

10•06 PARTNERS

A newsletter for all physicians in the Partners HealthCare System

MAKING OUR CARE EVEN BETTER THROUGH

High Performance Medicine

“Partners hospitals, doctors, and nurses have succeeded in many respects in upgrading our quality and safety. But more work is needed to meet the high goals that set us apart.”

– James Mongan, M.D.

President and CEO, Partners HealthCare

In the beginning.

The roots of High Performance Medicine were developed three years ago through a series of initiatives to bring the practice of medicine closer to advances in medical technology and practice and to keep Partners in the forefront of efforts to improve patient care. Advances in medicine and technology have vastly expanded the capacity of our health care system to prevent, diagnose, treat, and cure illnesses. Unfortunately, improvements in standard medical practice have not kept pace with these advances. The result is a large and growing gap between what medical care *could* offer and what it *does* offer.

Closing the gap between the potential and the actual delivery of care is a complex task with multiple layers of challenges. The rapid advance of knowledge has made it difficult, if not impossible, for individual physicians like



James Mongan, M.D.

you to know everything that might benefit your patients, or what treatment strategies might be most efficient. Where some physicians once relied on their own memories and judgment alone, they now use decision support embedded in systems like the electronic medical record.

Rather than working mainly as individuals, you and other physicians have become collaborators, working with colleagues and specialists, particularly for patients with complex medical conditions. Rather than focusing solely on the patient in front of you, physicians are increasingly taking responsibility for patients not in your office but who still need to be monitored and treated.

The knowledge explosion.

The typical primary care physician spends an average of 74 minutes a day reviewing test results, and has to review an estimated 800 chemistry and hematology reports, 40 radiology reports, and 12 pathology reports every week. In a recent study, 83 percent of primary care physicians reported that there had been at least one test result they wish they had known about sooner during the previous two months.

PARTNERS PERSPECTIVE



This issue of *Partners Rounds* is entirely devoted to our system-wide work on quality and efficiency. During the past several months, Jim Mongan and his leadership team spent a lot of time talking with institutional leaders, physician leaders, and practicing physicians about what we have accomplished to date with this work and where we should go with it. These conversations culminated in a leadership retreat in mid-September attended by more than 150 physician opinion leaders.

What we learned from those consultations and discussions was that there is broad support for our quality and efficiency

George Thibault, M.D.

work. Physicians believe that it is very important and that we should accelerate the pace if we are to maintain and further enhance our leadership position in medicine locally and nationally. We also learned that the name “Signature Initiatives” has not effectively described what this work is, and has not appropriately conveyed the idea that the goal of all of this is the delivery of better care to our patients. After a great deal of discussion, the term “High Performance Medicine” seemed to describe best what these quality and efficiency initiatives are all about.

So, what does “High Performance Medicine” mean? The meaning ultimately will be defined by us over time as we

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Thomas Lee, M.D.

“When I graduated from medical school, everything I needed to know was in books I could read. Today, it’s impossible to read and know all that is available. A computer with prompts and recommendations is essential to the practice of modern medicine.”

– Thomas Lee, M.D., CEO of Partners Community HealthCare Inc. (PCHI) and a practicing cardiologist at Brigham and Women’s Hospital

Better care for the sickest patients.

Multiple physicians can be involved in the care of our sickest patients, and communication and coordination among them are often far from ideal. The result can lead to unnecessary costs and avoidable risks. This has created an imperative to move our system forward to utilize newer, better technologies and systems in order to meet the highest standards of care.

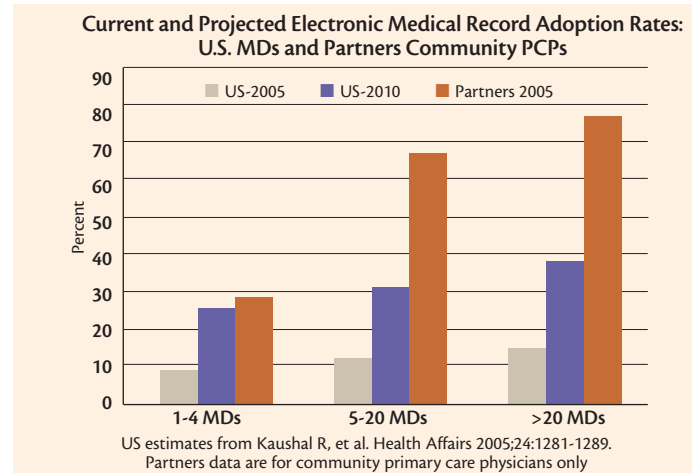
Computers are as common in a modern doctor’s office as telephones. But we have not made full use of digital technology to improve care. It is one thing for a physician or a practice to have computers with the electronic medical record and automated prescribing on their desks, and quite another to use them consistently and completely for the benefit of patients and collaborating physicians.

What you told us.

To assess our progress, we held a series of meetings over the summer with physician leaders and practicing physicians from throughout the Partners system. You told us that you are incredibly busy and have little time for anything new that doesn’t help you or your patients. You told us we needed to be more direct in making our case and setting expectations and deadlines, and that we don’t need to persuade you to adopt new technology; instead, you said you needed our help to use these new tools and systems more effectively to improve things for you and your patients alike.

While you told us you strongly supported our efforts to improve quality and efficiency throughout the Partners system, you said the name Signature Initiatives did not adequately convey the breadth and depth of the work we are now undertaking. As a result, we are introducing a new name – High Performance Medicine – to describe our efforts, and we will be using this term internally and externally to better communicate our continuing focus on excellence in all areas.

The point is that we are no longer in a research and development phase. We are beyond pilots. We are ready to adopt



certain systems and practices across the board. Reliable use of these systems and practices should begin to define the care that we all provide across the Partners system, from academic medical centers to community hospitals, from specialists to primary care physicians.

Together, we have achieved much success.

In many areas of medicine, Partners hospitals are routinely ranked among the nation’s leaders. Less publicized, however, is the significant progress our physicians and nurses have achieved in three years in integrating modern technology into our life-saving work.

They center on prescribing by computer, using the electronic medical record, increasing the reliability of care we provide to key patient populations, better managing the care of our sickest and most expensive patients, minimizing medication errors, and reducing the unnecessary use of costly medications and expensive radiology tests.

Shuffling less paper. The electronic medical record.

Similar progress has been made in the implementation of the electronic medical record, which is currently used by 85-90 percent of physicians based at Partners’ two academic

medical centers. As recently as 2003, only 9 percent of our community-based primary care (PCHI) physicians were using EMR, but by mid-2006, more than 60 percent of them were using or in the course of implementing EMR. Progress has been most marked among larger physician practices in the PCHI network.

Reducing medication errors.

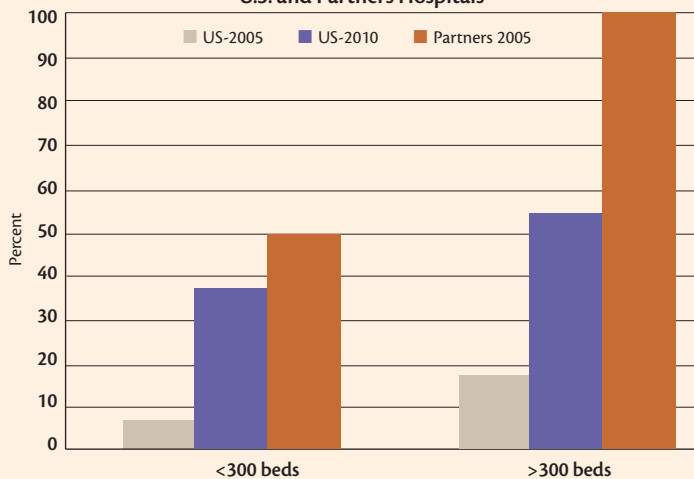
By 2010, all Partners hospitals will have in place integrated systems to minimize medication errors. These systems begin with computerized order entry. Next come measures like “smart pumps” and “bar coding” to ensure that the right patient gets the right drug at the right dose at the right time.

Research at Partners hospitals and elsewhere has shown that such systems dramatically reduce medication errors. Use of computerized provider order entry alone reduced medication-related errors by 55 percent in one trial. Another study found that improvements in “decision support” that automatically evaluate a drug’s risk to an individual patient – based on his or her age, kidney function, other drugs, and medical conditions – led to an 83 percent reduction in the overall rate of medication errors.

The end of the prescription pad. Prescribing by computer.

In 2005, computerized provider order entry was in use in about 8 percent of U.S. hospitals with fewer than 300 beds and 17 percent at hospitals with 300 or more beds.

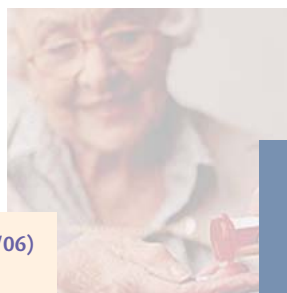
Current and Projected Computerized Provider Order Entry Implementation: U.S. and Partners Hospitals



US estimates from Kaushal R, et al. Health Affairs 2005;24:1281-1289. Partners facilities with <300 beds include Faulker, Newton-Wellesley, Salem, and Union Hospitals

These rates are expected to rise, but very slowly, to only 37 percent and 53 percent, respectively, by the year 2010.

At Partners, we exceeded these end-of-decade national projections in 2005. Computerized provider order entry is fully implemented at our two academic medical centers and at Faulkner Hospital and Newton-Wellesley Hospital, and will be fully implemented at North Shore Medical Center (Union and Salem Hospitals) by June 2007.



A typical primary care physician spends an average of 74 minutes a day reviewing test results.

Leading PCHI Groups Using EMR/LMR (as of 6/30/06)

RSO	Total PCPs	Percent of PCPs Using EMR/LMR
Compass Medical	25	100
Mass General PO	276	91
Brigham and Women’s PO	129	85
Charles River Medical	35	71
Cape Ann Medical/Pediatrics	10	70
Pentucket Medical	27	63
Hawthorn Medical Associates	26	54
North Shore Health System	117	53
Cambridge Health Alliance	82	52
Newton-Wellesley PHO	88	49
Northeast PHO	78	45
Affiliated Pediatric Practices	74	32

Focusing on the sickest, most costly patients.

Because 10 percent of all patients account for 70 percent of health care costs, Partners has targeted certain patients with high-cost diseases for special attention. For example, we have funded nurse practitioners at our acute care hospitals to better manage patients with congestive heart failure. In the first three years of this program, we have reduced rates of hospital re-admission among enrolled patients by at least 15 percent.

By automatically enrolling heart failure patients into the program, unless the physician feels that the program does not have value for a specific individual, we have increased the proportion of patients participating from 25 percent to almost 80 percent. Another Partners program provides telephonic nurse “coaching” to 1,500 high-risk Medicaid and uninsured patients. Data on the impact of this intervention on patient and physician satisfaction and health care costs will be available later this year, but preliminary information is very encouraging.

Improved care for key patient populations.

Software has been developed to help Partners identify and track key patient populations, such as patients with acute myocardial infarction, heart failure, and diabetes. With that information, we will track the percentage of patients who have received all recommended interventions and reached

their treatment goals. By focusing on these key patient populations, we already have improved the reliability of care across our system. On one key measure of diabetes care, for example, Partners has improved faster than other hospitals in Massachusetts and the nation as a whole. We currently exceed the national 90th percentile on all diabetes care process measures.

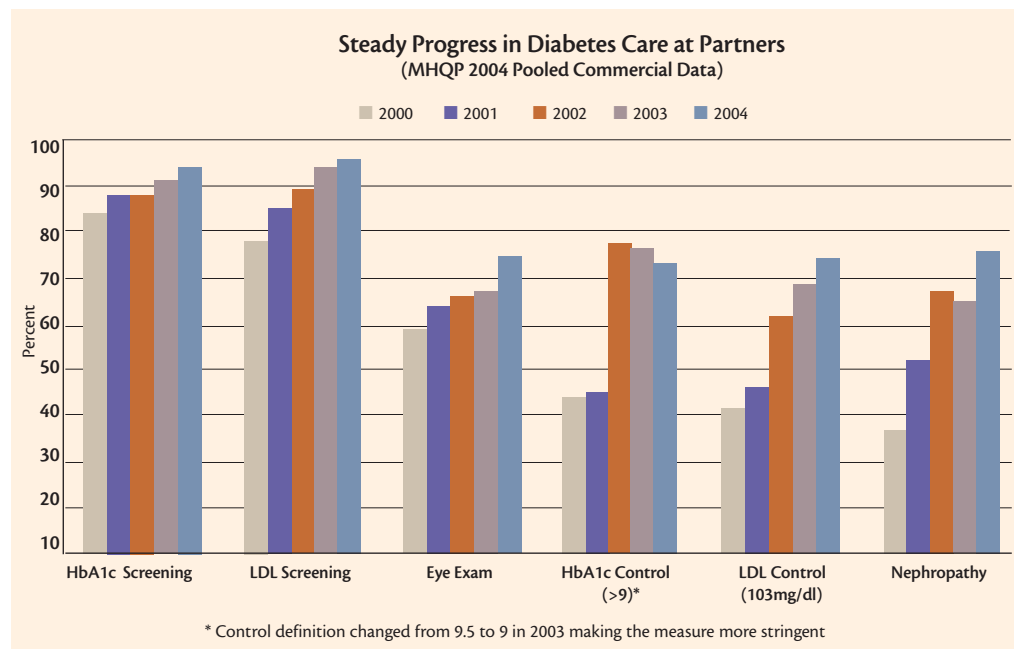
Guidelines for high-cost medications and imaging.

To address two areas of high costs, we have developed decision-support systems for physicians in prescription writing and in the use of expensive radiology tests. Committees of physician experts, supported by our pharmacists and other staff, developed guidelines for which medications and which tests should be used first, ranging from “green” (most favored), to “yellow” (second choice), to “red” (last choice).

Our physicians call a toll-free number to seek authorization for use of such high-cost radiology tests as an MRI or a nuclear cardiology scan. Despite the fact that our academic medical centers handle highly complex cases, Partners doctors use high-cost radiology tests less often than other physicians in our region and in the U.S. as a whole. The cost of imaging and drugs is of continuing concern to insurers, policymakers, and the public, making it even more important that we continue to focus on these high-cost areas of medical practice.



Nationally, 10% of patients represent 70% of health care costs. In Partners managed care contracts, 3% of our patients account for nearly half of our costs.



But there is still much work to do.

While we have made much progress in improving quality, safety, and efficiency throughout our system, we still have a long way to go.

For example, even though we have made tremendous progress in adopting the electronic medical record, a third of prescriptions are still being written by hand. Half of diabetic patients are still not receiving all recommended interventions. Hospital re-admissions of high-risk patients due to poor coordination of care are still too common. While we have made progress in mitigating drug and radiology costs, we are only slightly more efficient than comparable hospitals in the region.

We need to broaden and deepen our efforts. We must broaden our efforts by making sure that the new technologies and systems are fully disseminated throughout our system. We are working hard on this, but we know that we still have a distance to go.

Likewise, we must deepen our efforts by using these new technologies and systems more consistently and completely for the benefit of our patients, our colleagues, and the entire health care system. While we know that this can be difficult at first, the ultimate benefits are clear and many.

Implementation of Safe Medication Administration Technology (as of 6/30/06)

PHS Entity	eMAR*	Bar Code Patient	Bar Code Staff	Bar Code Medication	Smart Pumps
MGH	0%	90%	100%	0%	42%
BWH	83%	90%	90%	100%	81%
Faulkner	0%	0%	0%	0%	0%
NWH	0%	0%	0%	0%	73%
NSMC	0%	100%	50%	0%	75%

* eMAR=Electronic Medication Administration Record System

Our communications will be better, thanks to our physicians.

What we have learned: listen.

Over the summer, we met with senior clinical leaders from throughout the Partners system and held focus group discussions with practicing physicians. We learned that the rationale for the Signature Initiatives was sound but it was fragmented into five areas, rather than being a broad new approach.

We learned that communicating this work can be difficult, especially for busy physicians, and we needed to use every medium, from internal ads to email to computer prompts to mass media advertising. You also told us that clinical leaders – chairs, division chiefs, program directors, and practice heads – need to carry the message.

We learned that you want us to improve the usability of computer systems and provide more, quicker, and better support. You also told us you want progress reports, so you know how we are doing relative to others within and outside the Partners system.

“High Performance Medicine”

will be the theme of a new Partners communications effort. Our hope is to translate the work of the Signature Initiatives into language that physicians, opinion leaders, and patients can more easily understand. Information directed to physicians, nurses, and other caregivers soon will appear in all Partners participating hospitals. Advertisements aimed at opinion leaders and consumers soon will be seen in the Sunday *Boston Globe* Ideas section. In addition, new screen savers on all Partners computers soon will be used to remind physicians and other clinicians of the important work we are undertaking and the successes we are seeing.

Partners “pay-for-performance” contracts provide up to \$90 million a year in incentives for improvements in efficiency, safety, and reliability of care.



What is High Performance Medicine?

High Performance Medicine means going beyond the clinical excellence provided by our individual physicians, nurses, and other caregivers. It means:

- Accepting our responsibility not just to assert our quality, but to demonstrate it.
- Setting the goal of continuous improvement.
- Taking responsibility for both improved quality and efficiency.
- Keeping the focus on each episode of care for individual patients, while also monitoring certain populations of patients over time.

We now are actively discussing ways in which we can move these goals forward, such as setting deadlines for e-prescribing, ensuring that all patients discharged from the hospital leave with all seven key data elements, and that all patients being discharged after admission for acute myocardial infarction or congestive heart failure have had key care interventions.

The challenges in completing this work vary across our system, so the deadlines and work plans for hospitals and doctors may not all be the same. That said, we believe the time has come to set deadlines, make plans, and implement them.

Demonstrating our performance.

Health care consumes 16 percent of the U.S. gross domestic product and is rising. Payers, policymakers, and consumers alike understandably are asking what they are getting for their health care dollar. Is the quality of our health care system the best it can be? Are resources being used as cost effectively as possible? How are individual providers performing?

A new scorecard

from the Commonwealth Fund's Commission on a High Performance Health System paints a disturbing picture. Based on 37 key indicators, the U.S. scored a relatively meager 66 out of a possible 100 points on such things as medication errors, preventable deaths, and disparities among low-income, uninsured, and minority patients.

The change has arrived.

Today, Partners has pay-for-performance contracts with all of our major payers, and the state will be moving to a pay-for-performance system for Medicaid patients on a phased-in basis over the next three years. As you may know, websites are proliferating that attempt to provide consumers and other payers with information on the performance of individual health care providers and institutions. Stories about our performance and the performance of our competitors are beginning to appear with increasing regularity in the local and national media.

We must embrace the change.

Increased accountability and transparency in health care have arrived. At Partners, we have a long history of clinical excellence. Now is the time for us to demonstrate our leadership once again.

Feedback?

If you want to comment on anything in this issue of *Rounds*, please send an email – no paper, remember? – to Thomas Lee, M.D. (thlee@partners.org) or George Thibault, M.D. (gthibault@partners.org).

It's 10:58 pm.
You're on call and you just
looked up the medical record
of your colleague's patient.
From home.

BOSTON INNOVATORS HEALTH CARE

Why it's crucial for doctors, nurses, and hospitals to move beyond paper records.

Advances in medicine and technology have greatly expanded the ability of our healthcare system to prevent, diagnose, treat, and cure disease. That's why Partners HealthCare has developed new tools that help our doctors, nurses, and hospitals bring their advances to our patients to improve the quality, safety, and efficiency of our care.

The rates of preventable medical errors are an average of 74 million a day, according to studies. Each week, for example, we estimate 100,000 medication and handwriting errors, 40 radiology reports, and 12 pathology reports.

At Partners, our doctors use e-prescribing, meaning they use paper records. They use a computer to enter and find test results, referred to when called the electronic medical record, or EMR, which provides information on the patient's medical history.

Doctors at the hospital can see not only what medications Patients receive but also when they were administered, but also when medications were not taken.

If your doctor refers you to Partners, you'll see your EMR, your test results, and the specialist's notes are available in a fraction of the time it used to take them or the test results, CT scan and a step toward saving us

• 100 cost reductions. Digital images can be sent electronically to the referring doctor's computer system, for you and your doctor to review and share.

Partners is moving rapidly forward on the implementation of EHR, taking 40% percent of primary care physicians and specialists in our new locations, including Brigham and Women's Hospital and Massachusetts General Hospital, have EHR.

EHR is in the process of being implemented at Faulkner Hospital and Newton-Wellesley Hospital, as well as North Shore Medical Center's Fabian and Chase Hospitals.

About 50 percent of our community-based primary care physicians are using an implementing EHR, and that number is growing every week.

Partners HealthCare is proud that our doctors, nurses, and other health professionals are leaders in medical excellence. High Performance Medicine is the technology to help lead.

A next step for us is to plan, as long as your medical history doesn't get lost there.

For more information, go to www.partners.org

HIGH PERFORMANCE MEDICINE
Better, safer, more cost-effective care.

PARTNERS
HEALTHCARE

Brigham and Women's Hospital, Massachusetts General Hospital, Faulkner Hospital, Newton-Wellesley Hospital, North Shore Medical Center, and Partners Community HealthCare Inc. (PCHI)

Our high performance lives designed to improve care, the EMR is the one thing we all together as one around each patient. Once medical record is electronic, lists and PCPs alike can see patient's complete medical online from anywhere.

At home computer. And every prescription is automatically checked against the patient's complete medical history as it's prescribed. So there are no surprises due to lack of information about a patient's allergies or other prescriptions. But the promise of EHR need only with 100% usage. Which means one more person must be on board. You.

HIGH PERFORMANCE MEDICINE
Better, safer, more cost-effective care.

PARTNERS
HEALTHCARE

Brigham and Women's Hospital, Massachusetts General Hospital, Faulkner Hospital, Newton-Wellesley Hospital, North Shore Medical Center, and Partners Community HealthCare Inc. (PCHI)



Last month, the Commonwealth Fund's Commission on a High Performance Health System gave the U.S. health care system a score of 66 out of a possible 100. The U.S. did not achieve top marks in any single assessed health care category. In commenting on the score, Commission Chair and Partners President and CEO James Mongan, M.D., noted: "There can certainly be debate among reasonable people about exactly what a certain score means. But to me, the message from this report is very clear. We can do much better, and we need to do much better."



Perspective...continued from page 1

work together to develop the systems and teams that enable all of our clinicians – doctors, nurses, and other health professionals – to feel that they are reliably and predictably providing the best care for their patients at all times and in all settings. What we can say now is that the term does represent our commitment that we will measure our performance to demonstrate our quality, that we will set goals to continually improve, that we will take responsibility for both the quality and efficiency of our care, and that we will achieve excellence in every episode of care and in the management of our patients over time.

But these important discussions have not just been about a name change. We have heard that it is imperative that we both deepen and broaden these efforts:

- Deepening the efforts means that we must achieve fully the goals we started with: all of our physicians must have and effectively use the EMR; all of our hospitals must have CPOE with optimal decision support; all of our drugs must be administered by the safest systems available; all of our appropriate patients with AMI, CHF, pneumonia, and diabetes must get the recommended interventions; all of our appropriate high-risk patients must benefit from our improved disease management programs; and all of our high-cost drug and imaging ordering must be done with decision supports to maximize appropriateness and efficiency.
- Broadening the efforts means that we must include many more patient conditions, specialties, and care providers in our initiatives. We have begun the discussions about what “High Performance Medicine” means for surgery, OB/GYN, pediatrics, psychiatry, other medical specialties, and very importantly, for nursing practice.

Over the next several months, we will be working on setting new goals and selecting additional metrics for performance. With the clinical leaders in each of our organizations, we will be looking for your input. Among the questions we will be asking will be:

- When can we expect that all prescriptions for Partners patients will be written electronically?
- When can we expect that all patients transferred from acute care to another setting will have all essential elements of clinical information accompany them on transfer?
- When can we expect that 100 percent of all appropriate MI, CHF, pneumonia, and diabetes patients will have the agreed-upon components of care documented?
- What new metrics should we use to set goals in other specialties and in nursing?

We have an opportunity to lead in defining the standards for medical practice – that is really the goal of “High Performance Medicine.” We all are proud to work in an organization that is a leader – in patient care, in training, and in the generation of new knowledge. We now have an opportunity and an obligation to lead in a new way. This will require each of us to examine what it means to be a “Partners doctor,” and it will require the organization to examine what its obligations are if each Partners doctor is to fulfill his or her potential. We have begun this discussion, and we look forward to your participation.

George E. Thibault MD
George E. Thibault, M.D.

Communications Advisory Committee

If you have comments about this issue of *Partners Rounds*, or topic suggestions for future issues, please feel free to email us at clinicalaffairs@partners.org, or contact any of these members of our Communications Advisory Committee.

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OUR OBJECTIVES

- Uniform high quality
- Maximum safety
- Improved cost efficiency

OUR METHODS

- Maximizing the use of new information technology
- Increasing patient safety and reducing medical errors
- Making high quality uniform across the Partners system
- Coordinating care for patients with high-cost diseases
- Improving efficiency in the use of medications and radiology

OUR GOALS FOR THE FUTURE

- 100% EMR adoption and use
- 100% CPOE adoption and use
- Eliminate all paper prescriptions
- Fully implement systems to minimize medication errors
- Ensure that certain patient populations reliably receive all recommended interventions
- Consistently monitor our sickest and most expensive patients to keep them healthy and out of the hospital
- Ensure that high-cost drugs and radiology tests are ordered only when no lower-cost and equally effective options are available

PARTNERS

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