risk of burning out providers and staff.
4. **Before you start, confer with senior leaders to be clear about organizational support** for various options for working down the backlog. For example, will the organization pay overtime? Will there be additional compensation for providers working extra sessions/hours? Are locum tenens (temporary help providers) an option? Can part-time providers add hours? Explore all the options with your leaders before you engage the team members.

Measure the Backlog

The backlog that needs to be reduced consists of patients waiting to be scheduled or patients whose appointments have been put off into the future. Often in primary care, the backlog consists of patients waiting for physicals, new patient visits, or follow-ups. In specialty care, the backlog includes patients waiting for an initial consult with the specialist, or awaiting a timely return visit. There are two important ways to measure the extent of the backlog.

- **The third next available appointment** is the average length of time in days between the day a patient makes a request for an appointment with a physician and the third next available appointment for that appointment — whether it is a new patient physical, routine exam, or return visit exam — without using “frozen” or held appointment slots. The “third next available” appointment is used rather than the “next available” appointment since it is a more sensitive reflection of true appointment availability. For example, an appointment may be open at the time of a request because of a cancellation or other unexpected event. Using the third next available appointment eliminates these chance occurrences from the measure of availability. This helps determine where availability on the schedule begins.

- **Count the number of backlog appointments:** Many groups have counted the number of backlog appointments (i.e., work the practice pushes into the future) by reviewing the future schedules and actually counting the number of appointments that represent backlog. Add the number of patients on a wait list to that count to get the total number of backlog appointments.

<http://www.ihl.org/resources/Pages/Changes/RecalibratetheSystembyWorkingDowntheBacklog.aspx>

Measure and Understand Supply and Demand

Improving Primary Care Access

Understanding the patterns of both demand and supply on a weekly, monthly, or seasonal basis allows for focused efforts to shape demand to match supply, and/or increase (or decrease) supply during periods of high (or low) demand. Improving access is all about getting supply and demand in equilibrium, meaning there is no backlog of appointments and no delay between when the demand is initiated and when the service is delivered.

The gap between supply and demand not only contributes to a delay in meeting patients' needs, but it can also be expensive and generate waste in the system. The experience of many health care organizations demonstrates that demand is not really insatiable, but actually predictable. In fact, the demand for any kind of service — appointment, advice, or message to a provider — can be predicted accurately based on the population, the scope of the provider practice and, over time, the particular practice style of each provider.

Periods of high or low demand can be anticipated, based on an analysis of demand data collected on all requests coming into the system. An improved access system uses these predictions as the framework to match its supply to the needs of a population of patients for any specific service. Therefore, measure supply, measure demand, and then compare the two.

Changes for Improvement

Measure Supply for All Providers and Staff

Supply refers to the clinical resources (members of the care team) available to a clinic. When the total resources are managed well, a clinic creates openness in its schedule to care for patients. Patients experience this openness primarily as the availability of clinic appointments). Start by [measuring provider supply](#) for appointments, which is the total hours of clinician time devoted to appointments on a daily, weekly, monthly, and yearly basis. Then measure the supply for other non-appointment processes, such as refills, messages, and lab review.

Measure Demand for All Services

First [measure demand](#) for appointments and then for all other care processes. The only way to really know your true demand is to measure it.

Demand for appointments can be divided into external and internal demand. External demand comes in the form of new patients to primary care, and referrals (consults) and physician-to-physician phone calls to specialty care. Internal demand to both primary and specialty care comes from provider- and patient-driven return appointments and may also include phone calls, faxes, emails, walk-ins, and return visits generated from today's appointment.

True demand is the total number of requests for appointments received on any given day from both internal and external sources.

Compare Supply and Demand

After measuring the demand and supply for the practice, compare the two. If demand is greater than supply, use ideas in the change concepts [Decrease Demand for Appointments](#) and [Optimize the Care Team](#) to bring supply and demand into better balance. If the supply is greater than or equal to the demand, then [Create and Use a Backlog Reduction Plan](#).

<http://www.ihl.org/resources/Pages/Changes/MeasureandUnderstandSupplyandDemand.aspx>

Optimize the Care Team

Improving Primary Care Access

Optimizing the care team is critical to maximizing the supply of the clinic and improving the daily flow of work. The specific mix of staff (number of physicians, nurses, assistants, technicians, clerks, etc.) will vary from clinic to clinic and determines the extent and type of work that can be driven away from the physician (the constraint). The care team composition of each clinic emerges from a discussion of how the clinic (and ultimately the facility) decides to balance its supply and demand. The clinic has to understand the types of services it provides, and then decide who should be involved in the work and how the work should be divided among the care team. This approach begins with demand and adjusts supply to meet the demand (within the limits of clinic resources). This is different from an approach that sets an arbitrary care team mix and then tries to fit the demand into the supply.

Related Measures

- [Office Visit Cycle Time](#)

Changes for Improvement

Cross-Train Staff

Cross-training enables staff to assume different duties as needed. The ability of a clinic to respond to expected or unexpected surges in demand or unexpected, yet predictable events depends to a large extent on the flexibility of the staff to adjust their responsibilities during these periods.

Cross-training does not negate the concept of each care team member working to his or her highest level. It provides another option to smooth the flow and support the providers.

To develop a flexible and effective care team, provide some degree of cross-training so that the team as a whole can respond quickly to minute-to-minute variations in demand and supply, or to unexpected events. The following are examples of useful cross-training for care teams.

- A float team that is trained to cover responsibilities throughout the clinic when needed.
- Scheduling staff that can clean instruments and set up rooms for procedures.
- Nursing staff that can do scheduling, if necessary.
- Scheduling or reception staff that can obtain patient information and assign patients to exam rooms.
- Check-in and check-out staff that can fill in for each other.

Reduce Variation in Provider Styles

Variation in how office visits are conducted by different providers (e.g., use of other providers and staff members, documenting notes, etc.) can add complexity to the flow of patients and staff. An open discussion about how the "work gets done" can help identify opportunities for standardized approaches that promote efficiency across the larger care team.

Use Team Communication Methods

In order to optimize communication, care teams should plan to meet regularly through huddles, team meetings, and staff meetings (see [Use Regular Huddles and Staff Meetings to Plan Production and Improve Team Communication](#)). These change ideas (i.e., using huddles and meetings) apply logically to several of the ten ideas for improving access. For example, a huddle can be used by a team working to improve their communication, or by a team that needs to better manage its supply and demand. The creation of communication short-cuts and flexible cues and sequencing can also optimize team communication.

Communication short-cuts are visual displays of information that provide effective ways to make adjustments in the schedule, coordinate emerging patient needs, or reassign staff responsibilities. For example, use a large board in the clinic workroom to note daily patient appointments (including special needs) by provider along with nursing staff assignments. This provides staff with the "big picture" of what's going on in the clinic each day so that the care team can help where needed.

Flexible cues and sequencing are a type of communication that keep a practice flowing smoothly without the need for verbal or face-to-face communication. Here are some examples:

- A chart in the blue basket means that the patient has arrived and is ready for rooming, and a chart in the red basket means that the patient has gone for testing.
- Flags on the room indicate which member of the care team is in the room, or if the patient is ready for the next stage of the visit.
- Paper tasks that will take longer than one minute to complete are placed in an in-basket for the physician, while tasks that are quick (and will contribute to continuous flow) are placed in a prearranged "hot-spot" for immediate attention

Ensure That Clinicians and Staff Work to Their Highest Level of Experience, Skills, and Licensure

A key concept to remember when assigning clinic responsibilities to optimize the care team is to have all staff members working to the highest level of their expertise and ability. Work must be matched to each staff member's licensure, experience and abilities, including physicians, mid-level providers, nurses, and other staff members. Staff satisfaction also tends to increase when they feel comfortable with their assigned roles and responsibilities.

Maximizing staff roles requires a clear understanding of the needs of the clinic and patient demand so that the work (demand) and the care team member (supply) can be matched appropriately. It also requires the creation and use of clear job descriptions with specific competencies outlined, and possibly some additional training or refresher courses. It is important to research the scope of licensing with the state regulatory agencies to be sure that staff are not inadvertently asked to work beyond the scope of their license.

Establish Standard Protocols to Move Work Away from the Provider

One way to optimize staff abilities is to establish protocols for conditions and processes that can be clearly delineated. The following are some examples:

- Develop a standard process for flu and pneumococcal vaccinations so that a nurse or other appropriate provider can administer shots according to established guidelines.

- Develop nurse-run or pharmacist-run hypertension, allergy, or INR clinics based on protocols.
- Ask physicians to sign off on standard advice protocols for home care.
- Write protocols for ordering an initial lab or radiology for certain symptoms (such as urinary tract infection, strep throat, or suspected broken bone) at the office visit, or to replace a physician visit with a nurse visit.

Limit Interruptions

Interruptions create unnecessary variation in the flow of tasks, disrupt the coordination of work among staff, and contribute to patients waits for services or treatment. For example, when a provider is interrupted during a patient visit for a phone call, or when patient information or exam room supplies and equipment are missing, all can lead to delays. To decrease these common types of interruptions, have physicians track the number of times and reasons why they leave the exam room for missing items to identify what equipment is needed in the room at all times. Clinics can also establish telephone call policies to mitigate interruptions by phone.

Manage Contracted Supply

Some practices discover a gap between the expected amount of time providers have on their schedules for direct patient care and the time stipulated in contracts. Correcting this mismatch can often result in increased supply.

Primary care practices often work with external supports for their patients, such as home health agencies, community support agencies, and care management companies. Lack of clarity around roles and responsibilities results in time wasted.

<http://www.ihl.org/resources/Pages/Changes/OptimizetheCareTeam.aspx>

Manage Panel Size and Scope of the Practice

Improving Primary Care Access

Managing panel size and the scope of the practice allows a team to balance supply and demand and ensures that they can do today's work today. Panel size is the number of unique patients for whom a care team is responsible; it is a measure of the equity of the work. Panel size can be measured by calculating the number of unique patients seen by a specific provider within a specific time frame — usually the past eighteen months. An appropriate panel size is an outcome of an optimal access system, not a goal or end in itself. The goal is good panel management: clinicians and their care teams being responsible to, and caring for, a designated population of patients.

From the physician's perspective, having an equitable and appropriate panel size ensures that he or she will be able to offer good care in a timely way to a reasonable number of patients. Panel size drives demand. An agreed-upon panel size range for each primary care provider ensures the physician who is working to improve his or her access that the demand for services will not exceed the supply.

Another way to evaluate panel size is to use "average visits per week" as a proxy of the clinic's work. Determine the number of visits per week that can be supported based on current supply, and use this as a proxy for the total of visit and non-visit work. As the clinic adopts a model of care based on continuous healing relationships, non-visit work will increase and clinics will need to adjust panel size targets.

Related Measures

- [Individual Panel Size](#)
- [Patient Continuity](#)

Changes for Improvement

Limit the Scope of the Practice

Practices can shape their demand by limiting the types of services and procedures they are prepared to offer patients. For example, a primary care practice with greater demand than supply may decide to send patients needing blood draws or other simple diagnostic tests (that had traditionally been done in the office) to a lab or phlebotomy service. Physicians (in partnership with specialists) may also begin referring patients for simple procedures, such as removing skin lesions, to a dermatologist rather than provide that level of treatment themselves.

Improve Continuity for Appointments and All Clinical Work

One of the most powerful change ideas to reduce demand is to promote continuity with the primary care provider (PCP) and the care team at all times. When a patient is deflected to Urgent Care, or even to another provider on the team, they may often be instructed to check back with their PCP, or choose to do so on their own, thus creating a second demand on the system. The PCP is in the best position to "[max-pack](#)" at that visit, possibly reducing future demand even more.

Practices can promote continuity by first committing to it. Once providers, nurses, and appointment staff all view continuity with the PCP as a priority, then scheduling and nursing staff can script the

appointment interaction. The only situations in which a patient should be deflected to an alternate provider or to Urgent Care is if the PCP is absent, or if the patient prefers this option because he or she cannot wait. Sometimes it is helpful for a mid-level provider to carry a smaller panel of patients and be the first provider assigned to see a patient for a provider who is absent.

A good example of how practices have improved continuity is to route all patient-related work to the PCP/care team. To do this, consider all members of the care team when planning a patient visit (e.g., nurses can be responsible for flu shots or physician assistants for some post-procedure follow-up). This helps to reduce demand for appointments with the physician. Be careful to schedule the patient for the appropriate level of care the first time. For example, if a patient's needs require him or her to see the physician, schedule the appointment with the physician instead of the physician assistant (PA) to avoid creating demand for two appointments. Conversely, if the level of care indicated dictates that a nurse or PA can meet the patient's needs, it is not necessary to schedule an appointment with the physician.

Once clinical teams have fixed panels of patients, the practice should devise a streamlined process for connecting incoming work with that team. Practices using paper charts might label their charts with colored tape as a signal to reduce time spent finding the answer to the question, "Who gets this work?"

Improve Patient Self-Management

Clinics that promote patient self-management achieve better overall management of the patient's condition. [Self-management](#) for chronic diseases also reduces unnecessary demand for visits.

Establish Input Equity

Panel size is based on clinical full-time equivalents (FTE) or clinical supply (availability for appointments), and a full-time provider will have a larger panel size than a part-time provider. When two full-time providers have very disparate panel sizes (and thus very different levels of demand), efforts should be made to make the panel size equitable for each provider. An equitable panel size can be achieved by either actively redistributing patients from a larger panel to a smaller one, or by temporarily closing the larger panel to allow new patients to fill the smaller panel, thereby decreasing the larger panel by attrition.

At some point, each clinical team will reach its limit of supply and will need to reduce the patients entering the practice to balance those leaving the practice. New patients that cannot be absorbed by a team with a full practice should be deflected to teams capable of accommodating the demand. At some point the entire practice may reach its limit. At this point the practice must come together to discuss whether to deflect new patients to other practices (closing temporarily or permanently to new patients) or to grow the practice by adding more clinical teams.

Create and Implement Service Agreements Between Primary Care and Specialty Care, and with Diagnostic Entities

Service agreements between primary care physicians and specialists define the list of conditions that should be taken care of in primary care, and the process for making a prompt referral to specialty care if needed. Service agreements also define the appropriate work-up needed so that the patient arrives at their specialty care appointment with all necessary tests completed and ready for review. Agreements also help to stipulate the expectations for the specialist so that he or she knows what the patient has

been told about the referral, what the primary care provider suspects about the patient's condition, and when the primary care provider expects to have their patient returned to their care (possibly after the work-up and diagnosis, or after the patient is stabilized on treatment).

Service agreements benefit both primary care physicians and specialists. Primary care physicians are ensured that their patients will be treated promptly by a specialist — either by appointment (ideally within 24 hours, typically within a week) or by an immediate phone consult if more appropriate. Specialists are assured that they will see only those patients who require their services, and those patients will be ready for their review, diagnosis and treatment plan. Service agreements are not guidelines or referral criteria unilaterally disseminated from specialists to primary care providers; rather, they are built-in partnerships between primary care and specialty care.

Service agreements between primary and specialty care should also include an understanding of when a patient is transferred back to the primary care physician following a specialty referral.

Service agreements between clinical areas and diagnostic services are also very important to ensure that the patient's journey is fast and smooth as they move from primary care to a diagnostic study, and then either back to primary care or on to a specialty referral. Because diagnostics are key in the patient's care journey, it is essential to have agreements established to expedite the process.

<http://www.ihl.org/resources/Pages/Changes/ManagePanelSizeandScopeofthePractice.aspx>

Innovation Series 2003



Optimizing Patient Flow

Moving Patients Smoothly Through Acute Care Settings

We have developed IHI's Innovation Series white papers to further our mission of improving the quality and value of health care. The ideas and findings in these white papers represent innovative work by organizations affiliated with IHI. Our white papers are designed to share with readers the problems IHI is working to address; the ideas, changes, and methods we are developing and testing to help organizations make breakthrough improvements; and early results where they exist.

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Innovation Series 2003



Optimizing Patient Flow

Moving Patients Smoothly Through Acute Care Settings

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Executive Summary

Because waits, delays, and cancellations are so common in health care, patients and providers assume that waiting is simply part of the care process. But recent work on assessing the reasons for delays suggests otherwise.

Optimizing Patient Flow is part of a series of innovative programs developed by the Institute for Healthcare Improvement (IHI) in Cambridge to help hospitals improve the care they provide patients. With the Optimizing Patient Flow program, IHI offers new perspectives on the impediments to timely and efficient flow of patients through acute care settings. The program offers a model for evaluating patient flow, testing changes for improvement, and measuring results.

IHI and approximately 50 hospitals have been working together to evaluate what influences the smooth and timely flow of patients through hospital departments, and to develop and implement methods for improving flow. Specific areas of focus include reducing waits for inpatient admission through emergency departments, achieving timely and efficient transfer of patients from the intensive care unit and the post-anesthesia care unit (PACU) to medical/surgical units, and improving flow from the inpatient setting to long-term care facilities.

While few hospital areas are designed to achieve optimal flow of patients, the emergency department, intensive care unit, and operating rooms and their related pre- and post-care areas tend to be major bottlenecks because they are non-interchangeable resources. Reducing delays and unclogging bottlenecks depends on assessing and improving flow between and among these departments, and throughout the entire system, rather than in isolated departments.

IHI believes that the key to improving flow lies in reducing process variation that impacts flow. While some variability is normal, other variation is not and should be eliminated. Hospitals working with IHI have tested a range of changes to reduce process variation and improve flow. These changes are described in this paper.

Introduction

Patients and providers alike regard waits, delays, and cancellations as a normal part of getting and giving care. Particularly in hospitals, waiting seems intrinsic and, to many, intractable.

Acute care settings are plagued with waits, delays, and diversions. Nowhere is this more observable and its impact more palpable than in hospital emergency departments (EDs). These are busy places, and getting busier.

In the United States, EDs experienced a 20 percent increase in patient visits over the past decade.¹ Not surprisingly, ED waiting times have also increased. According to the Centers for Disease Control and Prevention, the average wait time for non-urgent visits increased between 1997 and 2000 by 33 percent, from 51 minutes to 68 minutes.²

Diverting ambulances away from hospitals that are at capacity is another problem on the rise. An October 2001 government study in the US showed that “ambulance diversions have impeded access to emergency services in metropolitan areas in at least 22 states since January 1, 2000. More than 75 million Americans reside in the areas affected by these ambulance diversions.”³

Examples abound, according to the study. “In Tucson, Arizona, so many hospitals diverted ambulances that paramedics had to struggle to find any place to bring patients. In the Boston area, ambulance diversions last year ran as much as ten times higher than in previous years. On some days in Atlanta, eight to ten hospitals diverted ambulances at the same time. In Los Angeles, two dozen emergency rooms at the heart of the area’s emergency system were closed to ambulances almost one-third of the time in June 2001.”⁴

The so-called “ED problem,” however, is actually a system problem. EDs do not exist in isolation, but are part of a system of care through which patients flow. Increasing capacity in the ED to accommodate more patients, a solution chosen by many hospitals, is like broadening only the large end of a funnel. Increasing input without facilitating a smooth exit (in this case, transfer to other hospital units) worsens the problem.

In a recent report on ED crowding, the US General Accounting Office (GAO) noted the connection between the ED and the rest of the hospital system: “While no single factor stands out as the reason why crowding occurs, GAO found the factor most commonly associated with crowding was the inability to transfer emergency patients to inpatient beds once a decision had been made to admit them as hospital patients rather than to treat and release them. When patients ‘board’ in the emergency department due to the inability to transfer them elsewhere, the space, staff, and other resources available to treat new emergency patients are diminished.”⁵

The units to which ED patients are often transferred must be viewed as integrated parts of the whole system. Most often EDs divert because the hospitals to which they are appended lack the space to move patients forward. A recent study of ED overcrowding showed that the primary reason hospitals go on diversion is the lack of available critical care beds.⁶

According to one expert, "...the frequency of ambulance diversion now correlates better with total occupancy than with ED volume. Increasing average occupancy levels, particularly in specialized units, often become a constraint leaving less room for unscheduled admissions. Admissions through the emergency department must be diverted, denied, or placed in a line or queue. As this pattern continues, the quality of care declines as all patients are increasingly placed into holding patterns."⁷

The costs of delays in care are many, including these:

- The ED becomes an inappropriate and expensive holding area when patients are not transferred to an inpatient unit in a timely manner. "Parking" patients in hallways to await transfer is an issue affecting service, care, and safety.
- When the ED is overcrowded because patients cannot be transferred quickly to care units or operating rooms, incoming patients can experience harmful delays in receiving care. Some even leave without being treated.
- Patients waiting to be transferred from the ICU to a patient care unit represent not only a service but also a cost issue: the ICU is a very expensive place to wait.

When surgical schedules back up, patients and providers are affected across the continuum of care.

Techniques that are used to manage ED flow itself will not have a strong impact on either hospital diversion rates or manage the problem of patients being "boarded" in the ED as they wait hours for an inpatient bed.

Waits and delays, bottlenecks and backlogs, are not the result of lack of effort or commitment on the part of staff. These problems cannot be solved by working harder. Rather, they illustrate what Donald M. Berwick, MD, MPP, President and Chief Executive Officer of the Institute for Healthcare Improvement, calls the first law of improvement: "...[E]very system is perfectly designed to achieve the results it achieves."⁸

The answer to improving flow of patients lies in redesigning the overall, system-wide work processes that create the flow problems.

Optimal care can only be delivered when the right patient is in the right place with the right provider and the right information at the right time. Improvement efforts in hospitals around the US are showing that it is possible to reduce waits and delays in hospital care, improving the flow of patients and information throughout the care system. The results of improving flow can include increased access, shorter waiting times, lower costs, and better outcomes.

Background

The Institute for Healthcare Improvement has been working with approximately 50 hospitals in the US and the UK in a year-long collaborative project to improve flow through acute care settings. An additional 100+ hospitals are also addressing the issue as part of IHI's IMPACT network, a group of change-oriented health care organizations committed to ambitious levels of improvement on a broad scale.

Through this work, hospitals have been testing the theory that the key to improving flow throughout the acute care setting lies in understanding the variability throughout the hospital system. This work focuses chiefly on the variation in waits, delays, and cancellations that occur when capacity does not match demand. Capacity and demand may match *on average*, and on paper it may look as though the system ought to flow smoothly. Indeed it will, if demand (patients) flows in predictably and capacity (staff) is ready to manage it. *However, even when capacity and demand are matched on average, the degree of variation in the timing of the arrival of patients (demand) and the ability of the staff (capacity) to absorb that demand results in waits, delays, and cancellations.*

Developing the ability to shape, predict, and manage variability and to allocate resources appropriately at the front line of care can improve patient outcomes, increase staff morale and retention, reduce costs, and improve quality of life for both patients and caregivers.

IHI's Challenge for Hospitals

The Institute for Healthcare Improvement has developed a process and methodology for hospitals to use in evaluating and improving patient flow in acute care settings. As part of its effort to foster improvements throughout the health care system, IHI invites hospitals to engage in this process, using the methods described in the following sections.

Step 1: Evaluate Flow: How Much of the Time Do You Get It Right?

The first step in evaluating the flow of patients through your acute care setting(s) is to find out, on average, how much of the time your hospital “gets it right” in moving patients through the system in a timely and efficient manner. In considering this question, your hospital needs to look at both the frequency of “parking” patients (i.e., keeping or placing admitted patients in a “holding” location—sometimes in the ED, sometimes simply in a hallway—when they cannot be moved immediately to their intended bed or location) and hospital occupancy as key indicators.

Two key questions help bring these issues into focus:

1. Do you “park” more than 2 percent of your admitted patients at some time during the day at least 50 percent of the time?

Example: In a hospital with a midnight census of 500 patients, 10 patients (2 percent) were “parked” during the day, waiting for admission to the final destination bed. This occurs more than half the time during the sample period.

2. Does your hospital have a midnight census of 90 percent or more of your bed capacity more than 50 percent of the time?

Example: A 500-bed hospital had more than 450 patients in the hospital at midnight (90 percent of capacity) more than half the time during the sample period.

If you answer “yes” to one or both of these questions, your hospital is likely struggling with flow problems on a regular basis. “Parking” patients is a clear indication that the system is inhibiting the smooth forward movement of patients to their appropriate destination. And if your midnight census is typically high, you probably experience capacity problems, since your hospital is virtually full at the start of the day, leaving little capacity for new admissions. To address these issues, you will have two tasks: working to reduce flow variation *and* “extending the chain”—that is, working with others along the continuum of care, including those outside your hospital, to smooth the flow of patients into and out of your organization.

Even if you answer “no” to both these questions, you may still feel that patients do not consistently move smoothly through the system. This may indicate a need to reduce flow variation (described in the next section).

Action: Evaluate patient flow by reviewing occupancy and “parking” of patients.

Step 2: Measure and Understand Flow Variation

Variation is intrinsic in health care. It is the result of clinical variability (number of patients presenting with certain clinical conditions), flow variability (the ebb and flow of patients arriving throughout the day), and professional variability (the variation in skill levels and techniques among providers). Eugene Litvak, PhD, Professor of Health Care and Operations Management and Director of the Program for Management of Variability in Health Care Delivery at the Boston University School of Management, has suggested that only the following scenario would eliminate variability:

1. All patients have the same disease with the same severity.
2. Patients arrive at the same rate every hour.
3. All providers (physicians and nurses) are equal in their ability to provide quality care.⁹

Some kinds of variability (so-called “random variability”) cannot be eliminated, or even reduced; they must be *managed*. This is true of patient variability. We cannot eliminate the many types of problems from which patients suffer, nor can we control when they arrive in the emergency department.

Other types of variability (“non-random”), on the other hand, are often driven by individual priorities, resulting, for example, in surgical schedules that are heavy on Wednesdays but light on Fridays due to surgeons’ preferences rather than actual demand. Non-random variability should not be managed; it should be *eliminated*.

Volume, census, and occupancy rates are often calculated and displayed as means or averages. However, it is the *variation* in these metrics that causes most of the flow problems in our hospital systems. Consider this example: The *mean* elective surgical volume for two hospitals for one week may be 125 patient cases each. Hospital A has a steady flow of surgical cases throughout the week, allowing for optimal scheduling and predictable demand for staffing and patient beds. Hospital B, which also has a mean of 125 cases, schedules 50 percent of its cases on Mondays and Wednesdays, and 50 percent on the remaining days. Because the caseload is so high on Mondays and Wednesdays, there is no room for the seemingly random but historically predictable surgical complications and added cases. The demand for staff, beds, and equipment is at a maximum. Any added volume or decrease in capacity is felt quickly as waits, delays, and cancellations.

Another helpful exercise is to look at the variation in census *between* each day of the week and the variation in census *within* each day. These measures often point to different problems and solutions.

Action: Measure and evaluate variability from all sources. Display the full range of the variability of measures like waiting times and daily surgical volume.

Step 3: Test Changes to Improve Flow

Hospitals that want to improve flow should consider testing two main groups of changes:

1. Changes that can be made within the hospital; and
2. Changes that result in cooperative relationships with other health care providers outside of the hospital.

1. Changes Within the Hospital

Smooth the Surgical Schedule

The surgical schedule is a major source of variation in flow. Several methods are showing early promise in smoothing the surgical schedule and making it more predictable, including the following:

- **Smooth the number of elective scheduled cases and case hours per working day.**

Scheduling the maximum number of elective surgeries into the schedule, even just on some days, leaves little flexibility for emergency surgeries. If your unscheduled surgery time currently averages 10 percent or more, adequate space should be left in the surgical schedule or you will routinely experience untenable waits for some surgical patients.

- **Designate separate ORs for scheduled and unscheduled surgeries.**

Since the vast majority of surgery is scheduled, most of the OR space should be so assigned. Utilization of the scheduled rooms then becomes predictable and controllable, and wait times for unscheduled surgery become manageable. Concerns about the cost of designating a surgeon strictly for emergencies are unwarranted, compared to the cost of canceling and delaying scheduled surgeries when an emergency surgery disrupts a day's elective schedule.

Schedule the Discharge

Admission bottlenecks are often created because discharges are not managed efficiently. Creating a more consistent and predictable discharge schedule can help improve flow. Some change methods include the following:

- **Provide a process for scheduling the date and time that patients will be discharged at least one day in advance.**

Although the date and time of discharge may be uncertain for some patients one day in advance, the usual hospital system behaves as if this were the case for all patients. In fact, early data indicate that nurses, doctors, and other health care providers can usually predict one day in advance which patients will be discharged the following day with more than 80 percent accuracy. They can predict with less accuracy which patients will be discharged the day after that and so on. However, in most cases this knowledge is not used to optimize, plan, or synchronize the work of discharging patients. This work will most likely require a centralized planning and scheduling function. Planners can record data about the ability of the system to comply with the schedule and can document reasons for noncompliance to identify bottlenecks and processes needing improvement.

- **Orchestrate the discharge.**

A set series of tasks must occur prior to discharging a patient. These tasks include examination and sign-off by appropriate providers and patient education. For each patient, the time of discharge and the tasks that need to be performed and in what order will be provided one day ahead of time. This allows all responsible persons to schedule their work accordingly.

- **Provide a process and a team for discharging patients with more complex issues, using data from discharge coordinators.**

Because of the condition of their health, lack of support, or psychosocial problems, some patients are difficult to place in appropriate settings after discharge. Although the time and date of discharge should be scheduled as for other patients, the orchestration of the discharge of these patients should be handled separately from the normal flow of patients. A special team that is capable of crafting customized and unusual solutions to meet the needs of these patients should do the orchestration.

- **Synchronize other movements to the discharge schedule.**

Once a discharge schedule is in place, internal transfers of patients, such as from an ICU to a patient care unit, can be synchronized to that schedule. Individual units can begin scheduling and orchestrating movements of their patients at a local level. This synchronization allows local, unit-level control and system-wide optimization to occur simultaneously.

2. Changes Involving Providers Outside of the Hospital

“Extend the Chain” of Flow Improvement

Responsibility driven by geography—that is, addressing only those problems in one’s own area—is the source of much variation in hospitals. Particularly for hospitals with patient flow problems, working with physicians and long-term care facilities—those with the power to impact both admissions and discharges—is an effective strategy to improve flow.

A common bottleneck in the ICU, for instance, is the inability to transfer chronic ventilator patients off the unit because there are not enough ventilator beds in other settings. One hospital solved this problem by partnering with an unaffiliated nursing home. The nursing home was able to open a ventilator unit because the hospital assigned an intensivist to serve as a part-time medical director for the unit. This helped improve flow out of the ICU and provide predictable income for the nursing home, and also resulted in high-quality, lower-cost care for the patients.

Other methods of “extending the chain” include promoting advanced access scheduling (sometimes referred to as “open access”) in physicians’ offices so patients can get timely access to ambulatory care in an appropriate setting, rather than resorting to the hospital ED, and working with hospice services to assure that end-of-life care is provided in the most appropriate, but least intensive, setting.

Action: Select and test the changes that seem to hold potential for improving flow, both within the hospital and with providers outside of the hospital, based on your evaluation of flow variability.

Conclusion

Understanding patient flow requires looking at the whole system of care, not just in isolated units. Reducing variation in flow has been shown to improve overall patient flow. Providing patients with timely access to appropriate care is an essential element of high quality care, because *when* care is provided is often as important as *what* care is provided.

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