Center for American Progress

Better Health Care at Lower Costs

Why Health Care Reform Will Drive Better Models of Health Care Delivery

Ellen-Marie Whelan and Lesley Russell   March 2010

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Introduction and summary

Doris Jones is a 70-year-old senior citizen with multiple health conditions, including diabetes, high blood pressure, heart problems, and arthritis. Doris struggles to manage these chronic conditions, which are exacerbated by her poor diet, immobility, and the cost of her medications.

Fortunately Doris receives her care at a very good primary care practice that boasts a variety of health care systems in place to help coordinate all her healthcare needs. The practice has a specially trained nurse, called a "care coordinator," who makes sure Doris' weight, blood pressure, blood glucose, and cholesterol are routinely measured, and a diabetes educator who gives Doris nutrition advice and helped her get a new monitor to check her blood sugar levels with a large screen to accommodate her failing eyesight. Doris's medical records are kept electronically, which means that all her regular blood tests and the MRI scan she's had to assess her kidney function are shared with all her doctors, eliminating the need for each doctor to order the same tests.

All of these points of coordinated care—regular checkups, health advice, and care coordination—keep Doris in control of her health (see box). But critical to the national debate over health care reform, her coordinated care saves her time, travel, and money. Medicare also saves money because there are no duplicated or unnecessary services.

A key aim of health care reform is to bring better quality and more affordable health care to all Americans. Many people fear that less expensive health care means fewer services, but in health care more is not always better and sometimes is actually worse.[1] Doris belongs to a health care system that helps people stay healthy through better preventive services, advice, and guidance on physical and mental well-being, and regular screenings and checkups. The system also recognizes the difficulty many older, chronically ill patients may have in managing their treatment regimes, and provides assistance with this. Doris's primary care physician, her other doctors and care providers, her hospital, and her community-based services are all connected to ensure seamless care delivery and effective communication.

The good news is that Doris doesn't live in a yet-to-be-realized ideal world. Remarkably, these gold-standard health care practice patterns not only deliver better patient care and better health outcomes, but also have the potential to save the U.S. health care system billions of dollars every year if they become the models for health care reform nationwide.

Doris' Story

Seventy-year-old Doris learned quickly how different coordinated, quality care would be for her health and financial well-being when she first transferred to a new primary care practice. At one of her first visits to this practice, her primary care doctor initiated a review of all the medicines Doris was taking, prescribed by four different doctors. After consultation with all her specialists, it was agreed that some of Doris' medications were unnecessary and another was at the wrong dose, which could possibly have been dangerous.

The changes in her medication regime improved Doris' well-being and also her budget. Now Doris has better control over her symptoms, less confusion with dosages, and no longer experiences the dizziness that had caused her to fall several times in the past.

What's more, both she and her providers are better prepared to provide quality emergency care. Last year, for example, Doris was taken to the nearby emergency department with a suspected heart attack. The hospital could quickly access her electronic medical records, and so knew her history, which helped determine how to best treat her. Those records also helped identify a potential complication that could have occurred had she been given a new drug that would have interacted badly with her current medications. On her discharge, the hospital immediately sent a copy of all her tests to her primary care doctor and her long-time cardiologist. Although Doris spent several days in the hospital, she hasn't been back since.

Good primary care and coordinated communications with her cardiologist, endocrinologist, and hospital staff after she was discharged helped to make sure Doris did not end up back in the hospital with another costly bill. Now, when Doris or her family are worried, there is a number they can call 24 hours a day to have their questions answered, and Doris's care coordinator even visits her at home if needed, something that kept Doris out of the hospital when she caught a nasty case of the flu last winter.

At this point of the report we must note that Doris is not a real patient. Her experience is a compilation of real life examples from different innovative models of health care delivery that now exist in the United States. See main report to understand how these experiences add up to comprehensive quality health care at lower cost and how they can be implemented in real life when health care reform is enacted.

There are many ways to decrease the cost of health care while ensuring quality care and there are many examples of this underway in the United States right now. These new approaches:

- Reduce the waste and duplication when every doctor a patient sees orders the same tests
- Limit the chances of medical errors
- Prevent hospital admissions and hospital-acquired infections.

Too many patients do not get all the care they need because our nation's current health care system is fragmented and hard to navigate. That means they are increasingly likely to end up in the emergency department or hospital needing expensive treatment for conditions that could have been prevented.

This paper describes a number of innovative models of care delivery that are currently delivering the dual goals of providing better health care and better value, and outlines the key elements of these new approaches to health care delivery and financing that should be part of the reform of the health care system.

How health reform can change the way health care is delivered

Today we get what we pay for in health care. When we pay for high-tech services and procedures, we get a health care system that emphasizes volume and intensity, paying for more services regardless of the value they provide. It's a system that doesn't always keep people healthier. If we change the incentives by changing the reimbursement system so that we pay for value, not volume, then we have enormous potential to slow the growth in health care costs and improve patient health.

Real health care reform requires that we move in precisely this direction. There are many innovative initiatives currently operating across the United States that can serves as models for this change in the way health care services are financed and delivered. These new models are working effectively despite the fact that they have been designed and implemented in a system that does not accurately reward their good work. In short, they have succeeded in spite of the current payment system not because of it.

Health care reform promises to change these upside-down incentives and to reward providers who deliver better care at lower cost. Indeed we must do this if health costs are to decrease and Medicare is to be sustainable into the future. Some of the models that will be developed, tested, monitored and evaluated under the authorities provided in the health care reform legislation include:

- Financially rewarding the delivery of primary care through approaches such as the "medical home" and other care coordination programs that reimburse primary care practices to provide and coordinate patients' care

- Bundling payment for episodes of care rather than paying for individual visits or procedures, again to coordinate care and improve outcomes

- Linking medical practices into integrated health delivery organizations such as Accountable Care Organizations by establishing payment arrangements that move towards so-called global capitation, which pays a single price for all the health care services needed by patients in a given time frame

- Investigating ways large and small that will help deliver safer, better quality services in hospitals and in the community

Let's now consider examples of each of these models, how they have been implemented in communities across the nation, and the specific information they provide about how quality, lower cost, coordinated care can be delivered.

Preventable medical errors

Each year in the United States as many as 98,000 deaths result from medical errors.[2] From 2004 through 2006, patient safety errors resulted in 238,337 potentially preventable deaths of Medicare patients and cost the Medicare program $8.8 billion. The overall medical error rate was about 3 percent for all Medicare patients, or about 1.1 million patient safety incidents, during the three years included in this analysis. Patients who experienced a patient safety incident had a 20 percent chance of dying as a result of the incident.[3]

Among the causes of preventable deaths and injury in hospital, medication errors and hospital-acquired infections rank high. A recent study showed that sepsis and pneumonia caused by hospital-acquired infections cost $8.1 billion to treat and killed 48,000 patients in 2006.[4] Many of these are intravenous catheter-related bloodstream infections in patients in intensive care units. About 250,000 hospital patients contract these infections annually, costing an estimated $9 billion in extra care.[5]

Coordinated quality care reduces the chances of medical errors. Checklist-type initiatives such as those driven by Peter Provonost, an anesthesiologist at Johns Hopkins Hospital, Harvard pediatrician Donald Berwick, and Atul Gawande, a surgeon at Harvard, show how quickly and cheaply dramatic progress can be made in reducing hospital-acquired infections, saving lives and money.[6] A health care checklist is usually nothing more than a list of what every provider knows should be done for a given procedure. But just as a checklist ensures that pilots go through all the necessary steps when flying a plane, so can a checklist help health care workers correctly manage a complicated procedure in an environment where time is critical.

Electronic prescribing addresses the second serious problem—medication and prescribing errors. Nearly a quarter of all hospital patients experience medication errors, a rate that has increased from 5 percent in 1992.[7] Illegible handwriting and transcription errors are responsible for as much as 61 percent of medication errors in hospitals. A simple mistake, such as putting the decimal point in the wrong place, can have serious consequences because a patient's dosage could be 10 times the recommended amount. Confusion of drugs with similar names is another common source of error.

Currently only about 9 percent of hospitals have computerized prescription systems. It is estimated that effective use of well-designed computerized physician prescribing systems in every nonrural hospital in the U.S. could prevent 522,000 serious medication errors and more than 500 deaths each year.[8] Here are some successful examples today of health care providers reducing medical errors through coordinated quality care.

Successful examples

The Keystone Initiative in Michigan, which began in 2004, uses a series of checklists focusing specifically on preventing infections in intravenous lines and catheters. The program, involving 108 intensive care units, focuses on using checklists of evidence-based interventions and changing hospital culture, and was funded by the Department of Health and Human Services' Agency for Healthcare Research and Quality. Physicians and nurses at the participating Michigan intensive care units implemented the following interventions:

- Routinely washing hands
- Using full sterile procedures when catheters are inserted into veins
- Cleaning the patient's skin with chlorhexidine, a long-lasting liquid antiseptic soap
- Avoiding the femoral site (groin area) for catheter insertion, when possible
- Removing unnecessary catheters

Within three months of implementing this simple set of interventions, Michigan ICUs slashed their bloodstream infection rates by 66 percent. The median infection rate dropped from 2.3 per 1,000 catheter days (an important hospital measure) to near zero.[9] From 2004 to 2008, nearly 1,800 lives were saved and 129,000 extra days in the hospital were avoided due to this patient-safety initiative. Each hospital spent about $120,000 in staff time to implement the safety changes and estimated savings were over $200 million. These impressive results have been sustained through to the present.

Another system that dramatically reduces medical errors is the use of computerized physician order-entry, or CPOE systems, where physicians order medications electronically. First, CPOE systems ensure the physician's order is complete, unambiguous, and legible. The computer also assists the physician at the time of ordering by suggesting appropriate doses and frequencies, suggesting relevant laboratory tests to order, and screening for allergies and possible adverse interactions between medicines.

Brigham and Women's Hospital, a large teaching hospital in Boston, developed such a CPOE system and measured the reduction in errors over a five-year period. They found that serious medication errors (those that actually caused injury or had the potential to cause injury) fell by 86 percent.[10] Preventable adverse drug events such as injury due to medication mistakes declined by 62 percent, and potential adverse drug events, or "near misses" that reached the patient but didn't cause injury by chance, were reduced 100 percent to zero. And error reductions occurred at all stages of the medication use process, comprised of drug ordering, transcribing, dispensing, and administering.

A cost analysis found that the CPOE system at Brigham and Women's Hospital realized net savings of $16.7 million over 10 years, including net savings of $9.5 million to the hospital's operating budget and produced better outcomes for patients.[11] Because CPOE systems

"Faulty memory and distraction are a particular danger in what engineers call all-or-none processes: whether running to the store to buy ingredients for a cake, preparing an airplane for takeoff, or evaluating a sick person in the hospital, if you miss just one key thing, you might as well not have made the effort at all."

—*Atul Gawande, The Checklist Manifesto: How to Get Things Right (New York: Metropolitan Books, 2009).*

http://www.npr.org/templates/story/story.php?storyId=122226184

fundamentally change the ordering process, they can substantially decrease the overuse, underuse, and misuse of health care services, leading to decreased costs, shortened hospital stays, decreased medical errors, and improved compliance with clinical guidelines.

Medical homes provide better primary care

The term "medical home" is commonly used to describe a primary care practice that enables its health care providers to focus on primary care and serves as the focal point for the coordination of care. Medical home models provide a patient-based, proactive, and planned approach to care, where care is coordinated across various providers to facilitate the provision of recommended services, eliminate redundancies or unnecessary care, and engage patients. They are managed by primary care clinicians who receive supplemental payments (on a fee-for-service or per patient-per month basis) from health insurance payers to support their required coordinating activities.

Since chronic disease accounts for 75 percent of our health care spending, it is reasonable to focus on improving prevention and management of chronic conditions. One of the best approaches to accomplish this is though enhanced primary care, which the medical home can provide. Studies find that medical homes:

- Reduce health care spending
- Improve health status
- Support disease management and prevention
- Improve the quality of care
- Reduce medical errors
- Reduce racial and ethnic health disparities[12]

The medical home approach to improved primary care is not new. Various payers and insurers, public and private, are developing or have implemented medical home pilots.[13] This growing list includes 31 states that are exploring the medical home concept for their Medicaid enrollees.[14]

Successful examples

Guided Care is one example of a medical home model specifically targeting older adults with complex chronic conditions. The Guided Care model was implemented in 2003 by a team of researchers at Johns Hopkins University.[15] It employs an interdisciplinary team, headed by a specially trained registered nurse to plan and coordinate care for the patients who enroll in the program. The nurses work with patients on a long-term basis, provide transitional care, develop patients' self-management skills, and educate them on accessing necessary community-based services such as transportation services, Meals on Wheels, and other supportive services.

Guided Care program results improve the quality of care and reduce health care costs because of less time spent in hospitals and skilled nursing facilities (nursing homes) and fewer emergency room visits and home health episodes.[16] The researchers also find that the Guided Care patients have better management of their chronic conditions, especially due to the improved the communication and coordination among providers.

Early results from a multisite, randomized control trial indicate that Guided Care improves the quality of healthcare as measured by patient outcomes, physician and provider satisfaction, and costs.[17] In addition to (and in fact because of) the improved outcomes (fewer emergency room visits and hospital stays), patients in the Guided Care program had Medicare costs that were 11 to 23 percent lower than patients not enrolled in this program.[18]

The Geisinger Medical Home operates in Pennsylvania and offers round-the-clock access to primary and specialty care services for 2.5 million patients who are, on average, poorer, older, and sicker than patients nationally.[19] This medical home model provides nurse care coordinators, care management support, and home-based monitoring. Electronic health records aid physicians and patients in more efficient delivery of care. To encourage participation in the program, Geisinger provides monthly payments of $1,800 per physician and stipends of $5,000 per 1,000 Medicare patients to finance additional staff. An incentive pool is created based on differences between the expected and actual total cost of care for medical home enrollees. Incentive payments are conditional upon meeting certain quality indicators.

Despite the increased payments to physicians, preliminary data show 7 percent savings in total medical costs, in part due to a 20 percent reduction in hospital admissions and 29 percent reduction in emergency department visits.[20] Participants in the case management program for patients hospitalized for heart failure had 32 percent fewer readmissions than those not in the program and 84 percent of patients in the program achieve stable or improved functional capacity.

Colorado's Medicaid and Children's Health Insurance program boasts a medical home that targets low-income children enrolled in Medicaid and CHIP.[21] To qualify as medical homes, primary care practices must have 24/7 access, open-access systems or similar convenient scheduling of appointments, and provide care coordination. This enables practices to be eligible for bonus payments. In March of 2009, this program encompassed 150,000 children who were enrolled in 97 community-based practices with 310 physicians.

Better coordination and improved availability of primary care providers improved the rate of well-child checkups to 72 percent of children in medical home practices compared with only 27 percent of children in non-medical home practices. Despite the increase in well-child visits, the median annual cost for children enrolled in the Colorado Medical Home was significantly less than children in other practices ($785 compared with $1000), due to reductions in emergency room visits and hospitalizations. Among children in Denver with chronic conditions, median costs were $2,275 for children enrolled in the medical home compared to $3,404 for those not involved with a medical home practice.

"Having a Guided Care nurse took a burden off us. Any time we called our nurse with questions, she handled the situation professionally and was able to either resolve the problem or point us in the correct direction. This made our experience with the health care system more satisfying for us and more efficient for the system overall. Having a Guided Care nurse saved us time and energy and gave us peace of mind."

—*Karen Kleiner, about her mother Dolores Smyth's participation in the Guided Care pilot study*

http://www.emaxhealth.com/28/2513.html

The North Carolina Medicaid Community Care Model[22] is another type of medical home. The North Carolina model, first implemented in 1998, is comprised of 14 community health networks that encompass more than 1,380 practices and 970,558 Medicaid enrollees across the state. It is community based rather than set within a specific doctor's office and the approach is more of a "virtual" medical home rather than a specific primary care practice or group of practices.

Here, individual primary care providers choose to enroll in a larger network and agree to serve as patients' physician care managers and help patients obtain access to more specialized services. These networks are organized and operated by community physicians, hospitals, health departments, and departments of social services. In return, North Carolina's Medicaid program agrees to pay these health care providers a modest monthly fee in addition to the usual fee for service to ensure that they are available around the clock as a way to decrease unnecessary emergency room visits.

Data shows that patients receiving care in this model have much better outcomes. For patients with asthma, more than 90 percent receive appropriate preventive medication with a subsequent 40 percent reduction in hospitalizations for asthma and a 16 percent reduction in emergency room visits. For patients with diabetes, nearly everyone now receives a blood pressure check at each visit to their clinician (up 8 percent from before the program was implemented) and over three-quarters are tested for high cholesterol (up from 11 percent).

Total savings to the Medicaid program are calculated to be $135 million for low-income families and $400 million for the aged, blind, and disabled populations.[23] A second study estimated the asthma disease management program saved $3.5 million from fewer hospital overnight stays and emergency department visits in 2000-2002, and the diabetes disease management program saved $2.1 million over the same two-year period.[24]

Transitional care for better care when discharged from the hospital

The health services a patient receives when they are discharged from a hospital stay to either home or another health care setting are often referred to as transitional care. This type of care coordination includes a broad range of time-limited services designed to ensure care continuity, avoid preventable hospital readmissions and poorer health outcomes, and promote the safe and timely transfer of patients from one level of care to another, or from one health care setting to another.

The problem and the cost of potentially preventable hospital readmissions have garnered much recent attention. It is estimated that 20 percent of patients readmitted to the hospital within 30 days of discharge could have avoided this additional hospital stay with better

management.[25] This "churning" costs American taxpayers $15 billion annually in Medicare spending and costs businesses $34 billion each year due to employees' need to care for loved ones who are discharged home without needed transitional care.[26]

There are a few well-tested models that demonstrate having a health professional (usually a nurse) meet the patient in the hospital and coordinate care across all settings including hospital, postacute and rehabilitative care, and the patient's primary health care provider, can significantly decrease avoidable hospital readmission.

Successful examples

The Transitional Care model at the University of Pennsylvania improves the postdischarge outcomes for high-risk, high-cost elderly patients. Advanced practice nurses, or APNs, are responsible for providing comprehensive in-hospital planning, coordinating discharge planning, and providing appropriate home care follow-up. The APN follows patients from the hospital into their homes and provides services designed to streamline plans of care, interrupt patterns of frequent acute hospital and emergency department use, and prevent health status decline. Family caregivers are given help to implement the patient's care plan. While the Transitional Care model is nurse led, it is a multidisciplinary model that includes physicians, nurses, social workers, discharge planners, pharmacists, and other members of the health care team.

Patients who participated in the program had fewer hospital readmissions for both primary and co-existing health conditions, improvements in health outcomes, and enhancement in patient satisfaction, which resulted in lower Medicare costs.[27] The mean total cost for patients in a transitional care model over 12 months was 39 percent lower than control patients ($7,636 compared to $12,481).

Similarly, the Project RED (for Re-Engineered Discharge) program at Boston University develops and tests strategies to improve the hospital discharge process in an effort to promote safety and curtail readmission rates. It is based on 11 components that have been shown to reduce readmissions and have high rates of patient satisfaction. The 11 components are:

- Educate the patient about his or her diagnosis through the hospital stay
- Make appointments for clinician follow-up and postdischarge testing
- Discuss with the patient any tests or studies that have been completed in the hospital and discuss who will be responsible for following up with the results
- Organize postdischarge services
- Confirm medication plan
- Reconcile the discharge plan with national guidelines and critical pathways
- Review the appropriate steps for what to do if a problem arises

"I have fallen in love with TCM. Not only do I feel like I have made a difference in the lives of my patients, but TCM has made a difference in my career. There's a tremendous autonomy in practice and respect from physicians and other health care providers. In this role, I can apply the skills and expertise I have. TCM allows me to communicate, collaborate, and cooperate with other members of the health care team for the benefit of my patients. The model just makes sense."

—*Ellen McPartland, MSN, RN, Advanced Practice Nurse*

http://www.transitionalcare.info/

"It provides [me with] information on how to deal with the health care system; someone to...speak for you. When you are sick you don't have the energy to advocate for yourself."

—*Patient in Richmond, VA*

http://www.transitionalcare.info/PatiWhoB-1798.html

- Expedite transmission of the discharge resume (summary) to the physicians accepting responsibility for the patient's care after discharge
- Assess the degree of understanding of patients by asking them to explain in their own words the details of the plan
- Give the patient a written discharge plan at the time of discharge
- Provide telephone reinforcement of the discharge plan and problem solving 2 to 3 days after discharge

Patients in the Project RED group are one-third less likely to be readmitted to the hospital or visit the emergency department following discharge. Nearly all the patients (91 percent) leave the hospital with a follow-up appointment with their primary care physician compared to just 35 percent of non-Project RED patients. Data show that the control group experienced significantly higher emergency room costs ($21,389 for control versus $11,285 for Project RED participants) and readmission costs ($412,544 versus $268,942) within 30 days of discharge. Participants had overall lower costs of $412 on average per person; accounting for nursing time, the estimated total cost saving was about $380 per patient.[28]

Bundled care means better coordinated care

The current health care delivery system is not organized around the care needs of patients, which are rarely delivered in an isolated episode. Existing payment systems reward providers for delivering more individually paid for services rather than better care. Bundled-care payments pay for entire treatment needs or cycles of care, which may span multiple providers and settings. For instance, the expected costs of care for a chronic disease such as diabetes could be calculated and used as the basis for a bundled payment to the provider managing the patient's diabetes, who would then apportion those payments to others involved in the patient's care. It is a particularly effective form of payment for the care delivered around an acute hospital episode and the postacute or rehabilitation period.

Successful examples

ProvenCare is model of care operated by Geisinger Health System in Pennsylvania. This program started as a bundled payment structure for coronary artery bypass grafting, one of the most common surgeries performed and now also covers hip replacement and cataract surgery. ProvenCare devised what has been referred to as a "warranty" that involves a so-called global fee that covers the surgery and any additional work related to complications from the initial procedure for three months afterwards.[29]

Care is charged on a "per episode" basis, which includes work-up, hospital and professional fees, routine discharge rate, and management of related complications up to 90 days after surgery. By including this 90-day "guarantee" on surgery, Geisinger rewards providers

for better quality care. Geisinger relies on electronic health records to make these improvements possible. These policies also encourage payer-provider collaboration and greater organization of care.

By changing the reimbursement structure for the bypass surgery, Geisinger actually changed the way care was delivered. Not only did the costs come down, but the outcomes improved. ProvenCare increased the proportion of patients receiving all 40 required components for coronary artery bypass graft surgery and follow up from 59 percent to 100 percent. The percentage of patients discharged directly to home increased to 93 percent from 81 percent. In addition, 30-day hospital readmissions for these patients dropped by 44 percent.[30]

Another area of care that works well with a "bundled" payment system is pregnancy, birth, and antenatal care. One study done at a The Birth Place, a birthing Center in San Diego, provided care to pregnant women in a "collaborative care model."[31] The use of a variety of providers was possible because the practice was reimbursed for care for the total episode of pregnancy from when the women first sought prenatal care through six weeks postpartum.

Most of the prenatal care was provided by certified nurse midwives who worked with physicians and delivered outcomes that were as safe as the traditional physician-only model, but at a total cost per pregnancy that was 16 percent lower. This was mostly due to lower rates of Cesarean-sections and the need for epidural interventions. Nearly one in five women (19.1 percent of women in the traditional practice) received a C-section compared to 10 percent of the women seen at the birthing center. Interestingly, during the pregnancy, the women seen at the birthing center used 63 percent more services than those seen at traditional sites but this also resulted in 9 percent fewer women seeking care in hospital emergency departments.

The episode-based reimbursement allowed a variety of providers to see the women based on when they the services were needed rather than being restricted to the traditional fee-for-service model. Although there were more health services delivered, this ultimately lead to less expensive care over the entire period of care.

Accountable care organizations provide more integrated care

An Accountable Care Organization is a relatively new concept of health care delivery that is largely driven by changing how care is delivered and paid for. An ACO holds providers responsible for delivering comprehensive care to a certain group of patients, and considers the quality and cost of the care delivered and assumes full financial responsibility for that care. The goal is to create an incentive for the ACO to constrain volume growth while improving the quality of care.

"That's part of the reason the federal government is interested. You got patients doing better, the hospitals have made more money, the health plan spent less money, and the providers—the nurses, the docs, the physicians assistants—have this pride and reward of knowing we're more effective. What we're doing is working better."

—Dr. Alfred Casale, Surgical Director at Geisinger Wyoming Valley Medical Center

http://thedailyreview.com/news/geisinger-becomes-national-model-for-better-health-care-1.160872

ACOs that achieve quality and cost targets receive a financial bonus. Financial penalties may also be incurred if targets are not met.[32] A typical ACO would consist of primary care clinicians, specialists, and hospitals. An ACO needs to be able to care for patients across the continuum of care in different institutional settings, plan prospectively for its budgets and resource needs, and support comprehensive, valid, and reliable measurement of its performance.[33]

This model is well aligned with many existing reforms, such as the medical home model and bundled payments, and also offers additional support (and accountability) to the provider organization to enable them to deliver more efficient, coordinated care. While the medical home model is centered around a single practice, ACOs are larger and more comprehensive, housing many practices within one organizing entity. ACOs allow great flexibility for providers in both the types of organizations that can serve as an ACO and the methods by which providers are to be paid. This flexibility allows for the development of ACO organizational models and payment approaches that match the nature and needs of the local community.

Successful examples

For the past eight years, the Camden Coalition of Healthcare Providers project has operated in Camden, New Jersey.[34] CCHP is a citywide organization whose activities focus on community outreach, care management of high-needs patients, health care provider education, practice management capacity building, data collection and evaluation, and coalition-building among key stakeholders. CCHP consists of a multidisciplinary outreach team to provide care management to the highest users of Camden emergency departments and hospitals. This team includes a nurse practitioner, a bilingual medical assistant, and a social work case manager who conduct visits to homes, housing shelters, and even the streets to coordinate care in a patient-centered approach.

The project provides transitional primary care, helps patients apply for Medicaid or other government sponsored benefits programs, coordinates specialty care, coordinates transportation, helps patients access medical day programs and other social services, and provides emotional support. Evaluation after one year of operation indicated that patient utilization of ERs and hospitals decreased by 40 percent after enrolling with the project and health systems charges for the care of these high-utilizing patients was reduced by 56 percent.[35]

How health care reform will further innovation

The new models of health care highlighted in this paper, and innumerable others that also exist, will need a concerted change in health care policy and priorities if they are to bring forth the expected benefits to health care funders, providers, and patients nationwide. Key elements of the health care reform bill now under consideration by Congress would ensure this happens. Let's consider the various elements in the legislation.

Center for Innovation

One of the most important provisions included in the current health care reform legislation is the creation of a new center within the Department of Health and Human Services' Centers for Medicare and Medicaid Services, or CMS—a center that will focus on service delivery and payment innovation. This is a clear sign that Congress believes CMS, the funder of both Medicare and Medicaid that together constitute almost 50 percent of national spending on health care,[36] needs to have the flexibility to develop, implement, evaluate, and expand new payment models for services outside the traditional fee-for-service model. Currently, the only way this innovation can be undertaken is through legislation or a waiver process that would specifically allow a new pilot or demonstration project.

The health care reform legislation would give broad authority and funding to the Center for Innovation to determine what models will be tested, in what groups of patients, and for how long—with a preference for models that reduce program costs while preserving or enhancing quality. To ensure the focus is not only on cost-cutting measures, there is a requirement for providers to report on patient-outcome measures. There is also language that prioritizes models that work with private payers in addition to Medicaid and Medicare.

A provision in the legislation allows the HHS secretary (in consultation with CMS) to expand the duration and scope of successful models and to terminate or modify models that do not work effectively. This means that when a hospital or group of health care providers changes their practice to accommodate a new payment method, and it is demonstrated to be successful, they will not need a subsequent congressional vote to continue or expand the initial project, which also means the most promising practices can be scaled up across the nation.

"This is an area where if I sat down with [Senator] Tom Coburn I suspect we could agree on 95 percent of the things that have to be done. Because the things you talk about in terms of…reducing medical errors, in terms of incentivizing doctors to co-ordinate better and work in groups better, in terms of price transparency, improving prevention—those are all things that not only do I embrace but we've included every single one of those ideas in these bills."

—*President Barack Obama, Bipartisan health care summit, February 25, 2010*

http://www.whitehouse.gov/health-care-meeting/bipartisan-meeting

The Center for Innovation will serve as a place where innovative ideas are developed, tested, and translated into large-scale projects. It will serve as a communications center nationally and internationally on best practice in reforms that help health care providers to deliver care in a cost-effective manner while maintaining their patients' health, and it will enable policymakers and lawmakers assess the returns made on the taxpayers' dollars invested in health care.

Hospital-acquired conditions

The health care reform legislation includes provisions to limit payment for services that result in a condition acquired while hospitalized and include a penalty for certain high-cost and common conditions that are acquired as a result of the hospitalizations. There is also language that would explore the same penalties for other providers participating in Medicare, including nursing homes, inpatient rehabilitation facilities, long-term care hospitals, outpatient hospital departments, ambulatory surgical centers, and health clinics. These provisions will encourage hospitals and health care providers to implement the kind of checklisted-based systems to prevent medical errors and introduce electronic-based drug prescription systems to prevent prescription errors.

Medical homes and primary care

There are numerous provisions in the health care legislation moving through Congress that will foster the development, implementation, and continuation of medical homes, especially for the chronically ill. For example, the legislation provides increased reimbursement for primary care providers and some additional funds to start and expand new medical homes. In this way, the legislation will help jumpstart the expansion of medical homes to deliver coordinated quality health care at lower costs to more and more Americans nationwide.

Transition care

The health care reform legislation includes provisions that focus on improved quality of care and patient outcomes around a hospital admission. It includes proposals to reimburse care management activities performed by nurse-care managers for patients with chronic diseases as they are discharged from the hospital in an attempt to diminish potentially preventable readmissions.

Bundling

The health care reform legislation provides for a number of pilot programs. For instance, bundled payments would be made to a Medicare provider or another entity composed

of multiple providers to cover the costs of acute-care inpatient and outpatient hospital services, physician services, and postacute care over a defined period of time for a range of defined conditions.

Accountable Care Organizations

The health care reform legislation includes provisions to promote the development of ACOs. By design, there are few details beyond general requirements written into the legislation. Medical practices must agree to be accountable for the overall care of their Medicare beneficiaries, have adequate participation of primary care providers, define processes to promote evidence-based medicine, report on quality and costs, and coordinate care.

By allowing this flexibility without stringent requirements, there is hope that different types of health practices can participate and should encourage the integration of larger health centers with smaller health care practices. In addition to flexibility in structure, there is also flexibility in payment to encourage multiple payment approaches that promote coordination so that health care practices with different levels of capability could begin accepting as much accountability as possible.

Electronic health records

Improved use of electronic health records is an integral element in almost all these models. For example, effective coordination requires improved communication and shared information. The data required to measure patient outcomes and ultimately evaluate the success of these models will also foster the development of better and more integrated health information technology systems. Congress and the Obama administration realized the importance of this and made an early investment in health IT by committing $20 billion in the American Reinvestment and Recovery Act of 2009.

Necessary elements in new models of health care delivery

Ultimately, each of these models of care will work because they use tried and true elements of care that have demonstrated better health outcomes at lower costs. The following elements of care have been examined, implemented, and tested for years but, in many cases, have been difficult to put into practice because of existing payment structures or other disincentives that have not rewarded a focus on prevention, primary care, and coordination between providers. Here's what would change if we enact health care reform to ensure these quality care models of health care spread across the country.

An increased focus on prevention

The U.S. health care system is in fact primarily an illness-care system, with 95 percent of health care costs going to treat health problems after they have occurred. Seventy-five percent of health care costs in America are attributable to chronic conditions, many of which are preventable. Yet only 2 percent to 3 percent of the U.S. government's health care budget is invested in prevention, a percentage unchanged since 1934.[37]

Preventable risk factors for chronic disease include smoking, poor diet, lack of physical activity, and alcohol use. Together, these account for approximately 38 percent of all deaths in the United States yet one in five Americans continue to smoke and nearly two out of three American adults are obese or overweight. Preventive measures can deliver substantial health benefits relative to their net costs – some are cost saving and others are cost effective.[38]

The failure to adequately address chronic disease risk factors not only limits progress toward achieving health for all Americans, but also jeopardizes the nation's economic security.

Improved quality

A recent analysis from the Urban Institute looked at how the quality of U.S. health care compares internationally to answer the question:[39] Does America really have the best health care in the world? For some aspects of care we do. If someone becomes very sick and needs the latest, cutting-edge treatments, the United States is probably the best place to receive care.

> "We are not in a business where we should have to be accepting this choice that we're either going to have to cut the care we give or we're going to have to accept higher bills. There's a third way of doing it, which is: redesigning the care where we do the things people want that are effective and which cost less than doing it wrong."
>
> —*Dr. Stephen Jencks, Senior Fellow at the Institute for Healthcare Improvement, Cambridge MA.*
>
> http://www.npr.org/templates/story/story.php?storyId=111098800

Yet this is not the kind of care most of us will ever need. The researchers find that U.S. health care is not pre-eminent in quality. They argue that reform, specifically strengthening incentives to apply knowledge and meet quality standards, employing technology to reduce errors and ensure appropriate care, and helping consumers and patients to demand better quality, is needed to improve the health care system's relative performance. The quality deficit in health care is costly in terms of lives and dollars:

Only about half of patients receive the recommended care,[40] and one-third or more of all treatments and procedures performed have no proven benefits.[41] Unnecessary care accounts for $250 billion to $325 billion in annual health costs.[42]

Only 40 percent of doctors wash their hands after patient contact, a key factor in hospital-related infections that kill 90,000 patients each year.[43]

From 2004 through 2006, patient safety errors resulted in 238,337 potentially preventable deaths of Medicare patients and cost the Medicare program $8.8 billion.[44]

Research has documented tremendous variation in hospital inpatient lengths of stay, visits to specialists, procedures and testing, and costs—not only by different geographic areas of the country but also from hospital to hospital in the same town. Spending more does not ensure better health care; those areas of the country with the highest costs and highest volume of services generally have the poorest health outcomes and lower-patient satisfaction.[45]

Strategies to reduce these deficits in care are an essential part of health care reform.

Better coordination of care

Coordination of care refers to policies that help create care that is more organized both within and across care settings and over time. Broadly speaking, it means making health care systems more attentive to the needs of individual patients and ensuring they get the appropriate care for acute episodes as well as care aimed at stabilizing their health over long periods. This helps keep them out of the hospital. These issues are particularly beneficial patients with chronic conditions and the elderly who may find it difficult to 'navigate' fragmented health care systems.

Better care coordination can improve patient satisfaction with their care, and result in better patient outcomes. Where care coordination leads to more appropriate care (for example, through fewer medical errors, more appropriate medication and less rehospitalization); cost efficiency and cost effectiveness will also be enhanced.

Lack of care coordination—such as inefficient communication between providers and lack of access to medical records when specialists intervene—leads to duplication of tests and inappropriate treatments that cost $25 billion to $50 billion annually. The National

Academy of Sciences' Institute of Medicine explicitly states that care coordination is needed to improve the quality of health care in the United States.[46]

Multidisciplinary care teams

Multidisciplinary care is a team approach to the provision of health care by all relevant medical and allied health disciplines. It recognizes that increasingly the care people with chronic conditions need does not just involve doctors and nurses but mental health professionals and a broader range of allied health professionals.[47]

This approach is about delivering holistic health care that is far beyond merely disease and treatment. With a diverse group of healthcare professionals, such as physicians, nurses, pharmacists, dieticians, and health educators, social service and mental health providers, there is more certainty that all of the needs of the patient will be met. The most important member of the multidisciplinary team is the patient who is at the center of the team.

Multidisciplinary teams convey many benefits to both patients and the health professionals working on the team, benefits such as improved health outcomes and enhanced satisfaction for patients, the more efficient use of resources, and enhanced job satisfaction for team members.

Electronic health records

A survey last year found that only 1.5 percent of U.S. hospitals have comprehensive electronic records systems,[48] only 8 percent have basic systems that cover at least one clinical unit, and only 17 percent of doctors currently use computerized record-keeping systems. While almost every important financial transaction we do is recorded online, our medical records are stuck in the 19th century.

Electronic health records have the potential to transform health care, improving quality and reducing costs by reducing duplication and waste that costs hundreds of billions of dollars and the medical errors that cost tens of thousands of lives each year. To achieve these goals, health IT will need to move to ensure "meaningful use" of electronic health records in areas such as electronic prescribing, electronic exchange of health information, and reporting of clinical quality measures. Total savings could range up to $100 billion over the next 10 years,[49] and early government estimates show about 212,000 skilled jobs could be created from this program.

Rewarding better patient outcomes, not more services

Instead of paying the same amount every time a hospital or physician does a procedure—a practice that encourages more procedures—funders should pay for value with an agreed measure that would combine patient outcomes, quality and safety, service, and total costs over time. Research shows that even after taking into account race, poverty, and health factors, more than 70 percent of the differences in spending between high-spending places and low-spending places could not be explained away by the claim that patients were poorer and sicker. Instead, it came down to more hospitalizations, more doctor visits, and more diagnostic tests.[50]

Health care providers want to provide high-quality, cost-effective patient care, but the fee-for-service payment system discourages hospitals and health professionals from working together to enhance preventive care, better manage chronic diseases, reduce readmissions, and improve efficiency. We need a payment system focused around better health, not just more care.

The patient as partner in their health care

Consumers and patients face considerable challenges in becoming actively involved in their health care. They are expected to undertake a sweeping array of health care tasks, from comparing coverage options when selecting health plans to finding competent doctors and safe hospitals to choosing effective treatments and managing their chronic conditions. When faced with the need to make an important decision, consumers may not know where to turn for help or may find misinformation, rather than useful guidance. Sometimes the choices are simply too complex for them to make on their own.

Too often, patients are placed at risk for unsafe care or therapeutic goals that cannot be realized because important health care information is communicated using medical jargon and unclear language. The communications gap between patients and care providers involves literacy, language, and culture. Multiple steps need to be taken to close this gap. Failure to provide patients with information about their care in ways that they can understand will continue to undermine other effort to improve patient safety.[51] Patients also need substantial and ongoing help with changing behaviors that put them at increased risk for illness.

Conclusion

The enactment of health care reform will mean the coordinated, quality health care services that are so beneficial to Doris are affordable and available to many Americans. It will mean that Doris's daughter, a single mother who is a breast cancer survivor, will finally be able to get health insurance coverage. And Doris's son, who has avoided the doctor for years because of the cost, will finally get the health checkup he needs and advice about a healthier lifestyle that means he won't develop diabetes like Doris.

The real legacy of health care reform, however, is for Doris's grandchildren and the grand-kids of all Americans. When the progressive health care delivery systems examined in this paper are widely available across our nation, our grandchildren will have the opportunity to grow up healthy and fit—secure in the knowledge that they and all Americans have equitable and affordable access to the quality health care they need at a lower cost to them and American taxpayers in the 21st century.

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