OUR CHANGING HEALTH CARE SYSTEM
SINCE THE INCEPTION OF THE AFFORDABLE CARE ACT:
A COLLECTION OF ARTICLES AND PRIMERS FROM
THE AMERICAN COLLEGE OF SURGEONS
<table>
<thead>
<tr>
<th>Page</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>04</td>
<td>INTRODUCTION BY DAVID B. HOYT, MD, FACS</td>
</tr>
<tr>
<td>05</td>
<td>HEALTH CARE REFORM LEADING TO AND INCLUDING PASSAGE OF THE AFFORDABLE CARE ACT</td>
</tr>
<tr>
<td>31</td>
<td>PHYSICIAN PAYMENT REFORM: NEW MODELS EMERGING</td>
</tr>
<tr>
<td>89</td>
<td>NEW SYSTEMS OF CARE</td>
</tr>
<tr>
<td>113</td>
<td>LIABILITY REFORM</td>
</tr>
<tr>
<td>171</td>
<td>INCENTIVE PROGRAMS</td>
</tr>
<tr>
<td>181</td>
<td>ELECTRONIC HEALTH RECORDS</td>
</tr>
<tr>
<td>203</td>
<td>QUALITY MEASURES AND PUBLIC REPORTING</td>
</tr>
<tr>
<td>223</td>
<td>WORKFORCE SHORTAGES</td>
</tr>
<tr>
<td>251</td>
<td>GRADUATE MEDICAL EDUCATION</td>
</tr>
</tbody>
</table>
When President Barack Obama signed the Affordable Care Act (ACA) into law on March 23, 2010, it heralded the beginning of a new era in health care delivery. It was a hard-fought battle to enact the ACA, with policymakers, physicians, and patients alike lining up to strongly support or denounce the legislation. However, when the U.S. Supreme Court upheld the Act in June 2012, the ACA appeared to have survived even the most vehement challenges.

As your professional society, the American College of Surgeons takes very seriously our responsibility to ensure that you fully understand the breadth of the legislative and regulatory health care landscape, advocate on your behalf, and keep you regularly informed about how changes in laws and policies are likely to affect the practice of surgery. This responsibility assumed heightened importance during the days leading up to the enactment of the ACA and for the past several years as implementation has progressed.

Regardless of whether you believe that the ACA is the right solution for the challenges facing our nation’s health care system or believe it will fail, you will likely concur that the ACA is complex. The ACS Division of Advocacy and Health Policy staff in our Washington, DC, office can attest to this fact and have spent hundreds upon hundreds of hours poring over the Act and ferreting out those sections that will affect the surgical community. Their efforts have been led and complemented by those of the ACS Health Policy and Advocacy Group (HPAG), which oversees the College’s efforts to advocate in DC and at the state level on behalf of our members.

The ACA, however, is not the only issue on the radar of HPAG and the DC office. Liability reform, workforce issues, and evidence-based quality improvement, to name a few, are also front and center. Some of these issues are indeed affected by the Act, but others stand apart.

In the pages that follow, you will find a collection of Bulletin articles, as well as two single subject primers—one on the employed physician and the other on bundled payment. This digest provides a retrospective and, to some extent, a prospective look at the changing health care landscape. The articles frame the salient issues for surgeons over the past four years; provide insight into how ACS has addressed them on your behalf; explore viable solutions—either legislative, regulatory or, in some cases, solutions for surgeon consideration; and where possible, forecast the future. We have organized the collection by subject area to facilitate your ability to quickly locate the information you need.

The articles and primers reflect a team effort that included both surgeon leaders and ACS staff. In particular, I would like to recognize the contributions of Andrew Warshaw, MD, FACS, HPAG Chair, and Christian Shalgian, Director, ACS Division of Advocacy and Health Policy. It has been their leadership that has helped the College navigate the often murky waters of our health care system and enabled us to provide you with regular, informative material on the issues of the day.

David B. Hoyt, MD, FACS

ACS Executive Director
Health Care Reform Efforts Leading to and Including Passage of the Affordable Care Act
The modern history of U.S. health care reform:

A primer for practicing surgeons, residents, and associate fellows

by Carlos M. Mery, MD, MPH;
Amy Liepert, MD;
and David T. Cooke, MD

It is clear that the current U.S. health care system is in need of reform. According to the Council of Economic Advisors, by 2040, health care expenditures will be 34 percent of the gross domestic product (GDP), with Medicare and Medicaid spending nearly 15 percent of the GDP. In addition, nearly 54 million Americans who would not qualify for Medicare will be uninsured. However, throughout our country’s history, there have been multiple attempts to restructure our health care system. Nearly 100 years ago, President Theodore Roosevelt and his Progressive Party unsuccessfully lobbied for national health insurance. Since Roosevelt’s presidential run in 1912, our nation has seen the enactment of the Medicare and Medicaid programs signed into law by President Lyndon B. Johnson on July 30, 1965, followed by a series of health care reform “near misses.” This multi-part article chronicles the development of Medicare and Medicaid, highlights some of the near misses in health care reform since enactment of that legislation, and outlines the timeline of the current health care debate.

The Medicare and Medicaid programs
by Carlos M. Mery, MD, MPH

Medicare is a federally sponsored health insurance program that covers the medical needs of Americans 65 years or older, those under 65 years of age with certain disabilities, and those
with end-stage renal disease. The program consists of four parts. Part A (hospital insurance) is provided to all eligible individuals premium-free, and provides coverage for inpatient care, skilled nursing facilities, hospice care, and some home health services. Part B (supplementary medical insurance) is a voluntary program in which eligible individuals pay a monthly premium in exchange for coverage of physician fees, outpatient services, and other costs not covered by Part A. Part C, the Medicare+Choice program (now called Medicare Advantage), was added to Medicare in 1997 to allow beneficiaries to receive their benefits from private health insurance plans that include at least the current benefit package offered by Parts A and B. Part D, signed into law in 2003, is the prescription drug benefit plan for Medicare beneficiaries, and is administered by private companies with oversight by the Centers for Medicare & Medicaid Services.

Medicaid is a program jointly funded by the federal and state governments to assist states in providing medical assistance to people with low income. Each state decides the eligibility criteria, the type of services to provide, the rate of payment, and the administration of the program.

The Medicare and Medicaid programs have their developmental roots in the health insurance programs introduced by Germany in 1883 and Great Britain in 1911. From 1912 to 1920, the American Association of Labor Legislation, a private multidisciplinary reform organization, initiated a movement to try to enact “sickness insurance” in the U.S. on a state-by-state basis. This insurance would include cash compensation and coverage of medical bills for sick workers. Despite initial support for the initiative in several states, by 1920 the measure was defeated in every state in which it was raised. The defeat was mainly due to the political climate; the resistance of states to undertake what, at the time, were perceived as costly social measures; and a lack of endorsement from the American Medical Association (AMA).

Several studies published during the 1920s and 1930s highlighted the high costs of medical care and the need for medical insurance by the states. This led to an attempt by President Franklin D. Roosevelt to incorporate a national health care provision as part of the 1935 Social Security Law. However, the measure failed again.

The discussion over the issue of health care insurance continued over the next decade, to no avail. In 1945, President Harry S. Truman strongly endorsed the creation of a federally based national health insurance program. The result of this endorsement, the Wagner-Murray-Dingell bill, was debated, and eventually failed, secondary to opposition from multiple sources, including a difficult political post-war climate and the growing influence of private insurance companies.

In the 1950s, in an effort to gain more support, health reformers limited the idea of national health insurance to elderly individuals, as they represented a high risk for private insurance companies. As a significant compromise, the Kerr-Mills bill was passed in 1960, creating the Medical Assistance for the Aged program. According to this program, the federal government would give matching funds to the states in order to provide medical assistance to those elderly deemed in need by each state. However, after more than three years, only 32 of the 50 states had created Kerr-Mills programs.

The Kerr-Mills bill was insufficient to provide complete health care for the elderly. In 1961, President Kennedy endorsed the creation of a Medicare bill proposing coverage of hospital costs for the elderly. However, given the presence of a mild recession and the lack of support by Congress, he decided to postpone the introduction of the bill. In 1964, after Kennedy’s assassination, President Johnson made health care reform a priority. By then, the issue of national health insurance had gained public support, due to sharp decreases in personal income and greatly increased medical needs of the elderly.

After much debate, three alternative options emerged:

1. Medicare, proposed by the Administration, would be a government-funded program similar to the private insurance programs, providing coverage for hospital costs of the elderly.
2. The AMA-proposed “Eldercare,” an expansion of the Kerr-Mills state-run program, including drug coverage.
3. A third proposal, by Rep. John Byrnes (R-WI), was the creation of a voluntary health insurance program that would cover medical and
hospital costs, funded in part by the beneficiaries and in part by the government.

The AMA proposal was eliminated, and a bill was drafted incorporating both the Medicare provisions (Part A) and Byrnes’ proposal (Part B). In July 1965, the bill was passed in both chambers and was signed into law as Titles XVIII (Medicare) and XIX (Medicaid) of the Social Security Act.

Since its creation, Medicare has expanded to cover a greater portion of the population. In 1972, Medicare eligibility was extended to include individuals younger than 65 years of age with long-term disabilities and any individuals with end-stage renal disease.

In 1983, in an attempt to limit hospital medical costs, Medicare introduced the prospective payment system based on diagnosis related groups (DRGs). Under this system, a fixed amount is paid to the hospital for each patient stay based on a particular DRG, regardless of the actual amount of money spent. The hospital therefore absorbs the loss or makes a profit.

Similarly, since 1992, physicians are paid based on relative value units assigned for each procedure or intervention. In 1998, Medicare introduced the controversial sustainable growth rate formula (SGR) in an attempt to control costs. The SGR sets a target of expenditures on physician payments each year based on the GDP. If the actual spending surpasses the spending target for that year, reimbursement rates are decreased. Actual spending has surpassed the spending target every year since 2002, prompting cuts to physician reimbursement every year. As a result of pressure from theAMA and other medical organizations, including the American College of Surgeons, Congress has postponed these cuts every year. Recently, a bill was passed by the House of Representatives to eliminate the accumulated SGR debt and create a better system for physician reimbursement, but similar language failed to pass the Senate.

Near-misses
by Amy Liepert, MD

Although the enactment of the Medicare and Medicaid programs is the most tangible result of health care reform in this country, there are other notable attempts and near-misses that have occurred since the Johnson administration.

One such attempt was the Comprehensive Health Insurance Act (CHIP). CHIP was introduced to Congress and the American public on February 6, 1974, by President Richard Nixon during his presidential address. The need for a national health insurance act, at that time, was based on data that showed 25 million uninsured Americans, and health care costs that had increased 20 percent over the previous two-and-a-half years.

CHIP included three major programs: employee health insurance, assisted health insurance, and improved Medicare. The proposal was to make one of these three plans available to every American, but also to maintain voluntary participation. The employee health insurance program was designed to build on existing employer-sponsored plans, with government subsidies to help the self-employed and small businesses. This portion of the plan was designed to build upon a cost structure shared by employers and employees—which is often considered the historical design of health care in the U.S. The assisted health insurance program was designed for low-income earners who were not eligible to participate in the other two programs. Costs for this portion of the plan were split between federal and state funding. The improved Medicare portion of the plan was to be built on the existing Medicare system for people aged 65 and older, but would include additional benefits.

CHIP was designed to provide identical benefits to every American, without any exclusion. In addition, it was designed to include coverage for mental illness, alcoholism, drug addiction, nursing home care, and home health services. Children’s services were to be covered, including preventive care up to age 6, as well as eye and hearing exams, and dental care up to age 13.

The design of the program was such that yearly costs per family were limited. Per-family maximum out-of-pocket expenses were not to exceed $1,500, and would be adjusted down for lower-income families. The improved Medicare program had an annual maximum amount of $750. The costs projected by the General Accounting Office were $6.9 billion, plus additional costs during the transitional period to be divided between the federal and state governments, and were in addition to the costs of existing programs. On an individual level, the employee health insurance program was estimated to cost each individual employee...
$150 per year and each employer $450 per year per employee.

The progression of this bill moved at a positive rate through Congress; however, it could not overcome the political debacle of the Watergate scandal. By the time Gerald Ford was elected President, the economy was facing another potential recession, and the political climate was unfavorable for a large piece of social legislation such as this.

In the mid-1980s, a modification to health care came in the form of the Consolidated Omnibus Reconciliation Act (COBRA) of 1985. This law, signed by President Ronald Reagan on April 7, 1986, focused on Americans who lost their insurance due to separation from employment.

A requirement was included in this large bill for insurance eligibility to continue for 18 months after separation from employment. Pre-existing conditions were covered without waiting periods, and the new insurance plan was required to provide comparable benefits to the previous plan. The premium was to be paid in full by the employee, and lack of payment resulted in immediate cancellation. An additional requirement mandated that any premium adjustments applicable to the previous employer would also apply to the individual. Extension to the 18-month limit was granted only for disability or multiple events. After the term of COBRA coverage, the enrollee must either be covered by another employer or purchase his or her own personal policy.

This piece of legislation was designed as a bridge, providing insurance for those in between jobs. However, COBRA still left certain groups of people at risk for not receiving insurance coverage, including people working at a small business with fewer than 20 employees, people who lost their employment and for whom new employment was not available within 18 months, or individuals who could not pay for private insurance after job loss.

While these gaps are widely criticized, the design of the bill was to provide an option for employees and their families in the circumstances of job loss, death, disability, or other major life event.

A decade after the COBRA legislation was enacted, President Bill Clinton’s Administration attempted health care reform in the form of the Health Security Act of 1993. The Health Security Act would have used a complex system to develop universal health care by using private insurer competition, mandates for employers as well as individuals, and by requiring heavy government oversight and regulation. Central to its structure was that the federal government would provide oversight of national standards for cost, quality, and benefits. A major component of this oversight was through the creation of a National Health Board.

The states were to organize their own regional alliances, in order to provide universal coverage.

Three cost-sharing options were built into the Health Security Act. The first option—the low cost sharing option—was equated to a health maintenance organization-type system, in which users would be required to pay a small co-pay for outpatient care. The higher cost sharing option was equated to a fee-for-service system, in which an individual would pay a $200 annual deductible and co-insurance up to $1,500; families would have an annual $400 deductible with a maximum of $3,000 out-of-pocket expenses. The third option was the combination cost sharing option, which was equated to a preferred provider organization. As part of this plan, a $10 co-pay would be necessary for in-network visits, along with a 20 percent co-insurance for any out-of-network service.

Under the proposed Clinton plan, each American would have been issued a health security card and would have been allowed to choose their own insurance from their local alliance or corporate alliance. Supplemental insurance could be purchased by each member. This did remain an employer-based insurance plan, with each employer required to pay a major portion for all employees, with the payment adjusted based upon the employee’s work commitment. However, the adequate amount of votes were not garnered for the plan.

Where are we now, and how did we get here?

by David T. Cooke, MD

After the failure of the Health Security Act, major health care reform was essentially tabled until the 2008 presidential election, when both major party candidates ran with the promise of meaningful health care reform prominent in their platforms. In 2009, President Barack Obama submitted his 2010 budget to Congress. President Obama requested that Congress reserve $600 billion via changes in income tax deductions for health care reform initia-
atives over 10 years, and asked Congress to develop the specifics of health care reform legislation.

In June of that year, Democrats in the House submitted a bill that included a government-run insurance plan, or “public option,” with penalties on businesses that did not provide health insurance for their employees. Concurrently in the Senate, both the Senate Finance Committee and the Health, Education, Labor and Pension Committee prepared versions of these bills. On July 15, 2009, the Health Committee passed a bill that included a public option, with a requirement that employers with more than 25 workers would provide insurance coverage or pay an annual penalty fee to the government.

During his address to a joint session of Congress in September, President Obama increased estimates of 10-year costs for reform from $600 billion to $900 billion, expressed an interest in curbing the costly practice of defensive medicine, and reaffirmed his belief that health care in this country needs dramatic and lasting overhaul. Two days after President Obama’s address to Congress, several surgical organizations, including the American College of Surgeons, signed a letter addressed to Senate Majority Leader Harry Reid (D-NV) and the Speaker of the House Nancy Pelosi (D-CA), urging Congress to make medical liability reform a core component of any health care reform legislation.

In October, the Senate Finance Committee approved legislation backed by Sen. Max Baucus (D-MT). The Baucus Plan, per the Congressional Budget Office (CBO), would most likely diminish health care expenditures and reduce the federal budget. The plan would tax expensive premium or “Cadillac” health plans, and require businesses with 50 or more employees to reimburse the government for costs incurred by workers who purchase their own health insurance. The bill in its original form did not contain a public option. However, after the bill left committee, Senator Reid announced his intention for the bill to contain a public option, but it would also have a provision that would allow states to opt out of the public option.

On November 7, 2009, the U.S. House of Representatives passed its bill by a 220 to 215 vote. The concurrent House bill, containing a public option, would cover 36 million uninsured Americans and eliminate any policies excluding individuals with pre-existing conditions from insurance plans. According to the CBO, the House bill would drop deficits by $109 billion over the span of a decade.

During the month of December, debate within the Senate led to a modification of its bill’s public option. In a new proposal, individuals between the ages of 55 and 64 could buy in to Medicare, and the federal agency known as the Office of Personnel Management could negotiate with insurance companies to offer national health benefit plans. However, the proposal for Medicare expansion was eliminated after opposition from Sen. Joseph Lieberman (I-CT). On December 24, the Senate passed the health care bill by a party line vote of 60 to 39.

At first glance, the passage of the Senate bill appeared to be a historic vote, bringing the nation closer to the elusive holy grail of comprehensive health care reform. Debate continued concerning how the House and Senate bills could be reconciled. However, on January 19 of this year, Republican candidate Scott Brown won the special election in Massachusetts to fill the Senate seat made available by the demise of Sen. Edward M. Kennedy (D-MA). Senator Brown’s victory eliminated the 60-vote Democratic filibuster-proof majority. Senator Brown’s election, for a seat once held by Senator Kennedy, is ironic, as Senator Kennedy referred to comprehensive health care reform as the “cause of my life.”

The race to reform health care hit a yellow flag, as other national issues became more prominent, specifically, the economy and high unemployment rates. The yellow flag was changed to green when, on February 25, President Obama hosted a bipartisan health care summit at the Blair House, in Washington, DC. At that meeting, and during press conferences following the summit, an up or down, or “reconciliation,” vote on health care legislation was considered, which would require a simple majority vote, and avoid a potential partisan filibuster. On March 17, the CBO concluded that the health care reform legislation being considered would cost approximately $940 billion dollars over ten years, but would also reduce the deficit by $138 billion over the same time period. Four days after the release of the CBO’s report, the House passed, with a 219 to 212 vote, the Senate health reform bill, H.R. 3590—the Patient Protection and Affordable Care Act. On March 23, President Obama signed the bill into law in a packed ceremony in the East
Room of the White House, marking the enactment of the most significant social legislation since the Johnson Administration.

In conclusion, from Theodore Roosevelt, to the creation of Medicare and Medicaid, to multi-party attempts by Presidents Nixon and Clinton, modern health care reform has seen modest gains and numerous near misses. Now—although we have reached a monumental milestone—it is unclear if there is a final destination to the road to comprehensive health care reform. This article should read as a primer to help surgeons begin to understand the complicated history of health care reform in this country, and possibly spark interest in becoming an informed participant in the health care reform debate.

References


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HEALTH CARE REFORM BECOMES LAW—
with room for improvement

by Kristen Hedstrom,
Assistant Director, Legislative Affairs,
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Following more than a year of partisan
debate and numerous missed deadlines, health care reform became law
when President Barack Obama signed H.R. 3590, the Patient Protection and Af-
fordable Care Act (PPACA) on March 23, and the Health Care and Reconciliation Act
of 2010—which amended the PPACA—on
March 30. Throughout the development and
deliberations surrounding comprehensive
health care reform, the American College
of Surgeons was guided by a strong commit-
tment to four key principles that were drafted
by the Board of Governors and approved
by the Board of Regents. Those principles
include the promotion of quality and safety,
access to surgical care, medical liability re-
form, and the reduction of health care costs.

While committed to the passage of mean-
ingsulful health care reform, after a thorough
analysis and careful consideration, the Col-
lege felt that PPACA fell short of meeting
these four principles and, therefore, opposed
the legislation when it was considered in the
U.S. Senate in December 2009. The College
was deeply disappointed with the Senate’s
decision not to address several provisions
that we believe will have a negative effect
on surgical patients, and on the surgeon’s
ability to provide quality, efficient health
care, including the following:

• Creation of an independent Medicare
commission. This commission would
undermine efforts to provide transparency,
fairness, and stability in the health care de-

delivery system by leaving Medicare payment
policy decisions in the hands of an unelected,
unaccountable governmental body.

• Failure to permanently repeal the
flawed sustainable growth rate (SGR) for-

mula. The SGR formula threatens patient
access to surgical care, and does nothing
to address the pending 21.2 percent cut to
Medicare physician payments scheduled to
go into effect on April 1.

• Lack of meaningful medical liability
reforms. These reforms include protections
for physicians who follow established evidence-based practice guidelines or who are volunteering services in a disaster or emergency situation.

Despite the law’s significant shortcomings, throughout the year-and-a-half debate, the College did work extensively with key Congressional leaders to ensure that several provisions were included in the final legislation, prior to passage.

For several years, the ACS has advocated to Congress about the critical need to improve and support our nation’s trauma systems, and the College leadership was pleased to learn that the PPACA includes a significant number of trauma-related provisions, which authorized funding for the following:

- **Trauma centers**—by establishing three programs to award grants to qualified public, not-for-profit Indian Health Service, Indian tribal, and urban Indian trauma centers to defray the substantial uncompensated care costs, further the core missions of the centers, and provide emergency relief to ensure the availability of trauma services.

- **Trauma service availability**—by creating a new grant program to support trauma-related physician specialties and access to trauma-related services.

- **Trauma EMS Program**—by reauthorizing the Trauma-EMS Program.

- **Regionalization of emergency care**—by requiring the Secretary to award no fewer than four multiyear contracts or competitive grants for pilot projects to improve regional coordination of emergency services. Eligible entities would design, implement, and evaluate certain emergency medical and trauma systems.

While the focus of much of the law relates to improving the primary care workforce, the College was successful in ensuring the inclusion of several provisions that make the first steps in addressing the surgical workforce crisis, including the following:

- **Creating an incentive payment program for major surgical procedures**—which provides a 10 percent bonus payment for procedures provided by a general surgeon practicing in a Health Professional Shortage Area beginning January 1, 2011.

- **Establishing a pediatric specialty loan repayment program**—by which participants, (including pediatric surgeons) would agree to work full-time for no less than two years in pediatric medicine or surgery, or in child and adolescent mental and behavioral health care. The program would pay up to $35,000 per year for each year of service, for a maximum of three years. The bill authorizes $30 million per year for loan repayments for pediatric medical and surgical specialists.

- **Redistributing unused graduate medical education (GME) residency slots**—by increasing the number of GME positions in states with the lowest resident physician-to-patient ratios. Specifically, 65 percent of currently unused GME slots would be redistributed. Seventy-five percent of the redistributed slots must be used for primary care or general surgery residencies.

In addition, the College, working with many of the surgical specialty groups and organized medicine, was successful in making improvements to H.R. 3590 that included the following:

- Exclusion of a tax on cosmetic surgery
- Removing budget neutrality as the funding mechanism for bonus payments to rural general surgeons
- Removal of the Medicare application fee, which would have required physicians to pay an application fee to cover a background check for participation in Medicare

The ultimate impact of the Patient Protection and Affordable Care Act will not be known for several years, as many of the major provisions go into effect in 2014 and 2015. However, as the law is implemented, the College, guided by our core principles, will continue to work to ensure the sustainability of the practice of surgery and access to the highest-quality surgical care for all Americans.
When President Barack Obama signed the sweeping Patient Protection and Affordable Care Act of 2010 (ACA) on March 23, it signaled the dawn of a new era in health care delivery in the U.S. Even so, the next morning, health care delivery and financing in this nation felt pretty much the same as the day before. However, as the various provisions in the law move through multiple stages of implementation, the landscape of the U.S. health care system is slowly beginning to morph. Many of the major provisions that are likely to change or impact the delivery of health care are scheduled to take effect over the course of the next few years. To ensure that surgical patients continue to receive high-quality care, the American College of Surgeons (ACS) has been working diligently to shift its advocacy focus from the legislative process toward the implementation and regulatory arena. This article provides an overview of some of the latest ACA implementation developments, and offers a look forward to consider how the implementation of several major provisions of the ACA will likely affect surgeons and their ability to provide care to their patients.

Commissioning commissions

On September 23, the Obama Administration named the members of the Patient-Centered Outcomes Research Institute (PCORI). The PCORI, as outlined in the ACA, is responsible for evaluating the comparative effectiveness of medical and surgical treatments for various medical conditions. The 21-member PCORI comprises the director of the Agency for Healthcare Research and Quality, the Director of the National Institutes of Health, and 19 appointees.
The ACS is pleased that the Administration has appointed Robert Zwolak, MD, PhD, FACS, to the PCORI for a renewable six-year term. Dr. Zwolak is a vascular surgeon at Dartmouth-Hitchcock Medical Center and professor of surgery at the Dartmouth Medical School, Hanover, NH. The ACS supported Dr. Zwolak’s nomination to the PCORI, and believes that his expertise and commitment will bring a much-needed surgical perspective to the Institute.

The PCORI is expected to play a critical role in the development of a national comparative effectiveness agenda. Providing input to the PCORI on research priorities and the effectiveness of procedures under investigation will be an important activity for the College, as it could have a lasting effect on Medicare coverage and payment policies—policies that are typically replicated in private pay markets.

In another move to meet deadlines set under the ACA, on September 30, the Obama Administration named the 15 members of the National Health Care Workforce Commission. The ACS is extremely disappointed that no surgeon was appointed to the Commission. However, the ACS is continuing to push for surgical representation on the workforce commission in future calls for nominations. In addition, the ACS is pleased that the Administration appointed Thomas Ricketts, PhD, MPH, co-director of the ACS Health Policy Research Institute, to the workforce commission for a three-year term. Dr. Ricketts is a professor in the department of health policy and management at the University of North Carolina, Chapel Hill, Gillings School of Global Public Health, and serves as the deputy director for policy analysis at the Cecil G. Sheps Center for Health Services Research. With a growing dearth of general surgeons across the country and current and impending shortages in other surgical specialties, Dr. Ricketts’ expertise on workforce issues will prove invaluable to the workforce commission.

CMMI

A controversial and vague provision of the ACA calls for creating a new body referred to as the Center for Medicare & Medicaid Innovation (CMMI). The CMMI is responsible for developing and testing different payment and delivery model alternatives with a budget of $10 billion through 2019. With this broad charge, exactly what types of alternatives the CMMI will pursue is unknown. However, the law also directs the CMMI to focus part of its efforts on several areas, including the following:

- Primary care reform and “patient-centered medical home models”
- Direct contracting with surgeons, physicians, and other providers (for example, through risk-based comprehensive payment or salary-based payment models)
- Care coordination between providers of services and suppliers that move providers away from fee-for-service-based payments toward salary-based payment
- Creation of appropriateness criteria and corresponding payment variations for physicians who order advanced diagnostic imaging services
- Dissemination of quality and efficiency best practices in the delivery of health care
- Exploration of electronic monitoring by specialists, including intensivists and critical care specialists for facilitating inpatient care
- Delivery of certain outpatient care (such as outpatient physical therapy) without the referral of a physician or involvement of a physician in the development of a plan of care

On September 27, Richard Gilfillan, MD, was named acting director of the CMMI. At the time of his appointment, Dr. Gilfillan was director of performance-based payment policy at the Centers for Medicare & Medicaid Services (CMS). Previously, he held various positions at the Geisinger Health System and Health Plan, including having served as president and chief executive officer of the Geisinger Health Plan and executive vice-president of Insurance Operations for Geisinger Health System, Danville, PA.

In order to ensure that patients have access to quality surgical care, the ACS continues to provide input to these and other bodies tasked with redesigning the health care system. As the CMMI commences its efforts, the ACS will work to ensure that the “innovations” that the CMMI pursues are complementary to efforts of the College to improve quality and efficiency in surgery.

Utility of a value-based payment modifier

Perhaps one of the most worrisome provisions in the ACA is the one that requires the Secretary of the Department of Health and Human Services (HHS) to apply a separate, budget-neutral pay-
ment modifier (the “value-based payment modifier”) to the Medicare fee-for-service physician fee schedule payment formula, based on quality and geographic variations in the delivery of care. The payment modifier is slated to be phased in from January 1, 2015, through January 1, 2017. This mechanism is intended to better distribute payments between geographic areas.

Although the modifier is not scheduled for implementation until 2015, CMS has already signaled (via the 2011 physician fee schedule proposal rule) an intention to link the value-based payment modifier to the Resource Use Reports (RUR) program that it had initiated even before the passage of the ACA.

In its response to the physician fee schedule proposed rule submitted in August, the ACS made clear that this organization believes it is premature for CMS to rely too heavily on the RUR program in developing the congressionally mandated payment modifier. The ACS stated that the development of an accurate and fair value-based payment modifier will be extremely challenging, especially given the difficulties of attributing care to a single physician and the effects of delivering complex care involving teams of physicians. The RUR program itself is in an early stage, and relatively few physicians have currently received the feedback reports. The ACS also expressed serious concern regarding the budget-neutral nature of the value-based payment modifier.

Many health policy experts believe that Congress may alter or eliminate the value-based payment modifier provision. The ACS continues its work to ensure that policymakers and legislators are aware of the negative consequences of imposing such a modifier on the physician fee schedule payment formula. The first problem lies with the proposed connection between the modifier and the RUR program. The value-based payment modifier is still in its infancy, and it is unclear at this stage how it will be implemented, especially in light of the problems attributing care to a single physician and the effects of delivering complex care involving teams of physicians. The provision also requires an unrealistic and unachievable timeline, and given the lack of appropriate data for use in the program, could result in physicians being financially penalized under an instrument that is neither well-designed nor equipped with the appropriate inputs. If implemented, this would then provide perverse financial incentives in the name of quality of care while doing nothing to improve the health of patients.

### Accountable care organizations

One of the most widely debated provisions in the ACA calls for the creation of accountable care organizations (ACOs). The ACA section that alludes to these entities is actually titled the Medicare Shared Savings Program. The concept of ACOs is not particularly well-defined, and ACOs can come in a variety of formats. According to the legislation, several different types of ACOs could participate in the Medicare Shared Savings Program, including the following:

- Physicians and other professionals in group practices
- Physicians and other professionals in networks of practices
- Partnerships or joint venture arrangements between hospitals and physicians and health care professionals
- Hospitals employing physicians or other professionals
- Other groups that the HHS Secretary deems appropriate

CMS is expected to issue a notice of proposed rulemaking in late 2010 or early 2011 to further detail the shared savings program and the requirements to become an ACO. While CMS has not yet provided much information about what this guidance will contain, the legislation also contained several criteria that ACOs must meet to participate in the program, including the following examples:

- A formal legal structure to receive and distribute the savings
- A minimum of 5,000 beneficiaries assigned to the ACO
- An agreement to participate in the program for at least three years
- A defined leadership and management structure, including clinical and administrative systems
- Processes to promote evidence-based medicine, coordinate care, and report data to evaluate

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quality and cost measures (which might include the Medicare Physician Quality Reporting Initiative [PQRI] electronic prescribing incentive program, and electronic health record [EHR] incentive program)
• Demonstrate that it has met “patient-centeredness criteria” as determined by the HHS Secretary
  In a related move, CMS scheduled a joint public workshop in cooperation with the Federal Trade Commission and the HHS Office of the Inspector General to tackle the many legal issues that complicate the creation of ACOs. The workshop took place October 5, and focused on how the creation and functioning of an ACO and physician participation in an ACO can implicate antitrust laws, the Civil Monetary Penalty law, the federal anti-kickback statute, and Stark self-referral laws and regulations. In advance of the workshop, the ACS submitted comments outlining the need for the respective government agencies to provide explicit protections for physicians participating in ACOs and clear guidance on avoiding legal liabilities for engaging in well-intentioned activities incentivized under the ACA. In addition, the ACS expressed the need for these government entities to create a level playing field in the context of these laws and regulations in order to increase the ability of ACOs to provide their assigned beneficiaries with high-quality coordinated care.

In preparation for the proliferation of ACOs and the bundled payment mechanisms that will likely accompany many of the ACOs’ activities, the ACS has engaged its relevant committees and workgroups, including the Health Policy and Advocacy Group and General Surgery Coding and Reimbursement Committee, to ensure that surgeons are well-positioned to provide care to their patients in these alternative payment models.

Independent Payment Advisory Board (IPAB)
  Throughout the health care reform debate, the ACS regularly voiced its opposition to the creation of an unelected, unaccountable board charged with making broad cuts to Medicare services and, possibly, patient access to care. As presented in the legislation, the IPAB continued to maintain elements that the College found to be counterproductive to the goal of creating a more efficient health care delivery system, particularly in the context of the flawed Medicare physician payment formula.
  The IPAB is not expected to directly affect rates until 2015. However, the ACS remains concerned that without an open and transparent legislative process, Medicare beneficiaries and the physicians who provide their care will be subject to arbitrary cuts that will inhibit the ability of patients to access necessary care. The ACS has continued to make these concerns known and will pursue opportunities to correct the misguided policies set forth in this section of the ACA.

Just the beginning...
  The provisions described in this article represent just the tip of the iceberg in the implementation of the ACA. There will doubtless be continued appointments, rulemaking, and opportunities to make improvements to these and other measures. Because of the flurry of activity, the ability of physician organizations to provide timely input and expertise at all levels of policymaking will be imperative. Because of long-range planning and the commitment of Fellows, the ACS is poised to do exactly that.

For more information regarding the implementation of the ACA, visit http://www.facs.org/ahp/regulatory.html or contact Bob Jasak, Assistant Director for Regulatory and Quality Affairs, at bjasak@facs.org or 202-672-1508.

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Health care coverage in the U.S. is characterized by a patchwork of public and private health insurance programs and heavy reliance on employer-sponsored plans. Though longstanding, the private insurance marketplace has been marked by numerous inefficiencies and disadvantages to consumers, including limited competition, hidden costs, and insurers’ ability to exclude high-risk customers through medical underwriting or to limit high-risk coverage through price differentiation.1-4

The Affordable Care Act (ACA) was enacted in 2010 in an effort to reduce the number of uninsured Americans, ensure high-quality coverage for insured Americans, and stem the crisis of rapidly increasing national health care costs. An integral means of addressing these problems involves the establishment of insurance exchanges.5,6 This article describes the potential advantages and consequences of ACA insurance exchanges and explores how their implementation may affect the practice of surgery in the U.S.
Whereas the specifics of their design may vary, all ACA insurance exchanges are intended to address a few central aims: increased consumer access to insurance, enhanced competition among carriers, stabilization of insurance markets, and improved quality and uniformity of insurance coverage plans.

**History of insurance exchanges**

Based on Alain Enthoven’s concept of “managed competition,” an insurance exchange is an organized marketplace for the sale and purchase of health insurance. Exchanges are managed in order to promote access and informed decision making among consumers and to promote efficient risk-sharing mechanisms among insurers; they are competitive in order to reward quality, efficiency, and value among insurers and plans. To date, insurance exchanges have been implemented both in Europe and in the U.S., where they have operated on the federal, state, and industry levels. Notable examples include the Federal Employees Health Benefits Program (FEHBP), Health Insurance Purchasing Cooperatives (HIPCs) in Texas and Iowa, the Commonwealth Health Insurance Connector Authority (“Connector”) in Massachusetts, and purchasing pools formed by the Connecticut Business and Industry Association and the American Bar Association. Although some exchanges have expanded consumer choice and have dramatically improved consumer access to the insurance marketplace, they have not necessarily reduced premiums. Furthermore, a number of exchanges have failed outright due to an inability to achieve significant market share and economies of scale, adverse selection within and against the exchanges, and insurance company cherry-picking of healthy consumers to non-exchange plans. The ACA includes precautions to reduce the likelihood that its insurance exchanges will be similarly affected.

**Types of ACA exchanges**

The ACA establishes two types of insurance exchanges: the American Health Benefits Exchange (AHBE) for individual purchasers and the Small Business Health Options Program (SHOP) for businesses with fewer than 100 employees, although until 2016, states retain the discretion to limit eligibility to businesses with fewer than 50 employees. Through AHBE, individuals benefit from economies of scale to access a wider range of plans than otherwise may have been available to them. SHOP provides a similar service for small businesses. Notably, small businesses also have the option to self-insure or to pay for employee benefits through a private trust.

Although some features of insurance exchanges are federally mandated, states have considerable flexibility in their design and implementation. States may operate their own exchanges, partner with other states to form a joint exchange, collaborate with the federal government, or rely on an exchange established and run by the U.S. Department of Health and Human Services. States may determine the number of exchanges they will offer, the number of plans included in each exchange (in addition to two federally sponsored plans), and the administrative structure of the exchange (public, private, or semi-private). They may merge individual and small group markets, and will ultimately have the option of including large groups (>1,000 employees) in the exchange consumer pool. Finally, states have discretion regarding the particulars of risk adjustment, the demands placed on insurance brokers and navigators, and any “essential services” beyond those mandated by the federal government.

**Key aims**

Whereas the specifics of their design may vary, all ACA insurance exchanges are intended to address a few central aims: increase consumer access to insurance, en...
### Table 1. Insurance Exchanges Under the ACA

<table>
<thead>
<tr>
<th>AIM</th>
<th>MECHANISM</th>
<th>THREATS</th>
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</thead>
</table>
| Increased access to insurance coverage | Broader insurance reforms  
• Guaranteed issue  
• Ban on underwriting | “Churning” between Medicaid and exchanges  
Coverage gaps |
| | Subsidies<sup>22</sup>  
• Tax credits for individual purchasers whose annual income, based on most recent tax return, is less than 400% of the federal poverty level (FPL), but who are ineligible for Medicaid or any other public insurance program  
• Tax credits for small businesses with fewer than 25 employees and an average annual wage of less than $50,000; slated to increase from 35% to 50% in 2014<sup>16</sup>  
• Cost-sharing subsidies for individual purchasers whose expected income is less than 250% FPL to offset the out-of-pocket costs<sup>1</sup> | Subsidies may be inadequate  
False positives, negatives in calculated subsidy eligibility  
Ineffective competition may not reduce premiums |
| | Streamlined enrollment  
• Centralized, online payment mechanisms  
• Exchanges determine consumers’ eligibility for plans and subsidies | |
| Enhanced competition between insurers | Consumer choice and informed decision making  
• Array of available plans  
• Independent “navigator” service to guide consumers  
• Coverage tiers based on actuarial equivalences  
− 90% of anticipated medical costs covered by premium = Platinum; 80% = Gold; 70% = Silver; 60% = Bronze | “Information overload” for consumers  
Limited health literacy among consumers  
Limited utility of actuarial data in predicting best plan for an individual consumer |
| Stabilization of insurance markets | Risk-spreading and risk adjustment (see Table 2, page 23) | Adverse selection  
• Within insurance exchanges, sicker consumers may choose more comprehensive plans  
• Outside of exchange, healthy consumers may choose self-insurance or “grandfathered” plans  
Cherry-picking by non-exchange plans  
Risk-adjustment calculations are imperfect |
| Increased coverage quality | Essential services  
• Ambulatory patient services  
• Emergency services  
• Hospitalization  
• Maternity and newborn care  
• Mental health and substance abuse disorder services  
• Prescription drugs  
• Rehab services and devices  
• Laboratory services  
• Preventive, wellness services, chronic disease management  
• Pediatric services including oral and vision care  
Network of essential providers  
Market mechanisms to foster high-quality plans | Grandfathered plans  
Self-insurance options  
Coverage gaps, churning |
hance competition among carriers, stabilize insurance markets, and improve quality and uniformity of insurance coverage plans.

Increased access
To expand access to coverage, ACA exchanges are designed to streamline enrollment and help ensure affordability for a range of consumers. Exchanges must offer centralized, online mechanisms for plan enrollment and are responsible for determining purchasers’ eligibility for plans and subsidies. They must coordinate with other federal institutions, including the Centers for Medicare & Medicaid Services (CMS) and the U.S. Treasury Department, to ensure that consumers receive the maximum possible assistance in the form of tax credits and/or cost-sharing subsidies.2,22

Enhanced competition
ACA exchanges are designed to promote competition between insurers.23 As they aim to expand consumers’ choice of plans, ACA exchanges must also offer independent “navigator” programs to educate and guide consumers through the plan selection and purchasing process.3 Furthermore, exchanges must categorize and rate plans based on actuarial equivalence data, thus presenting consumers with an intuitive indication of cost and value. The goal is improved market efficiency based on robust consumer choice.

In these and other ways, ACA exchanges attempt to resolve many impediments to competition that have traditionally characterized the marketplace. By offering consumers a range of options, exchanges could solve the previous problem of lack of accessible substitute products. By educating consumers and offering them broader plan selection, they could increase what was previously a limited ability to leverage coordinated consumer pressure for higher quality plans. By facilitating direct cost and value comparisons across plans and by enforcing eligibility criteria for plans included in the exchange (for example, MLRs and justified premium increases), they could limit health insurance companies’ ability to pass costs directly to the consumer.2 These changes are intended to help contain and reduce costs.

Market stabilization
ACA insurance exchanges are designed to stabilize insurance markets through effective risk-spreading and risk-adjustment mechanisms.24 ACA-specific mechanisms (see Table 2, page 23) include transitional risk insurance, in which the federal government reimburses insurers a portion of the cost of previously uninsured patients, and transitional risk corridors, in which insurers contribute to a common fund to reimburse plans with unexpectedly high costs.25 In addition, the ACA allows for ongoing risk adjustment, such as the diagnosis-based risk assessment already implemented for Medicare Advantage plans. These risk assessments inform adjustments in federal reimbursement and guide direct monetary transfers between insurance companies with more and less healthy enrollees.24

Broader reforms under the ACA also are intended to stabilize insurance markets. For instance, guaranteed issue reduces the likelihood of cherry-picking as a means of distorting consumer risk pools, and the individual mandate incented low-risk consumers to participate in the market and effect risk-spreading. Exchange guidelines go further.14 Limited enrollment windows for AHBE plans encourage individuals to enroll at the beginning of the year, instead of waiting until they realize they may need medical services. Similarly, the SHOP requirement that employers select a coverage tier is meant to reduce adverse selection when employees select a particular plan. In addition, ACA exchanges permit “price rating” of plans only within a narrow range and according to a limited set of consumer characteristics, to help offset the anticipated costs of higher-risk consumers. Indeed, insurers may adjust premiums based only on age, tobacco status, family composition, location, and other variables. Many of the particulars of these adjustments, such as age bands and the premium increases assigned to them, remain in the purview of individual states.17,26

Quality of coverage
The final central aim of the ACA and of ACA insurance exchanges is higher-quality insurance coverage. To this end, insurance exchanges are responsible for certifying all participating qualified health plans (QHPs). Under federal law, QHPs must offer “essential services”
across 10 categories of care and do so through a robust network of “essential providers” who can provide their services without unreasonable delay. These networks also must demonstrate particular attentiveness to the needs of disadvantaged populations.

States also may set their own quality standards above those of the federal government. Indeed, each state must select a “benchmark plan” that defines its essential benefits and sets the standard for all public and private plans. Of note, these standards do not apply to grandfathered plans for individuals and small and large groups, nearly half of which may fall short of the federal standards for new programs as of 2014.

Finally, even among eligible plans, insurance exchanges have full discretion over which plans to include in the exchange. State exchanges may operate as a certifying organization and clearinghouse for all QHPs or as “active purchasers” that contract and/or negotiate premiums with limited number of QHPs.

Among those exchanges that choose the latter model, admission to the exchange and access to the large body of consumers it represents is seen as powerful leverage for creating high-quality, affordable plans.

### Predicted impact

Insurance exchanges and the ACA are anticipated to have a dramatic effect on health care coverage in the U.S. The ACA is predicted to expand insurance coverage to an additional 30 million Americans by the year 2022, although some 30 million people will likely remain uninsured. Exchanges are also predicted to significantly reduce but not eliminate ethnic and racial disparities in insurance coverage. Similar results have been observed in previously implemented state exchanges. The manner by which individuals achieve


### Table 2. Mechanisms of Risk Spreading and Risk Adjustment

<table>
<thead>
<tr>
<th>Risk-Spreading Strategies</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guaranteed issue</td>
<td>Insurers in a given area must sell statutorily acceptable health insurance to any individual or family in that area who seeks coverage.</td>
</tr>
<tr>
<td>Eliminate medical underwriting</td>
<td>Formal and informal health assessments cannot be used to determine premiums or to grant or deny coverage (exceptions: age, smoking status).</td>
</tr>
<tr>
<td>Advertising regulations</td>
<td>Insurance plans must engage in at least a minimum amount of advertising to promote their plans and may not attempt to discourage less healthy individuals from purchasing their product.</td>
</tr>
<tr>
<td>Individual mandate</td>
<td>Individuals who choose not to purchase insurance coverage must pay a penalty to the Internal Revenue Service.</td>
</tr>
<tr>
<td>Employer shared responsibility</td>
<td>Businesses with more than 50 full-time workers may be subject to an assessable payment if they do not offer employees and dependents an affordable health care plan that meets essential standards.</td>
</tr>
<tr>
<td>Small business selection of employee coverage tier</td>
<td>SHOP reduces the likelihood of adverse selection by permitting individual purchasers to choose plans but not coverage tiers.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Risk-Adjustment Strategies</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premium adjustments</td>
<td>Premium adjustments based on age (&lt;3:1 ratio), tobacco use (&lt;1.5:1 ratio), family composition, and location to offset anticipated costs of higher-risk enrollees</td>
</tr>
<tr>
<td>Transitional insurance</td>
<td>Financial protection for insurers who offer coverage to previously uninsured individuals between 2014 and 2016, by subsidizing a percentage of payments above a previously determined threshold in relation to a patient’s risk-based predicted costs</td>
</tr>
<tr>
<td>Transitional risk corridors</td>
<td>Target health expenditures according to health status of insurance pool; insurance companies will pay into or receive funding from risk corridor program if spending is below or above previously established thresholds</td>
</tr>
<tr>
<td>Ongoing risk adjustment</td>
<td>Direct fund transfers between insurance companies with healthier patient pools to those with less healthy patient pools</td>
</tr>
</tbody>
</table>
coverage may also change, as large firms may choose to refer employees and retirees to the individual exchange for insurance coverage instead of offering them a unique benefits plan.34

Much regarding the future of exchanges, however, remains unknown. Not all states have decided on the structure and offerings of their insurance exchanges, and those that have indicate that there will be wide variation across jurisdictions (see Table 3, this page).31 In addition, there are significant threats and challenges to the successful implementation of ACA insurance exchanges, including low rates of consumer and insurer participation, interrupted coverage, adverse selection, and runaway costs.

**Consumer nonparticipation**

Insurance exchanges face the risk that too few consumers will participate to achieve large risk pools and ensure exchange viability.35 Potential causes of consumer nonparticipation include low health literacy, the complexity of exchange offerings, the limited utility of actuarial data in guiding individual consumers to the most appropriate plan, and prohibitive costs.31,15,36

The ACA’s individual mandate is a key mechanism for promoting consumer participation in insurance exchanges. For most individuals, the consequence of noncompliance is a tax penalty, set at the higher of two values: $695 per adult in 2016, indexed to inflation thereafter with lesser fees for children and an overall cap on family penalties, or 2.5 percent of the household income.37 However, a number of groups are exempt from the individual mandate or from the penalty. Such groups include individuals whose premiums would exceed a certain share of their income (8 percent in 2014).37 Furthermore, enforcement of the penalty for uninsured individuals is limited to action by the Treasury to collect through income tax returns, without authorizing additional mechanisms such as liens. In effect, non-filers or filers who are ineligible for an in-

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**TABLE 3. INSURANCE EXCHANGE DESIGN: STATES’ CHOICES**

<table>
<thead>
<tr>
<th>EXCHANGE STATUS</th>
<th>NUMBER OF STATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>State exchange</td>
<td>18 and District of Columbia</td>
</tr>
<tr>
<td>Partnership exchange</td>
<td>7</td>
</tr>
<tr>
<td>Default to federal (HHS) exchange</td>
<td>25</td>
</tr>
<tr>
<td>Undecided</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TYPE OF EXCHANGE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Clearinghouse (all QHPs included)</td>
<td>6</td>
</tr>
<tr>
<td>Active purchasers (select QHPs included)</td>
<td>7</td>
</tr>
</tbody>
</table>
come tax refund are unlikely to be penalized, thus diminishing the incentive effect of the mandate. Finally, some groups (including large employers) are expressly excluded from participation in the exchanges, regardless of whether they are legally required to purchase or provide insurance coverage. Although exchange navigators and insurance subsidies are intended to promote consumer participation in exchanges, nonparticipation is a salient risk to exchange viability, and the rate of consumer participation remains to be seen.

**Insurer nonparticipation**

Insurance exchanges are also vulnerable to low rates of insurer participation. Insurance companies may choose not to participate if risk-adjustment strategies are poor and if they maintain a sufficient number of consumers in grandfathered plans. Access to a large pool of potential customers and careful, ongoing risk adjustment are intended to encourage insurer participation. In fact, it is estimated that by 2021, the insurance industry will collect $205 billion in additional premiums, certainly incentivizing insurers to participate.

**Interrupted coverage**

Under the ACA, as noted, the expansion of insurance coverage will not reach all Americans. This unmet need is attributable in part to disruptions in coverage for those at the cusp of Medicaid eligibility, who may “churn” between Medicaid and exchanges due to income fluctuations and calculation errors. This risk is particularly salient in states that intend to delay or refuse Medicaid expansion, as was initially mandated under the ACA.

**Adverse selection**

Adverse selection represents a formidable challenge to insurance exchanges as it does to the insurance market in general. Under the ACA, this risk may be exacerbated by grandfathered plans, which may offer limited coverage at favorable prices for healthy consumers.

**REFERENCES**

and by the possibility that small business may choose to self-insure as long as their employees are healthy.\textsuperscript{14,26}

As discussed previously, the ACA’s precautions to reduce adverse selection include the individual mandate and a range of risk-adjustment mechanisms. Within SHOP, employer selection of coverage tier may also reduce the risk that primarily less healthy individuals will purchase more generous coverage.\textsuperscript{11}

Costs

Health care costs remain a major concern; insurance exchanges can only control spending if they are administratively efficient, if the marketplace is competitive, and if adverse selection is prevented effectively. The ACA’s expansion of coverage may increase the likelihood of moral hazard and overconsumption of health care services by a larger patient population, although the law is expensive, regardless. Indeed, the cost of expanding coverage through the ACA is estimated at $1,168 billion from 2011 to 2022 (down from $1,252 billion before the U.S. Supreme Court ruling on Medicaid).\textsuperscript{32} By the year 2021, 50 percent of all U.S. health expenditures may be paid for by the local, state, or federal government.\textsuperscript{41} At press time, a $1.2 trillion budget sequester had taken effect on March 1. The impact of sequester spending cuts on ACA insurance exchanges was unclear: although Medicare cuts are restricted to 2 percent of the program budget and Medicaid and CHIP are exempt, funding for exchanges is not.\textsuperscript{42}

Impact on surgeons

It is difficult to predict the precise impact of the ACA on surgeons and surgical practice, though it is possible to foresee effects on the surgical workforce, procedure reimbursement, and surgeon autonomy. Of note, much of the anticipated impact of the ACA is due not only to insurance exchanges but to broader changes required under the law.

Workforce issues

The ratio of general surgeons to overall population in the U.S. has declined in recent decades, and this trend has fueled concern that the country is facing an

REFERENCES (CONTINUED)

impending shortage of surgeons, particularly in rural areas. Indeed, estimates of surgeon shortages for the year 2030 range from a 9 percent shortage for general surgeons to 39 percent for thoracic surgeons, with deficits predicted in at least seven surgical specialties. Although the effect of an aging population has been incorporated in assessments of surgical workforce adequacy, the impact of increased insurance coverage and service use under the ACA has received limited attention. Nonetheless, it seems likely that the already strained surgical workforce will come under increasing pressure as 30 million Americans acquire health insurance coverage.

Safety net institutions
Safety net institutions, including most academic medical centers, and particularly those mandated to serve uninsured populations, face mounting challenges as private and for-profit hospitals and enterprises such as outpatient surgery centers seek to more aggressively court privately insured patients. This trend is facilitated by accountable care organizations (ACOs), bundling demonstration projects, and other arrangements that strongly incentivize participating providers and institutions to keep insured patients within their own networks. These safety net institutions will continue to absorb the costs of caring for Medicare, Medicaid, uninsured, and indigent populations. These costs may be all the more significant because “disproportionate share payments”—federal payments to institutions that care for a large number of uninsured patients—are slated to decrease under the ACA.

Reimbursement
Under the ACA, physician and hospital reimbursement will change in several ways. Reimbursement is expressively shifted toward primary care through efforts such as the Primary Care Incentive Program (PCIP). Although fee-for-service will remain the dominant model, cost-bundling, global payments, and new “pay-for-performance” models—including the value-based modifier (VBM), which would adjust physician reimbursement based on benchmarked measures of quality, cost, and patient satisfaction—are on the horizon.

REFERENCES (CONTINUED)

continued on next page
In addition, the ACA creates or advances a number of programs that provide incentives and penalties for compliance or noncompliance, respectively, including the Medicare Electronic Health Records Incentive Program and the Physician Quality Reporting System. The ACA also calls for the establishment of the Independent Payment Advisory Board to make recommendations on Medicare payment, which may inform private plans’ standards for coverage and reimbursement. Concurrently, CMS is actively re-evaluating reimbursement for “potentially misvalued codes,” such as gastrointestinal scoping. Finally, the federal government’s recently announced plan to sponsor insurance plans through state exchanges may effect de facto standards for all private plans in terms of services, consumer premiums, and provider reimbursement.

Surgeon autonomy

The ACA may have an effect on surgeon autonomy, both in terms of clinical decision making and the administration of a surgical practice. Growing regulatory demands, including the incentivized use of electronic medical records, might place a significant financial burden on smaller practices in addition to requiring practice adaptations by individual surgeons. Furthermore, ACOs, as outlined in the ACA, are intended to further integrate providers both horizontally (across physician specialty) and vertically (physicians and hospitals) with the goals of improving quality and limiting cost. This provision may foster or necessitate closer working relationships between surgeons and nonsurgeons but is also expected to result in changed patterns of specialist referral and will likely affect practice in other ways. Additionally, the Patient-Centered Outcomes Research Institute (PCORI) will promote and fund comparative clinical effectiveness research; eventually, this research will help establish an evidence-based standard of care to which surgeons and other providers could be held accountable. Of note, the PCORI is expressly prevented from conducting cost-effectiveness analyses or funding research projects that include a cost-effectiveness component.

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**Conclusion**

Insurance exchanges as envisioned and implemented under the ACA represent a sea change in insurance coverage in the U.S. The potential benefits of ACA insurance exchanges include increased patient access to insurance coverage and greater competition between insurance providers. However, the threats to successful implementation, such as adverse selection and the potential fiscal consequences of expanded coverage, warrant continual reassessment.

The ACA and insurance exchanges will likely continue to encounter political challenges. Already, dozens of attempts to repeal the ACA have been made in the U.S. House of Representatives, and it is possible that similar efforts will continue for years to come. In addition, politics at the state level might well trump federal activity on exchanges, as the states are under deadlines to determine whether they will create exchanges of their own. Reflecting the role of state politics in this matter, of the 18 states and the District of Columbia who have declared they will implement their own exchanges, 16 have Democratic governors and/or state legislatures. Of the 25 states that have decided not to implement exchanges, all have Republican governors and/or state legislatures. The law itself is likely to be amended and revised over time, including the particulars regarding health insurance exchanges. There may be important opportunities for surgeons to become involved in these developments. For instance, the ACS and other professional organizations might advocate for certain procedures to be included in state or federal essential benefits or might help guide states’ selections of benchmark insurance plans.

As the ACA is implemented and reformed, much research is needed regarding the impact of insurance exchanges on surgical practice, including the effects on individual surgical specialties, surgeons practicing in public and private settings, and rates and reimbursement of elective and urgent procedures. The impact on both patients and surgeons is likely to be considerable, and continued engagement in the development and implementation of state exchanges is imperative.

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DIVISION OF ADVOCACY AND HEALTH POLICY
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DISCLAIMER
This research guide has been developed by the American College of Surgeons as an aid for surgeons exploring new models of practice and for informational purposes and does not constitute formal legal, accounting, or information systems consulting advice.
TABLE OF CONTENTS

Introduction .............................................................................................................................................................................36

Dimension 1: Types of hospital/institution environments...................................................................................................................37

Major metropolitan tertiary care referral hospitals or academic medical centers .................................................................37
Not-for-profit community hospitals ........................................................................................................................................37
Rural or critical access hospitals ..........................................................................................................................................37
Large group practice ...............................................................................................................................................................37
Small group practice ...............................................................................................................................................................37

Dimension 2: Types of hospital employment........................................................................................................................................38

Full employment with new surgeons joining other employed surgeons in a private practice ........................................38
Full employment with new surgeons joining other employed surgeons in an academic practice ...............................38
Full employment of established surgeons with purchase of established practice ...........................................................38
Employment of an established surgeon as a contractor .........................................................................................................39
Hospital support or stipend, while remaining in private practice ........................................................................................39

Dimension 3: Types of transitional situations .........................................................................................................................................40

Private practice to employment .................................................................................................................................................40
Selling your practice .................................................................................................................................................................40
Repurchase provisions ............................................................................................................................................................40
Employed surgeons renegotiating their contract .......................................................................................................................40
Employed surgeons moving to a new hospital/institution ........................................................................................................41
Residents or surgeons finishing fellowship: Choosing a practice ........................................................................................41

Understanding and negotiating your employment contract ......................................................................................................42

General employment contract provisions ................................................................................................................................43
Compensation and benefits ......................................................................................................................................................45
Conclusion ................................................................................................................................................................................46

References ................................................................................................................................................................................47
INTRODUCTION

In the 1990s, with the move toward managed care and health maintenance organizations, hospitals began to purchase physician practices, especially primary care practices, in large numbers. However, these ventures, in general, were not successful due to poor incentive compensation design, lack of accountability on the part of the new employees, and the assumption that the physicians would function the same as when they were self-employed. Most of these relationships guaranteed physician salaries with no productivity or quality-of-care metrics, and as a result, these types of arrangements failed by the start of the next decade. Consequently, it is now very rare to see an arrangement with compensation guaranteed, without some type of measure of productivity and/or quality.

Recently, there has been a renewed movement toward employment of physicians by hospitals, especially specialty physicians. According to the American Hospital Association (AHA), hospitals now support one in nine jobs in the United States. The American Medical Association (AMA) stated, “the number of physicians and dentists employed full time by community hospitals went up from 62,152 in 1998 to 91,282 in 2010.” What factors are driving this trend?

• Hospitals are trying to build targeted specialty services to increase market share and revenue.
• Younger physicians are seeking a different work/life balance.
• Reimbursement rates based upon the Medicare conversion factor for physicians and surgeons have been essentially stagnant for the past decade.
• In the meantime, for practicing surgeons, overhead costs have continued to grow during that same decade.
• Adding to this financial insult for surgeons is now the need to implement costly health information technology systems that make it even more difficult for many physicians to afford to remain in independent practice.

• Lastly, the creation of accountable care organizations and more risk-based payment approaches also fuel the push toward hospital-based employment, as institutions try to align the interests of both hospital and surgeon-provider.

As the economy continues to put pressure on hospitals and physicians to lower cost and increase quality, hospitals increasingly need physicians for growth in the battle to keep margins expanding or even holding. Physicians bring efficiency in product delivery and capital efficiencies by reducing duplicated service lines. The hospital’s ability to control quality and monitor patient satisfaction will prove useful in the future environment of health care.

The American College of Surgeons (ACS) has developed this research guide to provide valuable information that surgeons will find useful when considering institutional or hospital-based employment. In the context of this research guide, employment is used in the larger sense to include a wide spectrum of employment options, ranging from traditional full employment to surgeons working as locum tenens or contract employees of a hospital. Similarly, hospital is used in a sense to mean any healthcare facility ranging from small community hospital, to a large hospital institution located in multiple states. This research guide will also give an overview of the potential benefits and pitfalls of leaving private practice and entering employment as well as provide suggestions on selling a practice.

Initially, it is important to be aware of your state and federal employment laws. Currently, five states (California, Colorado, Iowa, Ohio, and Texas) clearly prohibit hospitals from employing physicians. It is important to understand your state laws regarding the employment of physicians at hospitals. Even in those states that clearly prohibit hospitals from employing physicians there are exceptions. The Office of the Inspector General (OIG) stated that in California “the prohibition does not apply to clinics operated by university medical schools or public hospitals. In Iowa, Colorado, and Ohio, teaching hospitals may hire faculty as well as residents and interns for education purposes. In Texas, public hospitals may employ physicians directly.”

This research guide is organized to consider three dimensions of surgeon employment, as each dimension has its own unique set of challenges: (1) the various hospital employment environments; (2) the various hospital employment types; and (3) the various types of transitions to or from employment. In addition, this research guide also discusses contracting issues related to employment.
DIMENSION 1: TYPES OF HOSPITAL/INSTITUTION ENVIRONMENTS

The hospital environment may vary in size, location, and mission. When deciding to enter an employment contract it is important to understand the different types of hospital environments and the employment implications associated with each environment. The choice of employment setting may affect things such as the surgeon’s work hours, practice autonomy, administrative responsibilities, and financial risks.

In general, there are three types of employment settings for hospital/institutions and two others not necessarily associated with any one type of hospital/institution.

Major metropolitan tertiary care referral hospitals or academic medical centers

These are typically hospitals that have a full range of services, including pediatrics, obstetrics, general medicine, gynecology, and various branches of surgery and psychiatry. They might also be linked to a medical school and their mission may be based on the teaching of medical students and physicians in training and research. They are typically looking for surgeons to fill on-site coverage or to develop niche markets. These types of institutions need physicians for growth in the battle to keep profit margins expanding or steady. Physicians, with the proper leadership and information, can bring efficiency in product delivery and capital efficiencies by reducing duplicated service lines. As health care reform expands, an institution's ability to control quality, improve patient satisfaction, and deliver increased value will prove useful in the future environment of health care.

Not-for-profit community hospitals

These are typically hospitals organized as a not-for-profit corporation. Their not-for-profit status is based on their charitable purpose, and in some cases, the hospital may be affiliated with a religious denomination. This type of hospital forms the backbone of American medicine and is often the largest employer in their county. One of its goals may be to develop a dominant position in its market area and, as a result, it needs the expertise and reputation of a surgeon to draw patients to the hospital. In this environment it will be helpful to understand the competition from other hospitals in the same market area in order to gauge how valuable surgical services will be to the institution. Conversely, if other entities are dominant in the market, it may be difficult to move market share and thus put the new physician at a disadvantage.

Rural or critical access hospitals

These are typically hospitals with 50 or fewer beds located more than 30 miles from another acute inpatient care facility, or more than 50 beds but are not a referral center. A rural critical access hospital is a community hospital that receives cost-based reimbursement under federal law. As a general rule, rural hospitals have a difficult time recruiting enough surgeons because of their remote location. In accepting an employment position at one these facilities it is important to note that the hospital may face problems with lack of coverage and support. As a result, surgeons who desire such a practice environment will have a strong negotiating position. Surgeons who will perform a full range of endoscopy in addition to providing surgical support will be extremely desirable for these types of settings.

Large group practice

In some instances, groups of physicians will form a group practice, which then contracts with one or several hospitals or institutions, providing services to those facilities. These groups can range from multispecialty “captive” or dedicated groups associated with one institution (such as a faculty group practice associated with a major teaching hospital), to a single specialty group that supplies surgeons or physicians to multiple institutions in an area (such as vascular surgery, radiology, or anesthesiology). In this instance, the surgeon must negotiate with other physicians within the organization, but is also free to some extent or another from having a purely hospital-centric focus when it comes to contract negotiations.

Small group practice

There are still many practices in America that employ surgeons via a corporation composed of surgeons. Although we tend to think of those arrangements as being in private practice, the surgeons nonetheless are employees of a corporation and, as such, have some of the same issues involved with being an employee of even the largest corporations.
Across most of the country, hospital employment is growing rapidly. Surgeons are aligning with hospitals through various arrangements because both their and the hospital’s needs are changing. It is important to note that there is no standard type of employment arrangement for surgeons. Each option should be evaluated for the best fit for the surgeon.

Full employment with surgeons joining other employed surgeons in a private practice

A hospital may employ or financially support a private group practice either as a wholly owned subsidiary of the hospital or its health system entity or as an affiliated practice. Typically the “structural, operational, and, to some degree, financial control over the practice entity, its shareholders, and directors may then be conveyed to the hospital by means of any number of documents and agreements, including an administrative services agreement, a stock transfer restriction agreement (to ensure a hospital-friendly successor), as well as the practice entity’s charter and bylaws.”

The hospital does not purchase any practice assets from the group, and the practice acts in most respects much like a private practice. A surgeon entering this form of employment enters into employment with the private practice, a subsidiary of the hospital, but is not directly employed by the hospital. Similar to the example above, these types of financial arrangements need critical and expert input to avoid inadvertently violating federal or state laws.

Full employment with new surgeons joining other employed surgeons in an academic practice

An academic practice is one affiliated with a university that has a medical school and/or an accredited residency program. These hospitals must be accredited by the Accreditation Council for Graduate Medical Education and approved by the state.

Surgeons that choose to join an academic practice have different responsibilities than private practice and nonacademic physicians. Academic surgeons are responsible for training and mentoring resident medical students and new doctors. At some academic institutions, surgeons may play a key role in relations with professional organizations, industry, and government. In addition, a percentage of an academic surgeon’s work week will be spent conducting clinical research. As an academic surgeon it may also be necessary to spend time developing and evaluating training programs, designing curricula and making assessments of resident doctors, researching and implementing innovations in the medical field, and dealing with policy and accreditation issues.

Full employment of established surgeons with purchase of established practice

A hospital may choose to directly employ a surgeon. In some cases the surgeon may have an existing private practice; the hospital may purchase the practice as a part of the employment agreement. There are significant state and federal regulatory issues unique to a hospital’s purchase of a private practice, including the Stark Law, anti-kickback statute, and state laws that must be taken into account.

The federal Stark Law and anti-kickback statute are designed to prevent the use of financial incentives to influence providers’ medical decisions. In addition, many states have laws in place to prevent corporate entities from influencing medical decision-making that might negatively impact patient care. Thus, good legal representation and incorporation of expert advice is essential to avoid an inadvertent violation of a law by entering into some seemingly innocent agreements.
Employment of an established surgeon as a contractor

Depending on the needs of the hospital, an established surgeon may be hired as an independent contractor, as opposed to an employee. This type of arrangement is becoming more common as hospitals or institutions see the need to align themselves with various surgical providers but want to avoid the financial investments required to purchase practices. A surgeon as a contractor renders services, exercises independent judgment, and is under the control of the facility for which the services are performed with respect to the result of the work, but not as to how it is accomplished. The advantage of this arrangement is that the surgeon typically retains the ability to once again become self-employed, still controls his or her professional corporation, and, under some instances, can practice outside of the independent contractor agreement.

Hospital support or stipend, while remaining in private practice

In many regions, hospitals are facing increasingly scarce physician coverage for critical services. As a result, hospitals have created support or stipend arrangements with private practices. The goal of these arrangements is typically to ensure physician coverage of critical services. The arrangement may be very similar to the example above of a surgeon joining a group of surgeons who have support from a specific hospital. The hospital support or stipend arrangement may also look similar to a capitation model and may be created around a specific service line. The hospital may pay the private practice surgeon(s) a set amount for each enrolled person assigned to them, per period of time, regardless of whether that person seeks care, or may pay an on-call stipend for emergency room coverage.

In this model the hospital does not buy the physician’s practice assets and the surgeon(s) does not have to relinquish control of the day-to-day operations of his or her practice. This arrangement also has unique barriers that should be examined in relation to the federal Stark Law, anti-kickback statute, and state physician self-referral laws.
Many surgeons are seeking hospital employment or other formal arrangement options that align clinical and financial interests. However, as financial, leadership, and market competition change for a given institution/hospital, conditions of employment often change as well. As a result different transitional situations can arise.

**Private practice to employment**

Physicians in private practice may choose to sell their practice for many reasons and enter an employment agreement with a hospital. They may also retain their practices but function as a de-facto employee by receiving stipends/support or by entering into a professional services contract (work as a contract employee).

**SELLING YOUR PRACTICE**

Selling a practice can be a complicated endeavor. In considering the transition from private practice to hospital employment, it is important that the organization’s care philosophy fit with the physician’s practice philosophy, vision, and values.

Medical practice valuation, which involves assigning a dollar value to the practice, is another step in the process of selling a practice. A professional, independent party should appraise the practice value regardless of whether the physician selling is going into retirement or will continue as an employee of the buyer. The practice value is usually the sum of tangible assets, intangible assets, and accounts receivable. From the start of negotiations the physician should have a good idea of the true value of the practice’s tangible and intangible assets, including the value of property owned, accounts receivable, and the perceived value to the community and his or her referring doctors. A good understanding of the value of the practice, along with a practice valuation prepared by an experienced independent third party, will provide significant bargaining leverage.

There are three general ways to value the purchase price for a practice: (1) based upon income; (2) based on value to the organization of future earnings and growth of service line revenue from the practice; and (3) based on cost or worth of the practice assets. Accounts receivable of the purchased practice are typically not purchased but rather relegated to a separate custodial agreement for collection over time. In today’s environment, there are minimal payments if any for intangibles like medical records or “goodwill” value. Selling your practice is more simply an asset purchase by the hospital (for example, value of ownership in an ASC, physical plant space, office equipment, other tangible values, and so on).

**REPURCHASE PROVISIONS**

Physicians in private practice may be reluctant to sell their practice to a hospital when entering employment without a provision for repurchasing if the employment relationship does not go well.

Under a repurchasing provision the physician will have the opportunity to repurchase the assets of the practice from the hospital. However, the hospital will often require a certain timeframe following the hospital’s purchase of the practice before the provision can be triggered. When considering a repurchase provision it is important to consider who has the rights to accounts receivable for services prior to repurchase, who will employ nonphysician personnel, who will assume practice office leases, and how electronic billing and medical record information will be transitioned.

**Employed surgeons renegotiating their contract**

Contract renegotiation typically occurs two to five years after the initial employment contract. However, some employment contracts include an automatic renewal provision (often referred to as an “Evergreen Clause”). It is pertinent to know whether your contract contains such a clause. After the initial contract term, a contract may automatically renew for another full term of two to five years without resigning. Furthermore, contracts that include an automatic renewal provision typically include a notice of nonrenewal provision that can be exercised by either party, generally 60 or 90 days. The notice of nonrenewal can be an important negotiating point.

For surgeons renegotiating their contract it is important to know what drives the hospital’s ability to sustain itself and the role the surgeon plays in the success of the hospital. Being aware of these interdependencies will be valuable during contract renegotiation.
For example, typically, a specialist will show an initial loss to the hospital of $100k–$200k on the practice side. It is pertinent that the surgeon understand his or her own productivity, compensation, and overhead. Often the hospital will displace practice overhead to balance losses elsewhere (service fees, hardware fees, software fees, and so on). Surgeons need know their hospital side worth in terms of contribution to the margin, referrals to in-network physicians (for example, radiation oncology, gastrointestinal, intensive care unit physicians, and so on), and revenue down the road in terms of ancillaries (for example, imaging, labs, and so on). Additionally, surgeons who are able to positively impact quality metrics, length of stay, readmission rates, and customer satisfaction surveys will have added worth to their institution. There are different resources that may be helpful in assessing and understanding one's value to the institution, with respect to productivity and salary.

The Medical Group Management Association publishes a benchmark survey report that includes data across multiple indicators, including specialty, geographic region, practice setting, years in specialty, and method of compensation.19 These reports may be helpful in equipping one's self during contract renegotiation. In short, remember the mantra “Value equals quality divided by cost.” The surgeon of today needs to know what his or her quality metrics are and how those outcomes are cost effectively attained. Positive patient feedback and top-notch customer satisfaction also add to your negotiating worth.

**Employed surgeons moving to a new hospital/institution**

In some instances, the surgeon finds him or herself in a position of either needing to move, or wanting to move. Depending upon the circumstances of need for relocation, there are several important items that should be considered. In some cases, the surgeon needs to relocate because the renegotiation process has not worked well, the situation in their current environment is untenable, and relocation appears to be the best and most viable option to take. In this instance, the surgeon should review their contract very carefully, and should involve legal counsel in that process, in order to understand all of the consequences and considerations of unwinding the current arrangement. Typically, those items include considering noncompete clauses, loan repayment, reconciliation of accounts receivable, and splitting of costs of tail coverage for malpractice insurance, among others. In some cases, the new hospital will pay some or all of these disengagement costs, while in other cases, the surgeon will have to bear the brunt of these expenses. Thus, good legal review and preparation, prior to disassociating from a hospital just makes good sense and will prevent future regrets.

**Residents or surgeons finishing fellowship: Choosing a practice**

For surgical residents or Fellows preparing to enter practice, choosing a practice may seem like a daunting task, especially since practice opportunities are multifaceted and range from private practice, academic practice, or hospital employment. Careful planning should go into which practice option best fits the surgical resident’s or Fellow’s needs.

Many key considerations are necessary to decide on a practice type, as discussed above. However, residents and surgeons seeking their first position might encounter circumstances requiring increased flexibility on salary, vacation, and geographic location.

Unlike more seasoned surgeons, the resident or Fellow will have little or no productivity data or quality metrics with which to negotiate, and it will be important to provide employers with information beyond just having passed the boards. Bringing additional skills and knowledge to the table such as involvement beyond clinical care will be an important component of initial negotiations.

The ACS has developed a practice management series for residents and young surgeons. The series is designed to educate and equip residents and young surgeons who have recently started practice with the knowledge to manage their personal surgical future with a focus on issues such as: how to select a career in private practice I and II; coding for surgical residents I and II; surgical financial management reports I; surgical financial management reports II, organizing a surgical practice, and understanding insurance processing; accumulation planning, goal planning, and risk management; negotiation; and changing the liability equation.20
Physician employment agreements play an important role in establishing the legal, operational, financial, and philosophical parameters of a physician’s medical practice. All contracts should be reviewed by an attorney experienced in contract law and within the state of which you will practice medicine. Each state has different laws on hospital employment of physicians.
Term and termination
It is critical to include term and termination provisions in every contract. The contract will be valid for a specified term, usually one to three years. At the end of the initial agreement, the contract will terminate, requiring a new agreement, or an automatic renewal provision may be included. It is pertinent to know whether your contract contains such a provision because typically automatic renewal provisions include a notice of nonrenewal that can be exercised by either party, generally 60 or 90 days.21

It is also important to include a termination provision. Without the ability to terminate the contract during the term, the surgeon may be responsible for things such as salary payments that are to be made during the term.22 The termination provision should clearly define the circumstances under which the surgeon or practice may be terminated or terminate the contract early. There are two types of termination clauses: termination with cause and termination without cause.

Termination with cause typically includes, but is not limited to: loss of license to practice medicine, loss of or failure to obtain a required board certification, committing health care fraud or other criminal activity, suspension, or failure to qualify for enrollment in a federal health care program (for example, Medicare), loss of or failure to qualify for medical liability coverage, or failure to obtain hospital privileges.

Termination without cause needs to be closely reviewed. This clause should be specific and have a mechanism for appeal. In general, it may require that two-thirds of the board validate the termination or provide an appeals process to a panel of physicians (presumably your peers) in order to settle the appeal. However, you need to be able to terminate for breach and this should be specifically laid out (in which case, a restrictive covenant/noncompete clause should not apply). Additionally, the surgeon may need to terminate without cause (it is likely that restrictive covenant would continue to apply).

Outside activities
The American Medical Association (AMA) suggests that it is important to read any clauses governing outside activities, including those done on personal time. This could make a difference in who receives royalties from creative or scientific endeavors.23 Certain nonpatient care fees that may be medically related and performed on your own time should be retained by the surgeon and also be outside the compensation calculation. Seminar honorariums and expert witness litigation fees are examples of this type of remuneration. Understanding your options and what can and cannot be done will be very important on the front end of any negotiation or contracting opportunity.

Additional consideration for academic employment
Academic surgeons may be expected to provide education, conduct research, and participate in scholarly activities as determined by the dean and department chair. Also, the surgeon is expected to practice clinical medicine.

Education and teaching stipends are determined by academic rank and specialty and are negotiable. Other revenue may be generated by private, intramural, or government grants. All inpatient and outpatient activities are charged accordingly.
Covenants to not compete/restrictive covenant

Covenants to not compete (restrictive covenant) are agreements that prevent competition against the employer. The three main factors of restrictive covenants are: scope of activity, range of activity, and period of restrictions.

Scope of activity: Restriction on practicing your specialty or specific procedures. The ACS suggests that scope of activity should not include teaching, working for insurance companies, or working in a noncompeting company.

Range of activity: Prohibiting practice within a certain radius from a location. A covenant that is too restrictive could mean that the only way a physician can change jobs is to move away from the region. The ACS suggests that range of activity should not prevent you from relocating within the same area.24

Period of restrictions: A set length of time in which you cannot compete.

Any restrictive covenant that interferes with the uninterrupted delivery of qualified surgical care to patients is considered unethical. Restrictive covenants should be specific with regard to:

1. The defined geographic area.
2. The duration of the restrictive covenant.
3. The presence of a restrictive covenant clause in subsequent contract renewals.

While the ACS recognizes the intent and the perceived necessity of restrictive covenants, surgeons are advised to review restrictive covenants contained in proposed contracts and to negotiate mutually agreeable terms. The ACS also recommends the review of all contracts with an attorney who is familiar with local laws and precedents prior to signing any contract.25

Medical liability tail

At one time, the tail cost would be paid by the hospital. However, many hospitals are now shifting this cost, in full, to the surgeon. It is important to know what the medical liability tail provision is in your contract, as this can be a large expense. Contracts may state the following: “The tail will be paid by the surgeon if he resigns voluntarily, or is terminated with cause, but it will be paid by the hospital if the physician is terminated involuntarily and without cause.”26 This provision should clearly specify the allocation of medical liability tail in the event of any termination.
Salary, benefits, and bonuses are a key component of hospital recruitment and retention of physicians. The full benefit package should be well defined and include moving expenses, life insurance, retirement plan contributions, vision, dental, disability, vacation, paid time off, sick days, maternity and paternity leave, and continuing medical education benefits. Keep in mind that everything is negotiable.

Salary
As discussed above, federal and state regulations have a significant impact on compensation agreements. The Stark Law limits compensation and other financial arrangements between physicians and other provider entities. However, there are still opportunities for surgeons to negotiate a fair and reasonable compensation arrangement. There are several salary models, including: guaranteed salary, base salary plus productivity bonus, Relative Value Unit (RVU) plus productivity bonus, productivity, and incentives/bonuses.

A typical current incentive model is based on work RVUs (wRVUs). In this type of arrangement, it is important to understand “fair and reasonable” and how your hospital is defining these terms. Numerous surveys are available but each have nuanced differences and must be vetted in advance. Other compensation incentives can be based on percent of gross charges or percent of net collections. Note that these models will make physician compensation increasingly dependent on payer mix and effective billing systems.

GUARANTEED SALARY
In this model the salary is 100 percent guaranteed regardless of productivity. This model is being offered less, as hospitals view it as a disincentive to productivity.

BASE SALARY PLUS PRODUCTIVITY BONUS:
As part of this model there is a guaranteed base salary, and there is a productivity bonus. It is important that the productivity bonus be based on objective, identifiable factors that are set in advance.

RVU PLUS PRODUCTIVITY BONUS
RVUs (and in particular wRVUs) reflect the relative level of time, skill, training, and intensity required of a physician to provide a given service. RVUs, therefore, are a good method for calculating the volume of work or effort expended by a physician in treating patients. A well patient visit, for example, would be assigned a lower RVU than an invasive surgical procedure. In connection with the RVUs there are typically productivity and quality measures used to determine the overall compensation and productivity.

Because of the use of RVUs in employed physician compensation, it is important that surgeons working in employment arrangements continue to be experts in coding. This will help to ensure the accuracy of RVU allocations. Many surgeons working in employment situations are under the misperception that coding is the sole responsibility of the employer. While employers might offer staff assistance in coding, it is important to know that no person is better situated than the surgeon to know what service was performed, and therefore, which codes should be submitted. It is imperative that employed surgeons continue educational efforts at accurate coding and to follow physician coding updates.

PRODUCTIVITY
This model bases compensation solely on physician productivity and there is no base salary. It is essential that the terms of the productivity calculation be based on objective and identifiable factors.

INCENTIVES/BONUSUSES
Incentive-based bonus compensation may also be a component, typically based on productivity. If productivity is the driving factor for bonus compensation, productivity should be well defined. Incentives can also be set up for each added component. For example, teaching could have metrics for a certain number of lectures or grand rounds. Research and academic institutions may incentivize publications and presentations. An incentive may be set around administrative duties geared toward promoting committee involvement.

Benefits
The typical package of benefits may include health insurance, malpractice insurance, dues, licenses, journals, and Continuing Medical Education (CME) costs. In addition, the benefit package should include vacation and continuing medical education time off. Typically, there is also allotted sick time.

However, benefits are always negotiable. Surgeons should negotiate dollars for coverage of CME, professional society memberships and annual meetings, maintenance of certification, and ongoing participation in local, regional, and national organizations. These additional benefits will be critical to enhancing quality and the institution or practice should support these endeavors or at minimum provide protected time (not vacation) for such meetings.
CONCLUSION

Much has been learned about physician employment during the past 20 years, including the fact that physician employment generally increases in response to economic and other market forces. The ACS expects that as reimbursement rates continue to stay stagnant, as alternative payment models geared toward care coordination networks are implemented, and as overhead costs continue to rise, the number of hospitals seeking to employ surgeons and the surgeons seeking hospital employment will continue to increase.

Successful hospital-surgeon integration does not just happen; rather it is a process that will require time and research. After examining the current landscape of hospital employment of surgeons, the ACS realizes that there are a lot of options for surgeons seeking hospital employment, and there is no one size fits all arrangement. We offer the following tips:

1. Everything is negotiable, including salary, benefits, bonuses, staff, facilities, resources, and new physician hires.

2. Ask an attorney who is familiar with employment contracts to review the contract (which should be provided initially in a modifiable format).

3. Include all written and verbal agreements in the contract.


The decision to become hospital employed is generally complex, intensive, and critically important to the surgeon’s career. While we have addressed some of the important issues when considering hospital employment, there are many other considerations to keep in mind. However, if the concepts demonstrated above are learned and utilized, the ultimate outcome is likely to be a successful alliance that protects the provider and benefits both parties by creating a trusting, sustainable partnership.

The ACS will continue developing resources for Fellows to address the needs in each of these areas.
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SURGEONS
AND BUNDLED PAYMENT MODELS:
A PRIMER FOR UNDERSTANDING ALTERNATIVE PHYSICIAN PAYMENT APPROACHES

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# Table of Contents

**Introduction** .................................................................................................................................................................53

**What Is Surgical Bundled Payment?** ..........................................................................................................................53

**Existing Bundled Payment Programs** .........................................................................................................................54

  - Congressionally Mandated Initiatives..........................................................................................................................54
    - Acute Care Episode (ACE) Demonstration............................................................................................................54
    - Medicare Bundled Payments for Care Improvement Initiative ........................................................................54
    - National Pilot Program on Payment Bundling ....................................................................................................56

  - Private Sector Bundled Payment Programs....................................................................................................................56
    - Geisinger...........................................................................................................................................................................56
    - BlueCross BlueShield of Massachusetts Alternative Quality Control..........................................................56

**Transplant Case Study** ............................................................................................................................................................57

**GSCRC Surgical Bundled Care Project** .........................................................................................................................58

**Issues to Consider when Developing a Bundle** ............................................................................................................59

**Ten Questions to Consider Regarding Bundled Payment** ..........................................................................................62

**Additional Resources** ...........................................................................................................................................................63

**References** ...........................................................................................................................................................................63

**Addendum A: GSCRC Surgical Bundled Care Project** ....................................................................................................64
INTRODUCTION

The American College of Surgeons (ACS) General Surgery Coding and Reimbursement Committee (GSCRC) developed this Bundled Payment Primer (Primer) to inform ACS Fellows about the concept of bundled payment and the effect bundled payment policies could have on surgical practices.

Medicare physician reimbursement in the United States has been criticized for rewarding physicians for the quantity of care they provide rather than for quality or value of services. As a result, proposed policy changes include models of delivery of health care and payment that are centered on coordination of care. This focus on coordination of care is intended to increase efficiency while maintaining quality.

Bundled payment is one approach that both Congress and the private sector are exploring in an effort to promote more coordinated and efficient care across different providers or settings. In bundled payment models, a single payment is made to one entity for the entire episode of care and the bundled payment is distributed among the providers involved in providing health care services during the episode. For example, this could involve payment for a surgical procedure that merges Medicare Part A and Part B, resulting in the combination of physician fees and the hospital reimbursement for that procedure.

It is important for ACS Fellows to be aware of existing bundled payment programs and those under development. Fellows should also know how such programs are implemented in order to understand how surgeons fit into these new payment models. This Primer introduces the concept of a surgical bundled payment, describes existing bundled payment programs, discusses the GSCRC Surgical Bundled Care Project, and presents concepts to consider in deciding whether to participate in a bundled payment model. Surgeon knowledge of these programs and their implications will be critical to the successful implementation of bundled payment as an alternative payment model for surgical procedures.

WHAT IS SURGICAL BUNDLED PAYMENT?

Unlike traditional fee-for-service medicine, under a bundled payment approach the surgeon, other doctors, the hospital, and possibly other health providers and facilities share one fee for a surgical procedure or for treating a condition.

The goal of bundled payment is to encourage health care providers to coordinate care in an effort to deliver care more efficiently and to improve quality and outcomes. Bundled payments are typically either related to a procedure or clinical episode of care, such as colon resection, or to a specific condition, such as colon cancer, over a defined period of time. For example, a colon resection episode of care bundle could include surgical preparation, diagnostic tests, anesthesia, the surgical procedure, operating room fees, radiological examinations, laboratory tests, and other physician services. A colon cancer condition bundle could include the services that are part of the colon resection bundle with the addition of chemotherapy, rehabilitation, readmissions, and postacute care.

Although in this example the costs of the surgical procedure and associated follow-up care are less than the costs of the entire episode of care for treating colon cancer, it is important for surgeons to know how their services fit into the overall structure of the bundle in order to understand how they can impact the efficiency of the care delivered and effectively negotiate the distribution of the bundled payment. In this way, surgeons have the capacity to be key leaders in the future of bundled payments for surgical care.
Despite the recent attention given to bundled payment, it is not a new concept. Global capitation, which brings together all costs for a patient’s care, was a payment method in early managed care programs. This model failed in large part because it relied on a gatekeeper as a method for reducing costs. In the future, experts will determine what represents high-quality and cost-effective care, thus attempting to avoid the pitfalls of the global capitation approach.

Another established form of bundled payment is diagnosis-related groups for hospital care, introduced in the 1980s as part of the prospective payment system under Medicare. A more current example of bundled payments is the global surgical package. Following is a description of some of the more recent major public and private sector bundled payment programs, along with a discussion of an important case study, the bundled payment for transplant surgery.

Congressionally Mandated Initiatives

**ACUTE CARE EPISODE (ACE) DEMONSTRATION**

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 authorized the Acute Care Episode (ACE) Demonstration. This demonstration, implemented by the Centers for Medicare & Medicaid Services (CMS) is a three-year project that tests the use of a global payment for an episode of care covering all hospital and physician services associated with a patient’s inpatient stay.

The ACE Demonstration is limited to physician-hospital organizations (PHOs) with at least one physician group and at least one hospital and that routinely provides care for at least one group of selected orthopaedic or cardiac procedures, namely: (1) hip/knee replacement or revision surgery; or (2) coronary artery bypass graft (CABG) surgery or cardiac intervention procedure (pacemaker and stent replacement). Under the ACE Demonstration project, the Medicare program pays a single amount to the PHO to cover both hospital and physician services for the specific orthopaedic and cardiac procedures, and then the PHO divides the payment between the hospital and the physicians. The hospital, physicians, and patients are allowed to share in any savings the PHO achieves. The ACE Demonstration is limited to five hospitals and health systems: Baptist Health System in San Antonio, TX; Oklahoma Heart Hospital in Oklahoma City, OK; Exempla Saint Joseph in Denver, CO; Hillcrest Medical Center in Tulsa, OK; and Lovelace Health System in Albuquerque, NM.

The first ACE sites began their programs in May 2009, and the last sites began in November 2010. The programs at each site run for three years. Given the late start date of some of the programs, which were scheduled to run through most of 2012, the official CMS results of the ACE Demonstration are not yet available. Preliminary results from Hillcrest Medical Center and Lovelace Health System (both part of Ardent Health Services, based in Nashville, TN) indicate that over the first two years of the demonstration, Hillcrest saved $1.59 million on cardiac and orthopaedic services. At the same time, key quality measurements remained stable and some improved.

Officials at Ardent Health Services indicated that the two health systems have averaged 7 percent savings, or $300,000 per year, in orthopaedic implants and similar savings were achieved with the cardiology implants. Savings centered primarily on implants and supplies. Early results from Baptist Health System showed that in the first 18 months of the demonstration, Baptist Health System saved $4 million in total device and supply spending, passing on $550,000 to the 150 physicians participating.

**MEDICARE BUNDLED PAYMENTS FOR CARE IMPROVEMENT INITIATIVE**

The Medicare Bundled Payments for Care Improvement Initiative (Bundled Payments Initiative) is implemented under the authority of the Center for Medicare & Medicaid Innovation (CMMI). The Bundled Payments Initiative is designed to encourage doctors, hospitals, and other health care providers to work together to better coordinate care for patients both when they are in the hospital and after they are discharged. The Bundled Payments Initiative includes four models where CMS and providers would agree to a target payment amount for a defined episode of care. The following table describes these four models:
EXISTING BUNDLED PAYMENT PROGRAMS

Results of the CMMI Bundled Payments Initiative are not yet available because this program is in the early stages of implementation.

### TABLE 1: CMMI BUNDLED PAYMENTS INITIATIVE FOUR MODELS

<table>
<thead>
<tr>
<th>Model</th>
<th>Episode of Care</th>
<th>Medicare Payment</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1: Retrospective Acute Care Hospital Stay Only</td>
<td>The episode of care is an inpatient stay in a general acute care hospital. It includes most Medicare fee-for-service discharges for the participating hospitals.</td>
<td>Medicare will pay the hospital a discounted amount based on the payment rates established under the Inpatient Prospective Payment System, and physicians would be paid separately under the Medicare Physician Fee Schedule. Hospitals and physicians will be permitted to share gains arising from better coordination of care.</td>
<td>Participation will begin as early as April 2013, and no later than January 2014.</td>
</tr>
<tr>
<td>Model 2: Retrospective Acute Care Hospital Stay Plus Postacute Care</td>
<td>The episode of care is an inpatient stay plus postacute care that would end, at the applicant’s option, either at a minimum of 30 or 90 days after discharge. Participants can select up to 48 different clinical condition episodes.</td>
<td>In Models 2 and 3, the bundle would include physicians’ services, care by the postacute provider, related readmissions, and other Part B services included in the episode definition such as clinical laboratory services; durable medical equipment, prosthetics, orthotics, and supplies; and Part B drugs. In both Models 2 and 3, the target price will be discounted from an amount based on the applicant’s fee-for-service payments for the episode. Payments will be made at the usual fee-for-service payment rates, but the aggregate Medicare payment for the episode will be reconciled against the initial target price. If fee-for-service payments exceed the target price, the participants must repay Medicare the difference; if actual costs are lower than the target price, providers can keep the difference.</td>
<td>Implementation of Models 2, 3, and 4 is divided into two phases: Phase 1 (January–July 2013) is a no-risk period where CMS and participants prepare for implementation and assumption of risk; Phase 2 (beginning in July 2013) is the phase where participants assume financial risk.</td>
</tr>
<tr>
<td>Model 3: Retrospective Postacute Care Only</td>
<td>The episode of care would being at initiation of postacute care with a participating skilled nursing facility, inpatient rehabilitation facility, long-term care hospital, or home health agency within 30 days of discharge from the inpatient stay and would end either a minimum of 30, 60, or 90 days after the initiation of the episode. Participants can select up to 48 different clinical condition episodes.</td>
<td></td>
<td></td>
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<tr>
<td>Model 4: Prospective Acute Care Hospital Stay Only</td>
<td>The episode of care is an inpatient stay in a general acute care hospital. Related readmissions for 30 days after hospital discharge will be included in the bundled payment amount. Participants can select up to 48 different clinical condition episodes. Model 4 is the only model that is prospectively established and therefore presents the most risk to providers.</td>
<td>CMS would make a single, prospectively determined bundled payment to the hospital that would encompass all services furnished during the inpatient stay by the hospital, physicians, and other practitioners. Physicians and other practitioners would submit “no pay” claims to Medicare and would be paid by the hospital out of the bundled payment.</td>
<td></td>
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NATIONAL PILOT PROGRAM ON PAYMENT BUNDLING

The Patient Protection and Affordable Care Act (ACA) requires the establishment of a National Pilot Program on Payment Bundling for the Medicare program by January 1, 2013.9 The ACA requires the establishment of a pilot program for integrated care during an episode of care provided to an applicable beneficiary in order to improve the coordination, quality, and efficiency of health care services under Medicare. The pilot’s duration will be five years. CMS has not yet released details of this pilot’s implementation.

Private Sector Bundled Payment Programs

The private sector has been testing bundled payment for many years. Although there are several well-established private bundled payment programs, two of the most successful are described below.

GEISINGER

Geisinger Health Plan instituted its ProvenCare bundled payment program in 2006. Geisinger is a physician-led health care system that includes several hospitals, outpatient centers, and community practice locations in central and northeastern Pennsylvania. ProvenCare began with a bundle for nonemergency CABG procedures and included the preoperative evaluation, all hospital professional fees, and management of any complications (including readmissions) occurring within 90 days of the procedure. ProvenCare was then expanded to the following additional programs: hip replacement, cataract surgery, percutaneous coronary intervention/angioplasty, perinatal care, bariatric, low back pain, and erythropoietin management.10 ProvenCare has received a great deal of national attention and is considered by many to be a successful pioneer in bundled payment. According to at least one study, the ProvenCare program for CABG procedures has resulted in increased compliance with best practices, improved trends in 30-day clinical outcomes, improved quality, decreased length of stay, decreased readmission rate, decreased mean hospital charges, and decreased complications.11

BLUECROSS BLUESHIELD OF MASSACHUSETTS ALTERNATIVE QUALITY CONTRACT

In 2009, BlueCross BlueShield of Massachusetts (BCBSMA) introduced the Alternative Quality Contract (AQC) to provider and hospital groups in Massachusetts.12 As of May 2012, more than three quarters of BCBSMA’s in-state health maintenance organization (HMO) physician network is participating in the AQC. These doctors care for approximately 77 percent of BCBSMA’s members.13 The AQC is a global payment system tied to nationally accepted measures of quality. The payment rate is set for all services, and costs associated with a patient’s care are risk-adjusted for patient’s health status, sex, and age, and updated annually for inflation. The AQC covers all conditions that a BCBSMA member may present with, includes all services that the member may require across the continuum of care, and rates performance based on a detailed list of process, outcome, and patient experience measures. The contract also includes a pay-for-performance component.
where providers are eligible for an additional 10 percent of total payment if they meet certain quality benchmarks.\textsuperscript{14}

Results of the AQC show that the rate of increase in spending slowed compared with control groups. Savings were accounted for by lower prices achieved through shifting procedures, imaging, and tests to facilities with lower fees, as well as some reduced utilization. The quality of care also improved compared with control organizations, especially with chronic care management, adult preventive care, and pediatric care. These results indicate that a bundled payment with pay-for-performance can begin to slow growth in medical spending while improving quality of care.\textsuperscript{15}

**Transplant Case Study**

According to a Government Accountability Office (GAO) report, bundled payments for transplants is standard procedure and has been the industry practice for more than 20 years.\textsuperscript{16} The main reasons why transplant lends itself well to bundled payments are that transplants are high-cost procedures, resulting in the potential for increased cost savings; they have clearly defined start and end points, which is useful in defining an episode of care; and they have well-established clinical protocols for care and well-defined outcome measures.\textsuperscript{17} Bundled payments for transplants typically include all hospital, physician, and ancillary services for all phases of the transplant episode, which include: evaluation, organ procurement, hospital admission for the procedure, readmissions, and follow-up care. The transplant episode can vary from 30 to 365 days.

Payors generally do not adjust for the severity of the patient’s condition beyond the inherent severity adjustment included in the Medicare diagnosis related group. However, payors typically include outlier provisions, which are based on a limit of total days or a threshold of total charges for the episode to limit the financial risk to providers. The payors often provide additional per diem payments when outlier thresholds are reached.\textsuperscript{18}

A unique feature of transplant surgery is the transparency of outcomes. For more than two decades, transplant outcomes have been posted on a public website. The program outcomes are scrutinized by both CMS and commercial payors as they are compared with expected risk-adjusted outcomes, and statistically significant variances between actual and expected outcomes are flagged. These published outcomes remain the yardstick of performance for transplant centers. These outcomes are neither surgeon-specific nor specific to the surgical team, rather are reflective of care rendered by the entire transplant team, both for inpatient and outpatient care over a period of years. Thus, the transplant centers have demonstrated that by emphasizing alignment between physicians, and between physicians and hospitals, they can provide blameless care. However, if the care provided falls below the expected threshold, CMS will decertify the center, and the commercial payors will remove the center from their networks.
Given the increased attention on bundled payment as an approach to payment reform, the ACS General Surgery Coding and Reimbursement Committee (GSCRC) formed a workgroup with the goal of developing a process for creating clinically coherent bundled payment models and analyzing the potential opportunities and barriers in a bundled payment model. The data utilized for this project had several limitations.

The project was centered on two condition-specific procedures:
- Colon resection for colon cancer
- Mastectomy for breast cancer

The methods and findings are useful for surgeons to better understand not only their contributions to the bundle but also the services provided by other physicians. This information is critical for surgeons considering participating in bundled payment models. This project also brings to light the types of questions and issues to consider when examining bundled payment options.

A summary of the GSCRC Surgical Bundled Care Project is found in Addendum A.
ISSUES TO CONSIDER WHEN DEVELOPING A BUNDLE

Through the GSCRC’s analysis of existing bundled payment programs and those in development, and from the experience with the GSCRC Surgical Bundled Care Project (described in detail in Addendum A), the workgroup identified broad issues to consider when developing a bundle or determining whether to participate in a bundled payment program. These concepts are discussed here.

Condition or Procedure: Typically, the creation of a bundle first requires the determination of whether to center the bundle on a procedure or a condition. An example of a procedure-specific bundle is a bundle for colon resection, and an example of a condition-specific bundle is a bundle for treatment of colon cancer. The role of the surgeon could vary dramatically based on the type of bundle selected. Specifically, the surgeons’ share of the bundle and ability to direct the care provided in the bundle would generally be much greater in a surgical procedure-specific bundle compared with a condition-specific bundle, even if the condition-specific bundle included a surgical procedure. However, a condition-specific bundle could result in greater efficiencies resulting in greater cost saving opportunities due to the ability to reduce unnecessary services provided across a broader time and care delivery continuum.

Distinct advantages and disadvantages exist for each type, so it is important to know in advance whether an arrangement involves a procedure-specific or condition-specific bundle.

Selecting Procedure/Condition to Bundle: There are many factors that go into the selection of the procedure or condition for the selection of the proposed bundle. The GSCRC developed a list of 12 criteria for selection of procedure-specific bundles. Examples of some important criteria are listed in Table 2, but for a full list of the GSCRC criteria, refer to Addendum A.

### TABLE 2: SELECTED CRITERIA FOR A PROCEDURE-SPECIFIC BUNDLE

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>1.</td>
<td>Existence of adequate and relevant data for analysis</td>
</tr>
<tr>
<td>2.</td>
<td>Procedures should be elective, nonemergent</td>
</tr>
<tr>
<td>3.</td>
<td>Procedures should be those of high volume and/or high expenditure</td>
</tr>
<tr>
<td>4.</td>
<td>Procedures should be performed across the country and not isolated to certain areas or institutions</td>
</tr>
<tr>
<td>5.</td>
<td>Procedures should have a measurable variation in resource use</td>
</tr>
</tbody>
</table>

**Services Included in the Bundle:** Surgeons should know what services, both surgical and nonsurgical, will be included in the bundle. The bundle participants should identify the specialties of physicians and ancillary providers who will be involved in the proposed bundle, along with all the services included in the bundle. The bundle should also have well-defined provider responsibilities so that providers know exactly what is required of them in order to produce successful outcomes, namely efficient and high-quality care. Surgeons should understand what aspects of the bundle are under the control of the hospital, the surgeon, and other practitioners. If more of the bundle is under the surgeons’ control, the surgeons have greater control over the services provided, and if less of the bundle is under the surgeons’ control, the surgeons have less control over the services provided. The analysis of the data in the GSCRC Surgical Bundled Care Project showed that more services than expected were being provided to patients by more physicians than anticipated.

**Costs of Provider Services:** The data in the GSCRC Surgical Bundled Care Project show that in both the colon resection for cancer and mastectomy for cancer analyses, the core procedure costs and surgeons’ fees for the colon resection or the mastectomy were relatively stable regardless of the length of the episode period examined (in large part related to the already existing Medicare global surgical payments). In both the case of the shortest episode, three days preadmission/30 days postdischarge, and the longest episode, 30 days preadmission/90 days postdischarge, payments to the surgeons were found to be generally the same. However, additional unanticipated provider services were identified, such as daily inpatient hospital evaluation and management (E/M) services provided by multiple different specialties.

Further, in both the colon resection for cancer and mastectomy for cancer analyses, postdischarge care and readmissions accounted for large variations in cost when the episode length was expanded from 30 days to 90 days postdischarge. This information is critical because surgeons could be approached to participate in bundled payment arrangements of various types (procedure versus condition) and with differing episode periods. Based on the findings of the Surgical Bundled Care Project, however, it is clear that surgeons should be able to coordinate the care and reduce unnecessary services to ensure appropriate reimbursement for the surgical procedure portion of the bundle.
Timeframe of Bundle: Bundles can vary greatly in episode length. In many of the currently existing bundled payment models, the episode length is three days preadmission and 30 days postdischarge. On the other hand, some condition-specific bundled payment models have longer time periods. Bundle participants should be aware that increasing the timeframe also increases risk.

Need for Data: The bundle participants must have access to enough historical data to accurately assess the risk that will be assumed by entering into the bundled payment agreement. Unless the participants have access to detailed utilization and payment information, it is difficult to accurately predict the appropriate costs and payment for a bundled service. These data, in addition to analysis by clinical content experts, are necessary for determining how much variation is warranted and which events are preventable, which will help determine whether certain services should be included in the bundle.

One of the challenges identified in the GSCRC Surgical Bundled Care Project was the amount of data analysis required to identify both the variation in resource use and opportunities for cost savings. The GSCRC required access to a significant amount of data and technical expertise to manipulate these large data sets. The particular Medicare sample (discussed in more detail in Addendum A) that GSCRC utilized contained significant extraneous data and charges that were difficult to distill. As such, surgeons considering a bundled payment approach must not only have access to the appropriate data but also should have the financial and technical assistance to analyze the data. Also, when participating in a bundled payment model, it is critical to have timely information to understand utilization and outcomes.

Quality Measures: Bundled payment approaches must ensure that quality of care provided in association with the bundle does not diminish. One way to maintain quality is to include quality measures in the definition of the bundle as a way to counter any incentives to reduce appropriate care. Quality, safety, and patient experience of care measures must be incorporated and coordinated with resource use metrics so that the bundled payment model is not simply a capitated payment model. Such quality measures should also be included to ensure that necessary services are provided that can prevent unnecessary subsequent care. Bundle participants should be aware of whether quality measures are part of the bundle and if so, whether the measures are appropriate. Generally speaking, outcomes, rather than process, and clinical, rather than administrative, measures that are properly risk-adjusted and have received National Quality Forum (NQF) or other multi-stakeholder third-party endorsement are preferable.

Who Administers the Bundle: Often a central organization holds and administers the bundled payments and claims. It could be a hospital financial department, an independent practice association (IPA), or a third-party administrator. The administrative entity should be capable of receiving, storing, and transmitting information on pricing of cases, payments, types of providers, contracts, bundling rules, and length-of-stay data. It is important for bundle participants to know what entity will administer the bundle because that entity will be responsible for calculating payments to the providers in the bundle in addition to numerous other cost calculations related to managing the bundle.

A related issue is that bundled payments tend to be most effective in integrated delivery systems, where it is easier to align incentives across providers. Creating and maintaining the bundled payment model, determining the cost allocation, and the administration of the bundle is more challenging for surgeons participating in nonintegrated care delivery systems.

Attribution: Assignment of responsibility for care provided is important for both quality and payment purposes. This determination is more straightforward for some conditions. For example, it could be easier to determine the relative involvement of hospitals, postacute care facilities, specialists, and other physicians for a hip replacement compared with a heart attack because hip replacements have more predictable care assignments. Bundled payment programs have handled attribution differently. Some were at liberty to allocate the bundled payment as the administrator deemed necessary, and others based the allocation of payment on the share of what the providers’ fees would have been. It is important for bundle participants to have a clear understanding of the attribution methodology that will be used.
Gainsharing: Often bundled payment arrangements include the concept of gainsharing. Gainsharing refers to an arrangement in which a hospital gives physicians a percentage share of any reduction in the hospital's costs for patient care attributable in part to the physicians' efforts. This means that if the costs of care during the episode or agreed timeframe are less than the bundled payment amount, the providers keep and share the difference. Gainsharing is used to reward providers for achieving cost and quality goals. It is also possible that costs exceeding the bundled payment amount could result in a shared loss among bundled payment participants.

Currently, Federal laws known as the Civil Monetary Penalties, Antikickback, and Physician Self-Referral, statutes generally prohibit certain gainsharing arrangements. Therefore, participants in the bundle should be certain whether such an arrangement is permitted under the law. While exceptions have been granted in order for the arrangements to exist, it is important to know whether gainsharing is incorporated into any program in which a surgeon is participating. If so, bundle participants should know how much they can earn, what performance targets must be met in order to earn a share of the savings, how much they could lose if performance targets are not met, and that the gainsharing agreement is legally sound.

Risk Adjustment: Risk adjustment is a statistical process used to identify and adjust for variations in patient severity of illness. It could take into account differences in patient demographics, co-morbidities, geographic location, socioeconomic status, and so on. Proper risk adjustment ensures that providers are compensated for treating patients with more complex conditions. Risk adjustment is a complicated concept and surgeons should evaluate the strength of the risk adjustment of a bundled payment arrangement or have some other assurance that the agreement is adequately risk adjusted before entering into a contract for bundled payment.

Bundled Payments and Accountable Care Organizations

Whereas both bundled payments and accountable care organizations (ACOs) seek to facilitate coordinated, integrated, and efficient care, these two alternative payment methodologies are not the same. Following is a brief comparison of the Medicare Shared Savings Program and the CMMI Bundled Payment Initiative as a way to highlights some of the differences.

Under the Medicare Shared Savings Program, ACOs are responsible for the health of a population, which is defined as patients who receive care from primary care physicians who are part of the ACO. All providers continue to be paid by Medicare through their normal payment methodology, fee-for-service. The ACO has incentives to implement care management processes that improve the health of the population while maintaining quality and reducing cost. When a minimum savings amount is attained, the ACO and Medicare will share in the savings. An ACO is also required to be established as a unique legal entity.

Rather than focusing on the care of a population, the CMMI Bundled Payment Initiative focuses on improving efficiency and thereby reducing hospital, physician, and/or postacute care utilization for defined episodes of care. Assuming legal barriers to gainsharing have been overcome, under the CMMI Bundled Payment Initiative, the bundle participants may share in the savings but need not share the savings with Medicare. A bundled payment contracting organization will be required to accept a discounted payment for all providers involved. A payment for the episode will be made by CMS directly to the contacting organization, which is responsible for dividing the payment among the physicians, hospitals, and/or other providers involved. The providers will not be paid directly by CMS using fee-for-service. Therefore, the bundled payment contracting entity will adjudicate payments to these providers according to the methodology determined by that entity. Organization as a separate legal entity is not required.
Following is a summary of the information contained in this Primer in the form of questions to consider regarding bundled payment.

1. Is the bundle centered on a procedure or a condition?

2. What services are included in the bundle?

3. Are the costs of the services provided and ordered by the surgeon relatively stable if different episode lengths are considered?

4. What is the timeframe of the bundle?

5. Will adequate, appropriate, and analyzable data be available before and during the bundled payment arrangement?

6. What quality measures will be included in the bundle?

7. What entity will administer the bundle? What attribution methodology will be used?

8. Will there be gainsharing? If so, how much could surgeons earn or lose?

9. Is the bundle properly risk-adjusted?

10. How will the care be monitored to reduce unnecessary services?
ADDITIONAL RESOURCES

CMS ACE Demonstration: cms.gov/Medicare/Demonstration-Projects/DemoProjectsEvalRpts/Medicare-Demonstrations-Items/CMS1204388.html

CMMI Bundled Payments for Care Improvement Initiative: innovation.cms.gov/initiatives/bundled-payments/index.html

Geisinger and ProvenCare: geisinger.org/provencare/


REFERENCES


5. Id.


17. Id at 5.

18. Id.
Background

Given the increased focus on bundled payment as an approach to payment reform, the American College of Surgeons (ACS) General Surgery Coding and Reimbursement Committee (GSCRC) formed a workgroup to develop a process for creating clinically coherent bundled payment models and analyzing the potential opportunities and barriers in a bundled payment model. The workgroup is composed of surgeon experts in quality and coding and reimbursement methodology. The surgeons are clinically active in the fields of general, pediatric, vascular, laparoscopy/endoscopy, breast, colorectal, trauma, oncology, and transplantation.

The workgroup's tasks included: (1) determining the resources and expertise necessary for developing clinically coherent surgical bundles; (2) developing general principles regarding the selection, optimal structure, and function of surgical bundles; (3) providing robust guidelines about which procedures or condition characteristics must be present to construct a usable bundle; and (4) providing insight about which characteristics might make a procedure or condition a poor candidate for a bundled payment model. Although the Congressionally mandated and private sector bundled payment initiatives served as context, the GSCRC Surgical Bundled Care Project was not tailored to any specific initiative.

This addendum describes how the workgroup selected procedures to bundle, how the workgroup selected codes to include in the bundles, and the take-aways from the GSCRC Surgical Bundled Care Project.

Selected Procedures/Conditions

Typically, the creation of a bundle first requires the determination of whether to center the bundle on a procedure or a condition. The GSCRC focused on a third alternative: the creation of a condition-specific procedure bundle. This hybrid bundle was required because of the need to crosswalk codes between hospital- and physician-based coding systems as a way to determine what services would be included in the bundle. The GSCRC found that this crosswalking was best achieved by focusing on a procedure within the context of a specific condition.

The GSCRC next created a list of criteria to determine which procedures would be appropriate candidates for bundling. Surgical procedures for bundled payment should have many or all of the 12 criteria shown in Table 1.

| 1. Adequate and relevant data for analyses   |
| 2. Elective, nonemergency procedures       |
| 3. High volume, high expenditure           |
| 4. Procedures performed across the country and not isolated to only certain areas or institutions |
| 5. Existence of evidence-based or appropriateness criteria |
| 6. Established measurable processes of care or performance measures |
| 7. Ability of the surgical patient or outcomes to be risk adjusted |
| 8. Measureable variation in resource use    |
| 9. Opportunity for cost savings            |
| 10. Reasonable predictability of costs      |
| 11. Low vulnerability to CPT/ICD/DRG upcoding or miscoding |
| 12. Include the involvement of multiple providers in the delivery of care |

Based on these criteria, the GSCRC selected two procedures to frame candidate bundles: colon resection for colon cancer and mastectomy for breast cancer. These procedures were selected because they are high volume, widely performed, involve several medical and surgical specialties during the episode, have established processes of care to monitor quality of care, and are generally elective, nonemergency procedures. In addition, because these procedures are common in the elderly, they have the added advantage of abundant Medicare Part A and Part B data.
Episode Periods

The GSCRC sought to select an episode period for each procedure that was broad enough to capture utilization and cost variation, yet narrow enough so that the key physicians involved could influence the care provided and that accurate attribution of this influence was possible. As such, the GSCRC examined data associated with four potential episode periods:

- Three days preadmission and 30 days postdischarge
- 30 days preadmission and 30 days postdischarge
- Three days preadmission and 90 days postdischarge
- 30 days preadmission and 90 days postdischarge

Data

The GSCRC utilized the Medicare Provider Analysis and Review (MedPAR) Limited Data Set file with 5 percent claims (LDS 5% file) as core data and the Medicare Limited Data Set Date file (LDS Date file), both from 2009. The LDS Date file contains de-identified beneficiary level health information. These CMS data sets are publicly available, subject to privacy release approvals. The analysis was restricted to beneficiaries with both Medicare Parts A and B and did not include data related to Medicare Parts C or D. The GSCRC also used the Berenson-Eggers Type of Service (BETOS) codes and descriptions to help analyze groups of Current Procedural Terminology (CPT)* codes. CMS developed the BETOS coding system to analyze growth in Medicare expenditures. The BETOS coding system assigns every Level I and Level II Healthcare Common Procedure Coding System (HCPCS) code to a single BETOS code, which represents a clinical category.

The LDS data that the GSCRC utilized had inherent limitations. Because it was not possible to obtain entire files on each patient, the findings were based on the use of proxies, and the GSCRC had to make assumptions to map services back to a particular patient.

Selected Codes and Methodology

The GSCRC sought to obtain Medicare claims data on all services that are performed for patients receiving colon resection for cancer and mastectomy for cancer. The initial goal was to identify all of the care provided to patients who received a colon resection specifically for colon cancer and a mastectomy specifically for breast cancer. The GSCRC used the following steps to identify this care:

1. The GSCRC selected specific CPT codes, International Classification of Diseases, Ninth Revision (ICD-9) codes, and the related Medicare Severity-Diagnosis Related Groups (MS-DRGs) (the GSCRC collectively referred to these as “index codes”) for the purposes of identifying cases of colon resection and mastectomy for which all Part A and Part B claims to be collected from the data.

2. The “index” CPT and ICD-9 codes were also used to cross-reference and confirm the selection of “index” MS-DRGs into which colon resections or mastectomies fall.

3. The cases in the LDS 5% file associated with the “index” MS-DRGs were then further refined to only include the beneficiaries with admissions and discharges that occurred during a time window that would capture the spectrum of services received during the course of treatment.

4. With this inventory of services (listed by BETOS code description), the workgroup could determine which services provided might appropriately be included in the candidate colon resection for cancer or mastectomy for cancer bundles.

*All specific references to CPT (Current Procedural Terminology) codes and descriptions are © 2008 American Medical Association. All rights reserved. CPT is registered trademark of the American Medical Association.
Colon Resection for Cancer:

Three of the broad findings related to the colon resection for cancer include:

1. The **core procedure costs** and **surgeons’ fees** were relatively stable regardless of the length of time of the episode period.

2. **Postdischarge care** and **readmissions** accounted for large variations in cost when the episode was expanded. Based on the available data, the GSCRC found that increasing the episode of care postdischarge from 30 days to 90 days resulted in an increase by 27 percent of costs captured by the bundle. This overall increase is broken down by: surgeon cost (up 9 percent), readmission cost (up 66 percent), and other physician costs (up 71 percent), shown in Figure 1.

3. Regardless of the length of the episode period, the most costly service (as defined by BETOS description) for colon resection for cancer was not payment for the surgical procedure itself but for "hospital visit–subsequent," with internal medicine providing the plurality of those services.

FIGURE 1: INCREASING THE EPISODE OF CARE POSTDISCHARGE FROM 30 DAYS TO 90 DAYS

- Surgeon cost: 9% up
- Readmission cost: 66% up
- Other physician cost: 71% up

Increasing the episode of care postdischarge from 30 days to 90 days resulted in an increase by 27% of costs captured by the bundle.
Figure 2 shows overall Part A and Part B spending for a colon resection episode of three days preadmission/30 days postdischarge. Looking at all Part A and Part B spending for these cases, the payments made to the surgeon only account for 3 percent of the overall spending.

Figure 3 shows overall Part A and Part B spending for a colon resection episode of 30 days preadmission/90 days postdischarge. Note that the spending attributed to general surgeons and colorectal surgeons remains 3 percent, the same percentage in Figure 2. As the length of the episode increased, the percentage of cost attributable to the surgeon remained stable while the share of the spending attributable to other physician spending, readmissions, and postacute care increased.
One of the challenges in this project was that although the selected colon resection for cancer MS-DRGs captured the majority of colon resections performed due to colon cancer, the sample still included some colon resections for other causes and diseases. Therefore, GSCRC performed a second round of analysis to determine the physician services for colon resection for cancer, specifically. Based on this second round of analysis specific to colon resection for colon cancer, GSCRC found that:

In the 30 days preadmission and 30 days postdischarge episode, 28 percent of the overall Part B payment for colon resection for colon cancer was for general surgeon or colorectal surgeon services. Figure 4 shows the breakdown of the percentages of payments.

In the 30 days pre-admission and 30 days post-discharge episode, the highest percentage of total billing (by major BETOS group) was hospital visits. Figure 5 shows the breakdown of payments.
FIGURE 6: PERCENT OF PART B PAYMENT FOR TOP 15 CPT/HCPCS CODES FOR COLON RESECTION FOR CANCER
(30 Days Preadmission/30 Days Postdischarge)

In the 30 days preadmission and 30 days postdischarge episode, payment for the top code was “subsequent hospital care,” 99232. Figure 6 shows the breakdown of payment for the top 15 CPT/HCPCS codes in this episode.

The top 15 codes in Figure 6 represent approximately 51% of Part B payment for this colon resection for cancer episode.

FIGURE 7: PERCENTAGE OF PAYMENT FOR TOP 15 CPT/HCPCS CODES FOR GENERAL/COLORECTAL SURGEONS VERSUS OTHER PHYSICIANS
(30 Days Preadmission/30 Days Postdischarge)

Figure 7 shows the breakdown from Figure 6 of payments for the top 15 CPT/HCPCS codes in the 30 days preadmission and 30 days postdischarge episode. Figure 7 compares payments to general and colorectal surgeons with payments to all other physicians in the colon resection for cancer episode for each of the top 15 CPT/HCPCS codes.

Dark green is percentage of payment by code to colorectal surgeons and general surgeons. Light green is percentage of payment by code to others.
Mastectomy for Cancer

Because the CPT “index codes” included only a small percentage of partial mastectomies, the GSCRC was unable to conduct the analysis for partial mastectomy. Therefore, the GSCRC focused instead on only total mastectomies. Following are some of the broad findings related to total mastectomy for breast cancer.

1. As with colon resection for cancer, the core procedure costs and surgeons’ fees for mastectomy for breast cancer were relatively stable regardless of the length of time of the episode period.

2. Also similar to colon resection for cancer, postdischarge care and readmissions accounted for large variations in cost when the episode was expanded. Based on the available data, the GSCRC found that increasing the episode of care postdischarge from 30 days to 90 days resulted in an increase by 88 percent of costs captured by the bundle. This overall increase is broken down by: surgeon cost (up 22 percent), readmission cost (up 225 percent), and other physician costs (up 200 percent), shown in Figure 8. Although the readmission percentage increase is large, the percent of readmissions compared with total cost in each episode period analyzed was relatively small: 30-day post-discharge readmissions were 6 percent, and 90-day postdischarge readmissions were 15 percent.

3. The most costly BETOS category for the mastectomy cases was “major procedure – breast.”

Unlike the colon resection for cancer analysis, the selected mastectomy for cancer MS-DRGs captured the majority (more than 95 percent) of total inpatient mastectomies performed due to breast cancer.
Figure 9 shows overall Part A and Part B spending for a mastectomy episode of three days preadmission/30 days postdischarge. Again, the costs attributable to the surgeon are relatively small, in this case only 10 percent of the overall A and B spending.

Figure 10 shows overall Part A and Part B spending for a mastectomy episode of 30 days preadmission/90 days postdischarge. As the episode length increased from the three day preadmission/30 day postdischarge window, the share of spending attributable to the surgeon decreased from 10 percent to 6 percent.

Note: Because the GSCRC used a crosswalk with DRGs, these data only include mastectomy cases that required an inpatient admission. The GSCRC believes this is an appropriate analysis because the bundling projects currently in existence and in development that the GSCRC reviewed (see the Primer) focus on inpatient bundling. In addition, a “condition-specific bundle” would begin to capture cases that do not necessarily require or result in an inpatient stay or surgical procedure, but capturing this type of data would be more difficult.
This analysis also found that:

In the three days preadmission and 30 days postdischarge episode, 36 percent of the overall Part B payment for mastectomy for breast cancer was for general surgeon or surgical oncologist services. Figure 11 shows the breakdown of the percentages of payments.

In the three days preadmission and 30 days postdischarge episode, the highest percentage of total billing, by major Berenson-Eggers Type of Service (BETOS) group, was major procedure breast. Figure 12 shows the breakdown of payments.
In the three days preadmission and 30 days postdischarge episode, payment for the top code was “mastectomy, modified radical,” 19307. Figure 13 shows the breakdown of payment for the top 15 CPT/HCPCS codes.

The top 15 codes in Figure 13 represent approximately 63% of Part B payment for this total mastectomy episode.

Note: The analysis is based on 2009 data and does not include CPT codes established after 2009.

Figure 14 shows the breakdown from Figure 13 of payments for the top 15 CPT/HCPCS codes in the three days preadmission and 30 days postdischarge episode. Figure 14 compares payments to general surgeons and surgical oncologists with payments to all other physicians in the total mastectomy episode for each of the top 15 CPT/HCPCS codes.
The GSCRC Surgical Bundled Care Project to date has focused on the framework for constructing clinically coherent bundles. This data-driven methodology shows great promise to evaluate the extent of variation in costs within specific episodes of care for individual procedures linked to diagnoses. However, it is critical that the episodes selected have data metrics, clinical pathways, appropriateness criteria, and performance measures that allow for appropriate quality measurement.

Even in the simplest of scenarios, acquiring and analyzing the resources necessary to create a clinically coherent bundle is inherently difficult work. The investments and resources required will be challenging for many organizations, so policymakers must ensure that organizations with the expertise and interest have grant support and access to data and information needed to perform the requisite analyses. Bundled payment programs also present challenges in the development, attribution, accountability, and governance of the bundles.

The ACS remains committed to advocate that surgical bundles integrally include surgeons in those clinical decisions of development, clinical oversight, quality measurement, governance, and sensible payment models so that as these decisions are implemented, they will contribute to the creation of value and successful care for the surgical patient.
Earlier this year, Congress attempted to address the Medicare physician payment problems associated with the use of the sustainable growth rate (SGR) formula. The good news first: Congress averted another steep cut in payment by passing a 10-month short-term patch. The bad news: there is no stability in the Medicare physician payment system and each short-term patch makes it increasingly difficult to enact permanent repeal. The short-term patches increase the size of future cuts as well as the future cost of permanently repealing the SGR.

These confounding consequences prompted the American College of Surgeons (ACS) to lead organized medicine’s most recent physician charge to eliminate the SGR formula once and for all by suggesting that Congress use overseas contingency operations (OCO) funds to cover the cost of permanent repeal.

Enacted as part of the Balanced Budget Act of 1997, the SGR formula was intended to be used as a prospective measure for controlling the growth of Medicare payments for physician services.1 The idea behind the SGR formula was that it would set health care spending targets, which, if exceeded, would result in a proportionate cut in the following year’s physician payment rate. However, this macroeconomic approach was suited to account for the volume and complexity of physician services as well as the needs of each individual patient. While Congress has interceded to prevent the cuts, its cumulative...
budgetary method has resulted in scheduled payment cuts of 27 percent on January 1, 2013. As a result, many Fellows are asking some tough questions, such as: Why hasn’t Congress adequately addressed the issue? Is the use of OCO funds a viable solution? What is the ACS doing on my behalf to advocate for permanent repeal? This article responds to these and other questions surgeons may have about the status of the SGR.

Dating back to 2002, Congress has passed 14 short-term “doc patches.” Why haven’t our elected officials passed legislation that would permanently repeal the SGR?

The answer is simple: Congress has yet to find the political will to solve the problem. Congress unanimously acknowledges that the problem must be fixed and that its failure to address the issue years ago has added to the complexity of implementing a permanent solution. The nearly $300 billion price tag is prohibitive in today’s economic reality and in a Congress that requires that the cost of permanent repeal be offset by cuts elsewhere in the federal health care budget.

The College has made its position clear that Congress must enact permanent repeal and remove one of the biggest threats to Medicare beneficiaries’ access to care. The ACS has made known its willingness to address the Medicare physician payment structure and to arrive at a solution that will enable physicians to continue to improve the care of the surgical patient in more efficient settings, while appropriately paying them for their services. As long as physicians and their patients are faced with the current unstable system and fundamentally flawed SGR formula, it is difficult to discuss improvements to the physician payment system.

What are the long-term effects of short-term patches?

It is no secret that short-term patches have lasting effects on health care with respect to dollars and cents. Members of Congress have stated that the SGR formula is broken and must be repealed. With each short-term patch that Congress enacts, the schedule of cuts gets steeper, and the cost of fixing the problem increases. In 2005, the SGR formula could have been repealed permanently for less than $50 billion. Today, the cost exceeds a staggering $300 billion.

Those organizations and individuals fighting for repeal have estimated that in the next five years, the combined cost of the short-term patches and accumulated SGR debt will reach $600 billion, more than half a trillion dollars of debt. Keep in mind that the recent 10-month SGR patch through the end of 2012 costs $18 billion over 10 years and does not pay down the principal balance, which is currently estimated at $271 billion, according to the Congressional Budget Office (CBO).

What is the ACS doing on my behalf to advocate for permanent repeal of the SGR?

The College’s advocacy staff continues to carry out its mission of working every day to achieve permanent repeal of the SGR. ACS advocacy staff members have met with hundreds of congressional offices, urging them to commit to the use of unused OCO funds to offset the cost of SGR repeal. In an historic effort, the elected leadership from the four largest physician specialty organizations joined together in January to deliver a strong, unified message calling on key members of Congress to permanently repeal the SGR formula using war drawdown savings. Participating with the College were the American College of Physicians, the American
Academy of Family Physicians, and the American Osteopathic Association. ACS leadership representatives included Patricia Numann, MD, FACS, President; A. Brent Eastman, MD, FACS, President-Elect; and David Hoyt, MD, FACS, Executive Director. Together, the organizations represent more than half of the practicing physicians in the U.S. In addition, ACS members stormed the Hill during the ACS first annual Advocacy Summit in March. After intensive advocacy training, the surgeons met with congressional representatives and staff to discuss the need to permanently repeal the SGR.

What are OCO funds? How could OCO funds be used to offset the SGR?

OCO funds are known as discretionary funds for the wars in Afghanistan and Iraq and similar activities. Make no mistake, OCO funds are not used to support the troops; they are a completely separate budget item. Funding levels for the OCO are established each year in the U.S. Department of Defense appropriations bill.

Due to CBO scoring requirements, it is widely acknowledged that the current baseline forecasts much more spending for Iraq and Afghanistan under the OCO than is likely to occur, given the ongoing drawdown. At the same time, CBO scoring conventions require it to unrealistically assume that Medicare physician payments will be cut more than $300 billion over the next 10 years. Members of Congress routinely state that cuts of this magnitude would destroy Medicare and should be averted. Using the OCO baseline as an offset for the SGR baseline essentially amounts to “cleaning up the books,” by eliminating bad fiscal policies and allowing for a more accurate accounting of future government expenditures without increasing the deficit.

Why didn’t Congress use the OCO funds?

Despite the medical community’s hard work and the valiant efforts of some legislators—Republicans and Democrats alike—opposition from key leaders and representatives proved too big a hurdle to overcome. Accordingly, Congress did what it has always done—put off repeal and permanent reform until another day.

Who is most affected by the cuts?

Surgeons and other physicians certainly are affected, and, to a greater extent, so are their patients. The way the SGR’s target-based formula is set up provides individual physicians with no incentives for controlling volume growth, yet punishes even those physicians who do not increase volume, unnecessarily. This top-down economic model, which is tied to the nation’s gross domestic product, is fundamentally flawed and negatively affects physicians in specialties that have fewer opportunities to increase volume.

How can Fellows assist in efforts to repeal the SGR?

Research has consistently demonstrated that members of Congress are driven to make decisions on issues by visits from their constituents, and communications (phone calls and/or e-mails) from voters in their district or state. Throughout the year, the College will send e-mail alerts to the membership (who may enlist their patients when appropriate) requesting their help with its advocacy efforts, including the repeal of the SGR. Unfortunately, the two most recent grassroots alerts generated a combined total of less than 1,000 “contacts” with Capitol Hill, an average of less than two contacts per member of Congress. The College needs your help to push Congress to find the political will to end this decade-old problem, and will do as much as possible to make members’ involvement as easy as possible in the
least time-consuming manner. You can make a difference—not only for your practice, but for your patients’ ability to access high-quality surgical care.

References


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Surgical leadership

in the era of quality-based payment

by John V. White, MD, FACS; David Young, MD; Cindy Mahal-van Brenk, RN; and Jeffry A. Peters
Health care reform is changing the way both public and private insurers pay for surgical services. In the process, it also is redefining the role of the surgeon in the hospital operating room (OR).

Historically, payors have compensated surgical providers based on surgery volume. Under the traditional system, payment is based on the total cost of supplies, labor, and other resources required to perform a surgical procedure. Today, U.S. payors are increasingly tying payment to quality outcomes. The goal is to pay for clinical value as evidenced by quality processes, patient outcomes, and cost control. Quality-based payment for surgical specialists is also under consideration.

How does this shift affect surgeons? First, quality-based payment is changing the way hospitals evaluate their surgical staff. Previously, surgeons retained their hospital privileges if they avoided significant clinical or behavioral events. Now, many surgery departments are evaluating surgeons based on quality of care before, during, and after surgery. More importantly, quality-based payment is changing the value of surgical expertise within the financial ecosystem of the hospital. Surgical quality is no longer just a dimension of clinical care; it is a core driver of economic performance. In light of this movement, hospitals are increasingly looking to surgeons to provide organizational leadership in quality improvement.

This choice is a logical one. Surgeons are natural leaders and seasoned collaborators, and as a group they possess an extraordinary desire to improve. The challenge for surgeons will be applying their leadership skills to a wider field. New payment models are calling for more than isolated improvements; coordinated efforts to achieve comprehensive quality gains are required.

What skills and knowledge do surgeons need to be effective quality leaders? The key is to understand (1) the external forces that are shaping the quality landscape, and (2) how to drive the internal organizational processes that affect surgical quality and cost outcomes. The first step is to analyze the incentives, penalties, and opportunities that underlie new payment models.

Six quality-based payment strategies
New payment models developed in the U.S. in recent years illustrate the challenges of identifying and rewarding quality, particularly in the area of surgical care. Payors are experimenting with a variety of approaches to quality-based payment. Prominent strategies include:

- Tying payment to evidence-based care processes
- Penalizing errors and “never events”
- Penalizing readmissions
- Linking payment to patient satisfaction
- Providing opportunities for shared savings
- Tying payment to clinical outcomes

Illustrates how Advocate Lutheran General Hospital in suburban Chicago, IL, has used ACS NSQIP® to launch several new initiatives designed to enhance OR processes and outcomes. This article discusses the results of these efforts.
New payment models developed in the U.S. in recent years illustrate the challenges of identifying and rewarding quality, particularly in the area of surgical care.

Tying payment to evidence-based care processes. One basic approach to quality-based payment is to link financial incentives to specific interventions and processes associated with quality care. The Centers for Medicare & Medicaid Services (CMS) is currently developing this model through the hospital value-based purchasing (VBP) program. Participating hospitals receive Medicare payment bonuses or reductions based on their overall performance on several clinical care measures. Roughly half are process measures drawn from CMS’ Surgical Care Improvement Project (SCIP), including antibiotic and venous thromboembolism prophylaxis. High-quality hospitals (or hospitals that demonstrate significant quality improvement) receive a bonus of up to 1 percent of base operating diagnosis related group (DRG) payments. Low-quality hospitals are penalized up to 1 percent of DRGs. (The program is budget-neutral, with the best taking dollars away from the worst.) The at-risk amount will increase incrementally to 2 percent in fiscal year 2017.

Penalizing errors and “never events.” Another approach to quality-based payment is to penalize medical errors and preventable complications. Starting in fiscal year 2015, Medicare will begin reducing payments to hospitals with high rates of certain hospital-acquired conditions (HACs), including surgery-related events, such as retained foreign objects, certain surgical site infections (SSI), and deep vein thrombosis (DVT)/pulmonary embolism (PE) after hip and knee replacements. Hospitals that land in the lowest quartile will be subject to a 1 percent reduction in payment. Private payors have also adopted error penalties. Cigna, for instance, reserves the option of reducing payment for care related to mediastinitis following coronary artery bypass grafting and SSIs following orthopedic or bariatric surgery.

Penalizing readmissions. Patients who experience an inpatient safety event are 47 percent more likely than other patients to be readmitted within three months. Under the Medicare hospital readmissions reduction program, DRG payments are reduced for hospitals with high readmission rates. The program initially targets care related to myocardial infarction, heart failure, and pneumonia, but it is expected to be extended to certain cardiovascular surgeries starting in 2015. DRG payment penalties are 1 percent in fiscal year 2013, increasing to 2 percent in 2014 and 3 percent in 2015.

Tying payment to patient satisfaction. In addition to clinical process measures, the Medicare VBP program tracks patient satisfaction using the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey. The survey—which is administered to a random sample of discharges, including surgery patients—focuses on patients’ perceptions of provider communication and responsiveness. The use of patient satisfaction in quality-based payment is controversial. Presumably, however, maintaining a patient-centered environment built on strong communication will help ensure overall quality and continuity of care.

Sharing quality-generated savings. Several advanced payment models encourage quality by allowing hospitals and physicians to share in the savings generated by quality improvement. For example, Medicare’s bundled payments for care improvement initiative assigns a target price for defined episodes of care. Provider organizations that achieve lower costs (through reduced complications, lower readmissions, better resource use, and so on) are allowed to retain the full bundled payment. The shared savings model is also an element of most accountable care organizations (ACOs), including the Medicare Shared Savings Program and many private ACOs. Given the high cost of surgical complications, success under any of these arrangements will hinge upon surgical quality.

Tying payment to clinical outcomes. Payors are also developing methods for tying payment directly to patient outcomes. Directly linking outcome to payment is a challenging goal, but payors have expressed a strong interest in creating payment models that are based on quality results, not just quality processes. In 2015, for instance, the VBP program will add a composite patient safety measure that takes into account postoperative PE/DVT, sepsis, and wound dehiscence. Looking forward, the value-based update model that the American
QUALITY-BASED PAYMENT MODELS

Recently developed payment models represent different strategies for identifying and measuring quality care. Model design ranges from a narrow focus on specific care interventions and adverse events to strategies for evaluating the full impact of care on patients and costs.

College of Surgeons (ACS) is in the process of developing would use clinical data registries to link Medicare payment to true surgical outcomes.

The payment models discussed in this article represent a spectrum of design strategies, ranging from a narrow focus on specific care interventions and adverse events to strategies for evaluating the full impact of care on patients and costs (see figure, this page). It is important to note the following two facts about all these models:

- Many programs and proposals incorporate design elements from several different models. For instance, the Medicare Shared Savings Program and many private ACOs have incorporated patient satisfaction metrics into performance measures.

- While the surgical profession is developing models that will allow surgeons to participate directly in quality-based payment, hospitals are mediating the initial impact. As illustrated earlier, new incentives and penalties primarily target hospital payments. Hospitals, in turn, are developing ways to identify and reward surgeons who help them achieve payment-favored quality goals.

The bottom line is that an effective response to quality-based payment must encompass not only efforts to improve clinical care in the surgical suite, but also initiatives to optimize the entire hospital surgery department. To be able to lead this transformation, surgeons need to master the entire range of organizational processes that affect surgical outcomes. Our experience in a large hospital OR shows that the key is to identify and control all of the processes that contribute to safe, quality surgery.

Case study: Leading process improvement in the OR

Advocate Lutheran General Hospital is a tertiary care hospital in suburban Chicago, IL, that has a longstanding commitment to quality care. In 2007, Lutheran General joined the ACS National Surgical Quality Improvement Program (ACS NSQIP®). As part of the facility’s commitment to the ACS NSQIP philosophy, surgery department leaders launched several new initiatives designed to enhance OR processes and outcomes.

The initiatives were based on the concept that a surgical procedure is the endpoint of multiple processes. Each process contributes to a safer outcome. For instance, pre-anesthesia testing yields important information about patient comorbidities. Workflows in central sterile produce surgical supplies that, if properly sterilized, reduce the likelihood of a costly postoperative infection. Time, of course, is a critical dimension. The window of opportunity for many of these processes is relatively short, and it all but vanishes during the operation itself. As with any system of processes, the key to a good outcome—a safe, quality surgical procedure—is to control all the variables. The goal at Lutheran General was to enhance surgical outcomes by controlling variables in the following four areas.

Information. Information is a critical component of surgical safety and quality. In surgical services, information enters the system through the scheduling process. Hospitals need to ensure they have scheduled the cor-
The bottom line is that an effective response to quality-based payment must encompass not only efforts to improve clinical care in the surgical suite, but also initiatives to optimize the entire hospital surgery department. To be able to lead this transformation, surgeons need to master the entire range of organizational processes that affect surgical outcomes.

rect patient, for the correct procedure, on the correct surgical site. Unfortunately, scheduling is poorly controlled in most ORs. Typically, scheduling staff will accept case requests via any route—phone call, fax, e-mail, or in person. Some schedule requests include full, accurate patient information, whereas others lack important detail. Surgery department leaders at Lutheran General recognized the opportunity to improve information capture by creating a single-path scheduling system. Under the new system, surgeons and their office staff are required to use a standardized fax form for all schedule requests. The form includes mandatory fields for capturing procedure details, patient comorbidities and other risk factors, anesthesia requirements, test orders, special equipment needs, and other valuable details.

The department also implemented a software system to manage documentation. The system receives all incoming faxes, digitizes the content, and indexes patient and procedure information. As additional documentation comes in—for example, imaging studies, lab results, and consults—the system assembles a comprehensive file for every case. Clinical staff members review each item upon arrival and triage content appropriately. The new scheduling/documentation process ensures all case information is available as needed throughout the preoperative process and on the day of surgery.

Patient risk factors. Although the importance of controlling risk factors is widely understood, different organizations use a wide variety of approaches to identify patient risk. Lutheran General addressed this problem by creating a standardized, evidence-based process for pre-surgical testing. The heart of the system is a pre-anesthesia testing (PAT) center that coordinates all patients preoperatively. Shortly after a case is scheduled, a member of the registration team contacts the patient by phone. Depending on the results of the telephone screening, the patient is triaged to either a normal prep timeline or scheduled for additional interventions. PAT staff use standardized testing protocols developed through collaboration between the anesthesia and surgery departments. The protocols prescribe test pathways and lab and imaging guidelines for normal and high-risk patients. An anesthesiologist performs a chart review for all high-risk patients and reviews all abnormal test results. PAT nurses actively monitor and manage cases starting three days before surgery. Standard protocols also identify medications to hold pre- and post-procedure. The new PAT process helps ensure that patient risk factors are effectively identified and completely managed before surgery.

Final assembly. Most manufacturers incorporate a final quality assurance inspection into the production process. In the case of surgery, performing a quality check after a procedure is obviously of limited value. Quality assurance needs to be incorporated into the surgical process before the procedure itself. Lutheran General addressed this need by developing a process known as the “daily huddle”—a 35-minute meeting that takes place every day at 2:00 pm. The meeting is attended by representatives from anesthesia, PAT, nursing, materials management, central sterile processing, and other perioperative services. After reviewing current-day issues, participants examine cases scheduled for the next day to verify that required tests are complete, required equipment will be available, and any specific risks have been addressed. Participants also evaluate the schedule as a whole to ensure effective flow of staff and resources. When a problem comes to light, staff members resolve the issue promptly or reschedule the case.

Controlling communication. Several national safety organizations have identified poor communication as a leading factor in medical error. Obviously, communication problems block the flow of information, including important information gathered preoperatively as well as critical information about what is occurring intraoperatively. In 2010, Lutheran General joined several other Advocate Health hospitals in a broad-spectrum effort known as the Safer Surgery Initiative. The initiative included several components aimed at improving OR communication. One was crew resource management (CRM), an aviation safety methodology that has made inroads into surgery in recent years. Surgeons,
anesthesiologists, and nurses received training on sharing information, raising safety concerns, respecting colleagues, and other skills of effective communication. The hospitals also adopted a modified version of the World Health Organization’s surgical safety checklist to support team communication and ensure consistent adherence to quality practices.

The initiative included changes aimed at improving communication postoperatively. Lutheran General implemented an anonymous error reporting system and took steps to encourage a “just culture” that facilitates non-punitive efforts to solve quality problems. Overall, the Safer Surgery Initiative helped improve surgical quality by ensuring that key information is communicated before, during, and after surgical procedures.

When Lutheran General launched these initiatives, the facility already had very good outcomes on a broad range of quality measures. Nevertheless, the surgery department’s efforts to control the processes that “feed” surgery resulted in significant improvement in a number of key metrics. The following outcomes data are based on ACS NSQIP reports:

- **Blood clots:** Lutheran General’s baseline for DVTs was 3.3 percent prior to implementing ACS NSQIP. By the end of 2007 (the hospital’s first year in the program), the rate had been reduced to 0.8 percent. In the fourth quarter of 2011, the DVT rate was down to 0.3 percent.

- **Urinary tract infection:** Starting from a baseline of 6.7 percent, the urinary tract infection (UTI) rate was reduced to zero by the end of 2007. The average quarterly UTI rate in 2011 was less than 0.4 percent.

- **Kidney failure:** The renal failure/insufficiency rate for surgery patients was 1.4 percent in the first quarter of 2007. In 2011, the average quarterly rate for this complication was less than 0.2 percent.

- **Respiratory outcomes:** In the first quarter of 2007, 2.6 percent of patients were on a ventilator longer than 48 hours, and 3.9 percent developed pneumonia. In 2011, the average quarterly V>48 rate was less than 0.3 percent. The postoperative pneumonia rate was 0.0 percent throughout the entirety of 2011.

- **SCIP measures:** Performance on SCIP measures has improved significantly, increasing from a compliance rate of approximately 85 percent to overall compliance exceeding 99 percent. Currently, Lutheran General exceeds national performance on 9 out of 11 SCIP measures.7

These gains have boosted overall surgery department quality from very good to exceptional. In 2010, the ACS cited Lutheran General for achieving the lowest rate of postoperative complications of all participants in ACS NSQIP.

**Cutting costs, improving efficiency**

Process initiatives have also helped Lutheran General improve performance on quality measures that affect costs. Lower complication rates have contributed to a reduction in length of stay (LOS) for surgery patients. For instance, Lutheran General’s LOS for complex aortic surgeries is approximately five days, compared with a U.S. average of approximately nine days. Rehospitalizations are also down. The U.S. 30-day readmission rate for surgery patients was 12.7 percent in 2009.8 Based on internal data, the Lutheran General rate was 9.3 percent in 2012 and trending downward, despite serving a high-acuity surgical population.

Comprehensive process improvement has also increased surgery department efficiency. Thanks to better initial information capture, stronger document management processes, standardized preoperative testing, and the daily huddle “quality check” process, fewer patients have unresolved issues on the day of a procedure. As a result, last-minute case cancellations have declined. Based on internal data, the same-day cancellation rate at Lutheran General decreased from 4.2 percent to 0.7 percent between 2009 and 2011. This, in turn, has helped the surgery department control costs by minimizing wasted supplies, staff time, and OR capacity.
Surgical department leaders can achieve significant improvements by coupling procedure-focused changes with broad, systems-focused interventions.

Valuable model

Lutheran General is not the only hospital to implement comprehensive perioperative process improvement. Hospitals across the country have used this approach to improve surgical quality and control costs. Of what value is the model to surgeons?

One benefit of the process-based approach is that it complements other improvement methodologies focused on best practices and continuous measurement and reporting. Surgical department leaders can achieve significant improvements by coupling procedure-focused changes with broad, systems-focused interventions. Comprehensive perioperative process improvement may even be the key to realizing the value of specific clinical processes, which by themselves do not seem to produce automatic outcome improvements.

Another benefit of this approach is that it enables a comprehensive response to payment reform. Comprehensive organizational improvement has positioned Lutheran General to achieve excellent process metrics under the VBP program, minimize non-reimbursable never events, reduce re-hospitalizations penalized under the Medicare hospital readmissions reduction program, and control the full range of costs (complications, readmissions, supplies, labor, and so on) that are critical to success or failure under bundled payments and ACOs. The process-based approach also will help Lutheran General perform well under any future payment system focused on clinical outcomes, especially one built on ACS NSQIP domains. Indeed, perioperative process improvement at Lutheran General and other Advocate Health hospitals has already led to gains under private payor contracts. Surgeons who operate at Lutheran General and other system hospitals have access to gainsharing incentives negotiated through the system’s physician health organization, Advocate Physician Partners.

Ultimately, the value of this approach for surgeons is that it provides them with an opportunity to lead the response to payment reform. Surgeons—collaborating with anesthesiologists, hospitalists, and nurses—are in an excellent position to define the future of surgery by taking responsibility for the entire chain of perioperative processes. Surgeons who accept the challenge will not only provide better surgical care but will help build efficient and effective surgical service organizations that emerge from health care reform on a stronger footing than ever.

REFERENCES
Leading the charge in defense of the RUC

by Bob Jasak, Esq.; and Kristen Hedstrom, MPH

On April 6, the American College of Surgeons (ACS) and 47 other physician organizations sent a letter to all members of the House of Representatives to clarify the composition and role of the American Medical Association (AMA) Relative Value Scale Update Committee (RUC). The letter was in response to some representatives who incorrectly described and evaluated the RUC during a March 15 hearing of the House Ways and Means Subcommittee on Health.

The College followed with a letter of its own opposition to the Medicare Physician Payment Transparency and Assessment Act of 2011, H.R. 1256, introduced by Rep. Jim McDermott (D-WA). This legislation would require the Centers for Medicare & Medicaid Services (CMS) to employ the services of outside contractors to annually analyze potentially misvalued services and codes under the Medicare physician fee schedule.

The AMA RUC is a multispecialty expert panel that is designed to make informed annual decisions for CMS on the values of new and revised Current Procedural Terminology (CPT)* codes. The ACS holds the RUC seat assigned to general surgery. The remainder of the RUC consists of seats assigned to the following areas: anesthesiology, cardiology, cardiothoracic surgery, dermatology, emergency medicine, family medicine, internal medicine, neurology, neurosurgery, obstetrics/gynecology, ophthalmology, orthopaedic surgery, otolaryngology, pathology, pediatrics, plastic surgery, psychiatry, radiology, and urology. In addition, colon and rectal surgery, nephrology, and pulmonary medicine currently occupy the RUC’s rotating seats.

The College strongly believes the concerns that the subcommittee members have raised are unfounded, and that H.R. 1256 is unnecessary. CMS has consistently relied on the RUC’s work and recommendations in assigning values for physician services for the purposes of the fee schedule, and the CMS also participates in all RUC meetings. ACS participation in the RUC has contributed to the creation of a deliberative body that has helped to assess the relative complexity, intensity, and risk of physician services across specialties. The participation of the ACS has been rooted in the belief that the best-situated individuals to make those assessments are the physicians who provide these services across the country every day.

In addition to annual updates reflecting changes in CPT, section 1848(C)2(B) of the Omnibus Budget Reconciliation Act of 1990 requires CMS to comprehensively review all relative values at least every five years and to make any necessary adjustments. The success of the RUC’s role in the annual update process led CMS to seek assistance from the RUC for each of the three five-year reviews. After each review is completed, the Secretary of Health and Human Services and CMS review the RUC’s recommendations and then accept, modify, or reject any of the suggestions.

The College also opposes H.R. 1256 because the bill calls upon CMS to use independent contractors to have input on CPT codes, and, in fact, the agency has an unsuccessful history in this arena. In the late 1990s, CMS used a contractor to develop practice expense inputs for all physician services. When the process failed, the RUC stepped in to develop a new process with uniform standards and re-reviewed every service and cost input, resulting in the redistribution of practice expense payments to primary care. Another CMS contractor hired to obtain the overall practice costs of each specialty could not fulfill its contract and, in 2007, CMS relied on the AMA and national specialty societies to collect the cost information. In addition, the RUC assumed the responsibility of identifying potentially misvalued codes, when CMS, using contractors, failed in its attempt. To date, the RUC has identified more than 900 services and redistributed more than $1.5 billion.

No signs of bias

One common criticism of the RUC has been a purported bias toward nonprimary care specialties. However, the RUC does not...
review primary care or any specific specialty in terms of relative value. Rather, the committee reviews the relative value of individual services that physicians perform—regardless of specialty. Even as Medicare payments for many physician services have steadily declined in the past two decades, the RUC has taken significant steps to improve reimbursement for services that primary care professionals perform, including the following:

- The RUC review of services in 1995, which included recommended increases for evaluation and management services, resulted in a shift of $2.7 billion, and net increases for family practice and internal medicine of 2.0 percent to 2.5 percent. Surgical specialties saw net decreases ranging from 1.0 percent to 5.5 percent.
- The third five-year review of work in 2005 resulted in the shifting of more than $4 billion to evaluation and management codes—which are largely provided by primary care practitioners—from other physician services in the 2007 Medicare physician fee schedule.
- The third five-year review also resulted in a 37 percent increase in the work values associated with an intermediate office visit (CPT 99213), the most frequently billed Medicare physician service for family practice and internal medicine physicians.
- Between 2006 and 2011, whereas Medicare payments for many physician services were reduced from 2006 levels for non-primary care physicians, Medicare payments to primary care have increased by 22.5 percent, according to the Medicare Payment Advisory Commission’s (MedPAC’s) most recent report.

Of the 22.5 percent increase to primary care, only 2.9 percent of that increase resulted from annual Medicare payment updates, while 19.6 percentage points were a result of the recommendations made by the RUC. This includes increases in preventive services such as the increase in immunization administration.

In addition, the RUC has provided a reasonable venue for the primary care community to voice the needs and interests of primary care professionals and their patients. Of note, each time a primary care organization has asked the RUC to assist and evaluate their requests, the RUC has, with few exceptions, provided the changes. For example:

- Although CMS has not yet implemented it, the RUC has ascribed a value to medical home services, in addition to the 22.5 percent increase to primary care.
- The RUC provided a value for observational care, which is principally provided by primary care.
- The RUC has also provided valued for telephone and team management services.

Some payment experts, including MedPAC, have suggested creating an additional RUC-like panel, which would include economists and laypersons, in addition to physicians, to make recommendations regarding particular physician services that are perceived to be overvalued. Another panel would not only be duplicative, but would add yet another bureaucratic layer to an already complicated process. In addition, the Secretary of Health and Human Services and CMS already enjoy considerable authority regarding the recommendations issued by the RUC and currently have the authority and ability to obtain input from economists and other individuals.

While no payment process is flawless, the College strongly believes the RUC exists to provide relative valuation of medical services. No other entity has the expertise to decide if a service provided is relatively more complex, relatively more intense, or relatively more risky than the collective deliberative panel of the RUC.

For more information on the activities of the Division of Advocacy and Health Policy, and to view the letters mentioned in this article, go to http://www.facs.org/abh. If you have any further questions, contact Kristen Hedstrom at khedstrom@facs.org or Bob Jasak at bjasak@facs.org.

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New Systems of Care
Surgeons, other providers take the lead on integrating health care services
The term “value” has achieved buzzword status in health care. The word appears widely on the pages of medical, economic, and business journals, in reports by the most respected figures in health care policymaking, and, quite prominently, in the Affordable Care Act (ACA). Value is a concept that budget-conscious consumers often apply when making large purchases. These consumers tend to equate good value with products of the highest quality for the lowest price. When applied to health care, value becomes a much more complex term. Both the consumer and the product can vary significantly. The “consumer” may be the patient, the physician, the insurer, the employer, the government, or anyone else who interacts with the health care system. The “product,” or patient outcome, can be defined using simple short-term measures, like survival, to long-term composite measures of quality, safety, and patient satisfaction.

In reviewing the myriad ways to define and measure health care value, some common themes recur. One equates value with the quality of care relative to the cost of obtaining it. The basic idea that cost and quality determine value remains consistent regardless of whether the metrics are formulated from disease-, network-, or population-specific perspectives. The second theme centers on the belief that the U.S. health care system must reorganize from its current fragmented state into integrated provider networks that coordinate care and share joint responsibility for patients. This position rests on the premise that many inputs into the health care system determine quality and cost, requiring multiple metrics across multiple providers for determination of value. Integrated measurement forms the basis of value-based payment reforms that have been touted as a means to improve quality and decrease costs in U.S. health care.

Limited integration of the U.S. health care system will present problems for emerging value-based reform strategies, such as accountable care organizations (ACOs), value-based purchasing, and bundled payments. The necessary framework has yet to be developed in most institutions and health care networks, with a few notable exceptions that have demonstrated success. Multiple components of the ACA will pilot strategies to provide financial incentives for networks of physicians, hospitals, and ancillary providers to better coordinate the delivery of health care services. It seems like placing the cart before the horse, but some experts believe that changing the payment methodology represents the only way to stimulate organizational change in the delivery system.
Providers should lead

The authors, however, have taken a different view. What if, instead of the insurers taking the lead, providers took charge of improving value? What if hospitals and physicians that commonly work together as affiliates were to begin measuring value across organizational lines, coordinating care to benefit patients, and building integrated systems to measure value?

Analyzing care across physician and hospital services allows standardization of care protocols, system-wide outcomes and cost measurement, collaborative improvement efforts that prevent cost-shifting, coordination of care, and less duplication of efforts. Payment reform may achieve some of these benefits, but creating incentives based on reimbursement rates rather than the desire to improve systems of care inevitably leads to shortcuts and incomplete solutions. Working together within a system before financial pressure mandates change puts physicians and hospitals in a better position to adapt to new realities. We have piloted this strategy at our institution, and in this article, we share our thoughts regarding system-wide value measurement in a traditionally fragmented system.

Integrating the system

Children’s Hospital Boston and its affiliated physicians are organized within the traditional structure whereby the hospital contracts with an independent physician organization. Each entity operates independently from a financial, organizational, and leadership standpoint. As a result, the concept of measuring value across multiple providers and units in the hospital has been met with skepticism. Although patients often visit coordinated clinics for multidisciplinary care, outcomes are not measured consistently across all providers. Children’s Hospital Boston does not routinely measure the continuum of diagnosis-specific costs within a single specialty, let alone across multiple outpatient specialties and inpatient operations. These challenges defined the first step of the task: integrating a fragmented system.

The ability to build support among stakeholders rests with strong leaders who possess a clear vision of how to measure and improve value. Armed with preliminary data from existing systems, we convinced key hospital administrators and physician groups that integrating cost and outcome metrics across the continuum of care would benefit all stakeholders and our patients. Persuading hospital administrators and physician groups to link outcome and cost data across an entire organization was crucial to our success. After gathering the necessary human resources, the core leadership team outlined a step-by-step approach to piloting value measurement (see Figure 1, this page), to be followed by scaling up across the institution. This process was structured as follows:

☑ Step 1: Mapping the care process

Before system-level value can be measured for a diagnosis, the patient care pathway must be mapped across inpatient and outpatient encounters to define critical processes and to identify time points to measure outcomes and costs. To

Figure 1. High-level, stepwise approach to value measurement

- Step 1: Map the care process across providers
- Step 2: Define outcomes measures at standard time points
- Step 3: Determine costs of providing care across the process
map processes at our institution, we chose cleft lip and palate care as a multidisciplinary pilot diagnosis (see Figure 2, this page). First, we identified all major encounters between the patient and the health system using hospital and physician billing data over a predetermined period of time.

Next, we mapped each encounter in great detail to understand every action necessary for patient care, from insurance processing to operative cleft repair and follow-up clinic visits. Laying out the key functions required for each encounter requires considerable effort and collaboration among clinic, ward, and operating room staff. Variation and outliers inevitably emerge and should be noted.

To the extent possible, the “standard” care process at a particular institution for a particular disease process should be mapped. If providers use different protocols, branch points can be added to note the major variants. Detailed process mapping efforts were valuable not only for our pilot project, but such efforts helped each department to understand their process flow, which can be adapted to improve internal efficiency.

**Step 2: Measuring outcomes**

Once the pathway of care across providers has been defined, clinically significant outcomes are linked to encounters for routine measurement.
Outcomes can be defined by validated national benchmarks, expert consensus statements, or home-grown metrics when no standard exists. Linking outcomes measures to encounters provides two advantages. First, it improves documentation of each patient’s care through routine measurements across all providers. This approach ensures that the system provides appropriate care to each patient with as little variation as possible, preventing patients from slipping through the cracks and reducing duplication of effort. Second, outcomes are measured and recorded in a consistent manner for every patient, creating a prospective, standardized database with contributions from all points of care. Outcomes can then be audited and used for internal improvement efforts, to answer research questions, or for public reporting. To ensure a complete database, our institution is piloting a strategy in which data collection is linked to billing codes, so that a provider cannot bill without entering outcomes data. We recognize the workflow disruption these efforts may cause, but believe that the importance of outcomes data not only outweighs the added burden, but will become standard in the near future.

☑ Step 3: Measuring costs

The terms “costs” and “charges” are frequently used interchangeably, but are not the same thing. Charges are the list prices seen by insurers when hospitals and physicians generate bills for the services they provided. Large public and private insurers receive significant discounts based on negotiated contracts, whereas smaller insurers and self-pay patients do not have this bargaining power. From the insurer’s perspective, the discounted provider charge represents their cost or payment for services rendered. From the provider’s perspective, charges do not accurately represent the costs of providing patient care. Costs are derived from the inputs of resources used in the care of patients, including the cost of supplies, the cost of personnel, and the cost of shared capital expenses. Many factors may influence charges, such as payor mix, local competition, regulations, and other political factors, but cost of inputs is rarely the main influence. Efforts to control costs must focus on accurate measurement of these inputs to identify and target the largest cost drivers within a system.

Measuring true input costs across a fragmented system is perhaps the most difficult component of our provider-led value measurement strategy. For integrated health care systems, such as Geisinger Health System, all providers are employed by the system and captured within an integrated cost accounting process. At our institution, and in the majority of U.S. health care markets, general ledgers, time sheets, and billing systems are separate between the hospital and physicians. Sharing of these data can be a sensitive issue and requires strong leadership with a focus on the collective goals among all stakeholders.

In our experience, hospitals possess more advanced finance systems that account for patient-level costs. Physician groups, with limited economies of scale, rely on the resource-based relative value scale (RBRVS) as a proxy for cost. The RBRVS was created to provide compensation for a wide variety of procedures across a wide variety of specialties throughout the country using relative value units (RVUs). However, RVU-based charges possess little relation to resources consumed at the diagnosis or patient level. In an era in which provider- and system-level variations have drawn the attention of policymakers in the fight to decrease costs and increase quality, an aggregated RVU across all specialties is insufficient. Providers must learn to measure their individual resource use, including their time in relation to the types of patients they serve.

To address these complexities, we have begun a pilot project to measure individual resource inputs based on methodologies used in non-health care industries. Outside of health care, no accounting department would use an average price or cost for all similar products, regardless of the manufacturer. Each company understands the detailed costs of inputs to produce their goods, and prices their product accordingly. Delivering high-quality health care services to patients is more complex than building a widget, but providers can take away some lessons from the system-level cost measurement method used outside of health care.

Next steps

We have developed a stepwise strategy to measure and improve health care value from the provider’s perspective and have made substan-
tial progress toward developing an integrated measurement protocol within a disjointed system. We recognize that our organization enjoys a close relationship between its physicians’ organization and the hospital. The diagnosis we chose to pilot—cleft lip and palate—is also well-known for having coordinated, multidisciplinary care. Despite these advantages, we believe that our experience can resonate with health care systems throughout the country.

In building the case for ACOs, research shows that the majority of patients and providers function within a limited network. Therefore, with good leadership, a logical strategy, and collaboration, provider-led integrated measurements may be plausible even before payment reforms force us to create formal networks. At the very least, mapping the care process for specific diagnoses and measuring integrated outcomes and costs will teach providers the skills to succeed in a future dominated by integrated systems and ensure appropriate compensation for necessary care when payment reform does arrive.

References

ACCOUNTABLE CARE ORGANIZATIONS:

A primer for surgeons

by Ingrid Ganske, MD, MPA;
Megan M. Abbott, MD, MPH;
and John Meara, MD, DMD, FACS
Accountable care organizations (ACOs) are part of a host of delivery system reforms included in the Affordable Care Act that are designed to achieve lower costs, improved care, and better health. The Centers for Medicare & Medicaid Services (CMS) released a provisional rule at the end of March to further define and regulate ACOs by CMS as an organization of health care providers that agrees to be accountable for the quality, cost, and overall care of assigned Medicare beneficiaries who are enrolled in the traditional fee-for-service program. Physicians and hospitals in ACOs will be eligible to share any savings they generate from care provided to Medicare patients, while working together toward higher quality standards.

CMS requires that ACOs must meet specific criteria. Essential elements of accountable care organizations include:

- Physicians, hospitals, and insurers (in various combinations) enter into a legal contract of at least three years, which provides a structure to distribute payments for shared savings amongst its participating providers.
- The core of the ACO is comprised of primary care providers.
- An ACO must care for at least 5,000 patients.
- An ACO must strive to reduce overall health expenditures and improve quality.
- An ACO must report on a number of quality standards, prevention measures, acute care measures, chronic care measures, and resource efficiency measures.

Several types of organizations will be eligible to participate as ACOs, allowing flexibility for existing groups to combine to form ACOs in various arrangements:

- ACO professionals (for example, physicians and hospitals meeting the statutory definition) in group practice arrangements
- Networks of individual practices of ACO professionals
- Partnerships or joint venture arrangements between hospitals and ACO professionals
- Hospitals employing ACO professionals
- Other Medicare providers and suppliers as determined by the Secretary of Health and Human Services

Efficiency is one side of the coin; quality is the other. More efficient, less costly care will be rewarded with a portion of the savings. To improve overall quality of care, ACOs will have to report on quality standards in key areas assessing adherence to best practice guidelines, coordination of care, and patient satisfaction. Quality reporting will serve as a safeguard against generating savings by limiting access to care or rejecting high-cost patients. ACOs will be eligible for shared savings based on their annual cost per

The concept

ACOs were conceived as a way to address excess health care spending that is generated by overuse and inefficiency of care. ACOs as a solution to overspending in health care stems largely from the work of Elliott Fisher, MD, director of the Center for Health Policy Research at Dartmouth Medical School, Hanover, NH. Dr. Fisher has attributed higher health care spending to the greater use of supply-driven discretionary services such as extra primary care visits, specialist consultations, inpatient rather than outpatient services, imaging, procedures, and lab tests. Medicare reimburses these services on a fee-for-service basis, which, according to Dr. Fisher, creates incentives for physicians and hospitals to continually provide (and bill for) as many of these services as are available. However, evidence suggests that higher Medicare spending is associated with lower overall quality scores, and has not been associated with increased patient satisfaction or improvement in health outcomes.

ACOs are intended to incentivize health care providers and hospitals to join together to provide more efficient services, which is expected to decrease overall costs and improve quality of care. An ACO is defined by CMS as an organization of health care providers that agrees to be accountable for the quality, cost, and overall care of assigned Medicare beneficiaries who are enrolled in the traditional fee-for-service program.
Medicare beneficiary and their performance on the quality indicators, both measured against historical benchmarks.

**The financial model**

Under the current proposal, Medicare would set a benchmark cost for providing care to the average beneficiary based on an estimate of what expenditures would have been in the absence of the ACO, adjusted for patient characteristics and projected national increase in per capita health care expenditures. For example, this could be $10,000 in the first year and updated annually during the three-year period. Savings generated by an ACO below this threshold would be shared between the ACO and Medicare. As a simplified example, an independent practice association could team up with a local hospital to form an ACO. Physicians and the hospital submit their claims to Medicare and are reimbursed through a fee-for-service payment structure. They also collect and report data on 65 quality measures described at a later point in this article. If the cost of care for a particular patient were only $9,000, then Medicare would share a portion of the $1,000 savings with the ACO, adjusted to reflect the ACO’s compliance with quality standards and a number of modifiers detailed later in this article.

ACOs will be able to choose one of two models of cost-sharing and risk-assumption, depending on their preexisting experience with integrated care delivery. For newly minted organizations, a one-sided risk model allows participation for the first two years without assumption of any financial risk for losses if they exceed the benchmark. This option offers up to 50 percent cost sharing in any savings the ACO generates. The second option is a two-sided risk model,

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<th>Table 1. Shared savings program</th>
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<td><strong>Feature</strong></td>
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<td>Base sharing rate</td>
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<td>FQHC/RHC participation incentives</td>
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<td>Maximum sharing rate</td>
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<tr>
<td>Shared loss rate</td>
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<tr>
<td>Minimum saving rate (MSR)</td>
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<tr>
<td>Minimum loss rate (MLR)</td>
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<td>Maximum sharing cap</td>
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<td>Shared loss cap</td>
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<td>Shared savings</td>
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<td>Withholding</td>
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*Eligible for sharing only the savings that exceed the MSR
†Not responsible for repaying Medicare for excess expenditures within the MLR.
‡At the end of each three-year agreement period, positive balances will be returned to the ACO. If the ACO does not complete its agreement, it forfeits any savings withheld.
enabling groups that may already have experience with population management to immediately assume liability for losses up to a shared cap (proposed at 5 percent above the benchmark in the first year, 7.5 percent in the second, and 10 percent in the third year), and in return to share a higher percentage (up to 60 percent) of any savings they can generate. In both models, the total amount an ACO may receive in shared savings is capped as a percentage of the benchmark (7.5 percent for the one-sided model; 10 percent for the two-sided model).

ACOs are designed to be a winning financial proposition for Medicare. If ACOs produce savings, Medicare shares them. If ACOs increase costs, the ACO bears some liability for the losses. Medicare only loses if the costs of an ACO’s patients exceed 107.5 percent (or 110 percent, depending on which model the ACO adopts). In total, CMS estimates that ACOs could create between $190 million and $960 million in federal savings over three years, with a best guess of $510 million. This estimate is based on the expectation of approving 75 to 150 ACOs in this period, covering a total of 1.5 million to 4 million Medicare beneficiaries.

Individual ACOs face a great deal of uncertainty, and several elements of the financial model make it difficult to predict what financial reward, if any, they would earn. First, in addition to assuming losses on any expenditures over the benchmark, ACOs will incur substantial costs to start and maintain. Second, not all of the earned savings will be available to offset these expenses, because as an insurance policy, shared savings will be subject to a 25 percent withholding to offset potential future losses. Third, ACOs will be able to receive additional incentives ranging from 0.5 to 5.0 percent of the savings if they include Federal Qualified Health Centers (FQHCs)—which provide primary health care services to medically underserved communities and vulnerable populations—and Rural Health Centers (RHCs). However, these incentives will depend upon the percentage of patients who make a threshold number of visits to FQHCs and RHCs, and may vary unpredictably from year to year. And finally, in order to reduce administrative fees associated with annual variance in total cost per beneficiary, CMS will only reimburse an ACO if its savings are greater than a Minimum Savings Rate (MSR). In the two-sided risk model, ACOs will only be eligible for cost sharing on savings greater than 2 percent of the benchmark; in the one-sided risk model, the MSR will be variable—the bar will be higher in smaller populations that have a greater variation in expenditures, and lower for larger ACOs with lower variation (see Table 1, page 99).

For the many physician groups and health care executives who are considering whether to establish ACOs, there are few markers by which to guide expectations. The best predictive data comes from CMS’ Physician Group Practice (PGP) Demonstration, which evaluated 10 large physician group practices between 2005 and 2010. In this experiment, the PPGs were eligible for shared savings without any downside liability. Not all the groups were able to produce savings; in fact, few were. In the first year, two PPGs received shared savings payments; in the second year, four received shared savings payments; and by the final year, only half of the PPGs in this experiment qualified for savings. In a recent review of the PGP experiment, researchers note that the participants in the PGP demonstration invested substantially in order to achieve their savings

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<th>Table 2. Quality measures</th>
<th>65 measures</th>
<th>Examples</th>
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<tr>
<td>Patient and caregiver experience</td>
<td>7 measures</td>
<td>Timely care, physician communication skills, shared decision making</td>
</tr>
<tr>
<td>Care coordination</td>
<td>16 measures</td>
<td>30-day post-discharge physician visit, medication reconciliation, all-condition re-admissions</td>
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<tr>
<td>Patient safety</td>
<td>2 measures</td>
<td>Pressure sores, falls, central line infections, surgical site infections</td>
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<tr>
<td>Preventive health</td>
<td>9 measures</td>
<td>Influenza rates, mammography screening rates, clinical depression screening</td>
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<tr>
<td>At-risk population and frail elderly health care</td>
<td>31 measures</td>
<td>Diabetes care, heart failure, and coronary artery disease management</td>
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goals, on average spending $1.7 million in the first year alone. According to their analysis, an ACO would need to reduce costs by 20 percent over the three-year period in order to earn enough in shared savings to recoup this initial expenditure. They conclude that “Given that the percentage of shared savings in the first three years was so low for experienced, integrated physician practices, it seems highly unlikely that newly established, independent practices would be able to average the necessary 20 percent return on their investment.”

As demonstrated by this experiment, the promise of Medicare shared savings may not be enough to motivate the formation of ACOs. However, there are other reasons to be interested in the new model. Some physicians see this model as an inevitable course for health care reform, and the earlier they get on board, the easier the transition will be down the road. Many look to the Kaiser Permanente, Intermountain Healthcare, and Mayo models (large non-profit health systems comprising an insurer, hospitals, and contracted provider groups) as successful pillars of integrated care and are already pursuing similar models; the added promise of shared savings provides incentives and rewards for expediting their efforts.

**Quality improvement**

As a prerequisite to sharing in any savings, an ACO must rigorously demonstrate that it provides high-quality care. Physician-directed quality assurance committees in each ACO will be responsible for collecting and reporting standardized measures in five key areas as well as demonstrating meaningful use of health information technology (see Table 2, page 100). In year one, the prerequisite for receiving any shared savings is full reporting, whereas in years two and three, ACOs will be required to meet minimum performance standards (measured against historical benchmarks). Eventually, CMS plans to give ACOs a performance score with 0 to 2 possible points per measure, with a perfect score totaling 130. This score will be converted to a percentage and multiplied by any eligible shared savings. An ACO achieving a quality score of 112 has an overall score of 80 percent (112/130), thereby qualifying to earn 80 percent of the 65 percent MSR the ACO can earn under the two-sided model with FQHC and RHC participation. This score yields a final sharing rate of 52 percent, which would apply to the total savings it generated above the 2 percent MSR, and cannot exceed 10 percent of the ACOs benchmark cost per patient.

While many of the quality measures overlap with those used in other national quality measurement programs, some of the ACO measures are notably more aggressive, including outcome measures as well as process measures. For instance, measurement of diabetes care with the electronic health record incentive program's clinical quality measures (CQMs) includes measuring glycohemoglobin (HgA1c) levels, blood pressure, and LDL cholesterol. ACOs’ reporting on diabetes care will include maintaining HbA1c less than 8 percent, blood pressure below 140/90, and LDL less than 100.

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<th>Table 3. Laws addressed in the ACO rule</th>
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<tr>
<td>Physician Self-Referral Law (the “Stark Law”)</td>
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<td>Federal Anti-Kickback Statute</td>
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<td>Civil Monetary Penalties Law (the CMP)</td>
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<th>Table 4. Legal waivers for the ACO Medicare shared savings program</th>
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<tr>
<td>• For distribution of shared savings among ACO participants</td>
</tr>
<tr>
<td>• For distribution of shared savings toward other entities for services directly related to the ACOs participation in the Shared Savings Program</td>
</tr>
<tr>
<td>• For certain financial relationships that are necessary for and directly related to the ACO’s participation in the Shared Savings Program</td>
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**Legal accommodations**

ACOs face a number of legal considerations. Specifically, the ACOs’ collaborative incentive schemes are at odds with many of the fraud and abuse laws, including the Stark Law, Anti-Kickback Statute, and Civil Monetary Penalties Laws (CMP). These laws were passed to limit market power and self-referral behaviors that drive up the cost of care; now ACOs are trying to direct these very same behaviors toward driving down costs. Anti-kickback issues may arise if physicians are rewarded for making referrals within the ACO to other providers who have a shared stake in reducing...
costs of care for their set of Medicare patients. The CMP prohibits incentives to provide discrepant care to Medicare patients, seeking to protect them from substandard care; however, the statute applies regardless of the medical necessity or inappropriate use of the services and, therefore, may conflict with the incentives provided to ACOs to reduce costs for these patients (see Table 3, page 101).

The effectiveness of ACOs may depend on exemption from, or relaxation of, these regulations. However, significant relaxation of these regulations could potentially lead to opportunistic participation by organizations with only a secondary interest in improving efficiency or quality for the affected Medicare constituency. The Department of Health and Human Services has acknowledged these conflicts in the shared savings program, and has proposed relaxing regulations in only three limited circumstances to avoid abuse (see Table 4, page 101).

Antitrust regulation will be a key component of ACO regulation. Skeptics of ACOs point out that the major economic incentive to form such organizations may not be cost-sharing with Medicare but, rather, gaining market power and better contracts in the provision of care for non-Medicare patients. As Richman and Schullman argue in a recent Journal of the American Medical Association article, ACOs may be more likely to fix prices and exacerbate monopolistic imbalances, especially if they would have otherwise been in competition among themselves.10

Provider consolidation in private insurance markets poses a potential challenge to health care affordability—researchers have estimated that hospital mergers have led to a price increase of 40 percent in local markets.11 To counteract this, ACOs will be routinely monitored for potential monopolistic behavior. ACOs with a combined market share of 30 percent or less of the primary service area will be considered in the “safety zone,” and those with a market share less than or equal to 50 percent will be able to operate without scrutiny of antitrust regulations.

Another major legal issue concerns the tax-exempt status of many of the organizations that will participate in the shared savings program, and the potential for net earnings accruing to the benefit of knowledgeable inside participants. ACOs will need to demonstrate to the Internal Revenue Service that they are not inappropriately siphoning shared savings (or losses) toward tax-exempt parties within the overall ACO structure.

Internal structure

CMS has intentionally avoided a one-size-fits-all model in order to foster creative new ways to streamline care and to allow enough flexibility for ACOs to emerge within existing local health care parameters. There are four basic models, with various combinations of providers, provider groups, and hospitals (see figure, page 102).

Primary care providers (defined as doctors of medicine and osteopathy, family practice, general practice, and geriatric medicine) may only participate in one ACO, and Medicare patients who receive a majority of their primary care services from these providers will be assigned to that ACO. The ACO shared saving scheme makes providers’ payments dependent on the number of services and cost of services delivered by other providers. Critical to the successful ACO will be a high level of coordination of care between primary care physicians and specialists (whether or not they are in the ACO).

The process of forming an ACO will entail a renegotiation of the balance of power and decision-making authority between practice groups, hospitals, primary care providers, and specialists, as each group will be affected differently depending on the priorities and sharing policy of the ACO. Shared savings can be wholly or partially allocated among the participants in a number of ways—according to the proportion of savings an individual or department generates, flat percentages, or negotiated quantities—creating an opportunity to accommodate for disproportionate losses to some participants and incentivize participation by others.

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As Kocher and Sahni note in an article published in *The New England Journal of Medicine*, whoever controls the ACO will control the largest share of savings. How savings are generated will likely depend on who makes the relevant decisions. For example, an ACO comprised entirely of physicians might focus predominantly on decreasing hospital admissions and lengths of stay. The savings to the ACO (split between the physicians and federal government) will represent a loss of revenue to the hospitals. On the other hand, a hospital-controlled ACO might attempt to constrain salaries and reduce the number of tests and procedures provided. If hospitals are ultimately better able to form ACOs than physician-led groups or even physician-hospital partnerships, this may lead to increased salaried employment of physicians.

Although ACOs are only required to have primary care physicians, they are responsible for all expenses for their Medicare beneficiaries, including specialist fees and any care sought outside the ACO.Bringing specialists into the arrangements allows ACOs to refer their patients to providers who are working toward common savings goals. Specialists will be allowed to join more than one ACO, each of which may require different criteria for specialist participation through performance measures, mandating use of information technology, or limiting use of equipment to negotiated and approved devices and products. With much of the savings expected to come from reduced referrals and procedures, specialists may seek compensation for their reduced business, for instance by entering into compensatory salary agreements or negotiating a higher portion of the savings distribution. However, because of the high degree of uncertainty about whether an ACO will generate eligible shared savings, ACOs may find it hard to guarantee upfront incentives to recruit the specialists who are most likely to contribute to cost savings in competitive markets. Then again, specialists choosing to remain outside of ACOs potentially face challenges as well. They will not benefit from shared savings and may have patients directed away from them unless they can prove they offer lower-cost services, higher quality, or both.

**Patient participation**

Critics have accused ACOs of being “managed care lite.” But several key distinctions exist between ACOs and HMOs, perhaps the most important being that ACO patients are not restricted to stay in network. If patients choose to participate, they will still be able to seek care from non-ACO affiliated care providers, without pre-authorization or other hurdles. This means there is less control over patient choice of the sort that created a backlash to managed care in the 1990s. It also means that ACOs have imperfect control over a large portion of costs accrued by its Medicare patients, and that savings may be limited.

Patient participation in ACOs will be voluntary and transparent. All beneficiaries will be notified about whether a caregiver participates in an ACO, provided with explanatory materials about the ACO, and informed that the ACO will share in savings from improved coordination of their medical services. Quality performance scores and shared savings or losses for each ACO will be available to the public.

**Table 5. ACO versus HMO**

<table>
<thead>
<tr>
<th></th>
<th>ACO</th>
<th>HMO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountability</td>
<td>Provider</td>
<td>Payor</td>
</tr>
<tr>
<td>Patient choice</td>
<td>Mildly limited, based on referral patterns</td>
<td>Exclusively in network</td>
</tr>
<tr>
<td>Type of organization</td>
<td>Flexible (IPA, PHO, etc)</td>
<td>One size fits all</td>
</tr>
<tr>
<td>PCP role</td>
<td>Care coordinator</td>
<td>Gatekeeper</td>
</tr>
<tr>
<td>Payment models</td>
<td>Based jointly on quality and efficiency</td>
<td>Encourage limiting access</td>
</tr>
</tbody>
</table>

**Dr. Abbott** is a resident in otorhinolaryngology-head and neck surgery, Massachusetts Eye and Ear Infirmary/Harvard combined program in Boston. She is currently completing a clinical research fellowship at Children's Hospital, Boston, MA.
so that patients may switch providers and ACOs in an informed manner.

Another key distinction from HMOs is that, for ACOs, accountability rests with providers and, in large part, with physicians—a group trusted by patients and dedicated to patient care—rather than with insurance companies. Nevertheless, success of the endeavor will require good public relations efforts. As history has shown, patients will be reluctant to sign up if they think ACOs are going to limit their choices and access (see Table 5, page 104).

**Conclusion**

Since the publication of the provisional rule for ACOs in March, many critics have expressed concerns that the regulations create challenging parameters within which to produce shared savings. Proposed modifications to attract ACO participants have included lowering the minimum savings rate, reducing the data collection requirements that pose a barrier to entry, or eliminating the 25 percent withholding. Despite the various critiques, there is still an optimistic sense that ACOs will be able to bend the national health care cost curve in a favorable direction. Much attention will be paid to the first cycle, which, as of now, is still set to begin in 2012. If individual ACOs are not able to net positive compensation, or if patients are wary of participating in the program, ACOs may ultimately have a limited impact. But in the meantime, many organizations will be laying the groundwork for forming ACOs in expectation of success. Surgeons should anticipate that the early decisions and initial framework for any emerging ACO could have a strong bearing on the structure of their practice and patient care, and they are encouraged to participate in these discussions.

**References**


Dr. Meara is plastic surgeon-in-chief, Children’s Hospital Boston, and associate professor of surgery and director of the program in global surgery and social change, Harvard Medical School, Boston, MA. He is Chair of the College’s Legislative Committee.
A recent issue of the Bulletin featured a primer for surgeons on accountable care organizations (ACOs). The authors of that article provided information based on the proposed rule implementing the Medicare Shared Savings Program (MSSP), which the Centers for Medicare & Medicaid Services (CMS) issued on April 7, 2011. They also relied on related documents issued by CMS and other federal agencies, including the Office of the Inspector General of the Department of Health and Human Services, the Department of Justice, the Federal Trade Commission, and the Internal Revenue Service.

This article picks up where that one left off and is based on information in the final rule published by CMS on November 2, 2011, and other related documents. It also considers a related Pioneer ACO initiative being conducted by the Center for Medicare and Medicaid Innovation (CMMI), a new CMS component. Finally, this article explores the potential implications of the various Medicare ACO programs for surgeons and their patients.

How does the final rule describe ACOs?

In the Medicare context, an ACO is an organization of health care providers that agrees to be accountable for the quality, cost, and overall care of Medicare beneficiaries who are assigned to it. It is especially important to understand that, while accountable, an ACO is not required to directly provide all the services its assigned Medicare beneficiaries need. In fact, unlike the Medicare Advantage Program enrollees, beneficiaries assigned to an ACO retain full freedom of choice with respect to where they receive their services. They are not locked in.

How does the final rule define an ACO professional, participant, and provider/supplier?

- **ACO professional**: An ACO provider/supplier who is a physician (for this purpose, the term refers only to doctors of medicine and osteopathy), physician assistant, nurse practitioner, or clinical nurse specialist (note that the term “supplier” in this instance includes physicians)
- **ACO participant**: An individual or group of ACO provider(s)/supplier(s) that is identified by a Medicare-enrolled tax identification number (TIN), that alone or together with one or more other ACO participants comprise(s) an ACO
- **ACO provider/supplier**: An individual or entity that bills for items or services it furnishes to Medicare fee-for-service beneficiaries under a Medicare billing number assigned to the TIN (typically a National Provider Identifier or NPI) or an ACO participant and is included on the list of ACO providers/suppliers

To shed further light on the interplay of these definitions, ACO professionals are capable of independently forming an ACO under the MSSP, perhaps in company with one or more hospitals. The broad definition of ACO participant clearly indicates that essentially any professional or provider who bills Medicare may participate in an ACO. For example, whereas podiatrists, optometrists, or physical therapists do not meet the definition of ACO professional, they could nonetheless become ACO participants. Finally, in comparing the terms ACO provider/supplier and ACO participant, the former could, for example, refer to an individual surgeon in a group practice, whereas the latter would refer to the entire group practice.

Does the final rule respond to the concerns that stakeholders expressed about the proposed rule?

Yes. The final rule has been better received and makes a large number of changes clearly intended to increase interest in the ACO concept. These changes include the following:
- Less burdensome governance and structural requirements, with ACOs allowed to add or subtract ACO participants throughout the course of their agreement with CMS
- Fewer performance measures
- A revised beneficiary assignment methodology (final assignment is still retrospective but CMS will now also make periodic, preliminary assignments
based on the latest available data)

- ACOs may choose a shared savings-only model for the initial three years and not be forced to switch to a model involving shared losses in year three
- Greater financial rewards for ACOs (once savings achieve the minimum savings rate assigned to an ACO, 2 percent to 3.9 percent, first dollar savings can be shared, with the maximum shared savings rate ranging from 50 percent to 60 percent)
- A significantly revised methodology for calculating ACO expenditure benchmarks and expenditures for ACO-assigned beneficiaries (most notably, these calculations now exclude both direct and indirect medical education payments and disproportionate share payments made to hospitals, which should help produce a level playing field for teaching hospitals)

What quality measures are in the rule, and how will they be measured?

Table 1 on this page and the measure list (Table 2, page 109) show how ACO performance in the MSSP will initially be assessed, using 33 quality measures across four measure domains. Surgeons will notice that the initial measure list is quite weak on surgical care. Nonetheless, ACOs in the MSSP will have to achieve a minimum level of performance on these measures to qualify for shared savings. Producing shared savings alone will be insufficient. This requirement is obviously viewed as a beneficiary protection. In addition, the performance measure list is likely to evolve over time, based on stakeholder input. However, for year one of the MSSP, only data reporting is required for all measures; in subsequent years, performance above the 30th percentile or 30 percent level on measures will become increasingly important.

How will beneficiaries be assigned to ACOs?

Beneficiary assignment to ACOs under the MSSP is a two-step process. The first consideration is where a beneficiary has received the plurality of Medicare-allowed charges for primary care. Under the rule, primary care services include the CPT/HCPCS codes for office, nursing home, rest home, home, and wellness visits. Thus—if a beneficiary over the course of a calendar year received the plurality of his or her primary care services from primary care physicians participating in an ACO—that beneficiary would be (retrospectively) assigned to the ACO at the end of a performance period. However, if a beneficiary receives no services from a primary care physician (inside or outside of the ACO), then assignment would be based on where the beneficiary received most of his or her primary care services from physicians, including specialists, and certain nonphysician practitioners (such as nurse practitioners, physician assistants, and clinical nurse specialists).

This new, two-step assignment methodology could have important implications for specialists who provide primary care services (for example, office visits) because a beneficiary could theoretically be assigned to an ACO based on the services provided by specialists participating in that ACO. More specifically, CMS has stated that:

Each ACO participant TIN upon which beneficiary assignment is dependent [not just primary care physicians] must be exclusive to one...ACO for purposes of Medicare beneficiary assignment. ACO participant TINs upon which beneficiary assignment is not dependent are not required to be exclusive to one...ACO.3

While the full implications of this exclusivity policy are uncertain, and the matter is likely to require further clarification from CMS, it seems reasonably clear that at least some specialists might only be able to participate in a single Medicare ACO.

| Table 1. Four quality performance measurement domains |
| Domain | Category | Number of measures (measure #s) |
| Patient/caregiver experience | 7 (1–7) |
| Care coordination/patient safety | 6 (8–13) |
| Preventive health | 8 (14–21) |
| At-risk population | Diabetes 6 (22–27) |
| Heart failure | 1 (28) |
| Coronary artery disease | 2 (29–30) |
| Hypertension | 1 (31) |
| Ischemic vascular disease | 2 (32–33) |
What are the application deadlines for the 2012 MSSP?

There will be two start dates for interested organizations, April 1 and July 1; after that, a single annual start date is envisioned. Organizations interested in applying for the MSSP began by submitting a Notice of Intent (NOI) to apply. For those interested in an April 1 start date, the NOI was due by January 6. For those interested in the July start date, the NOIs were due by February 17. The application deadlines for the two start dates were or are January 20 and March 30, respectively. CMS’ target dates for announcing its decisions on applications are March 16 (for the April start date), and May 31 (for the July start date). Comparable deadlines for the 2013 MSSP have not yet been announced.

What is CMS doing to encourage participation in the MSSP?

To facilitate participation in the MSSP, CMS has created a mechanism for certain organizations to receive upfront funding to assist in ACO development and operations. This mechanism is formally known as the Advanced Payment Model.4 This mechanism will only be available to organizations applying to participate in the MSSP for 2012. In addition, advanced payments are only available to two types of organizations:

- ACOs that do not include any inpatient facilities and have less than $50 million in total annual revenue
- ACOs in which the only inpatient facilities are critical access hospitals and/or Medicare

### Table 2. ACO performance measures under the MSSP

<table>
<thead>
<tr>
<th></th>
<th>Performance Measure</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Consumer Assessment of Health Providers and Systems (CAHPS): Getting timely care, appointments, and information</td>
</tr>
<tr>
<td>2.</td>
<td>CAHPS: How well your doctors communicate</td>
</tr>
<tr>
<td>3.</td>
<td>CAHPS: Patients’ ratings of doctor</td>
</tr>
<tr>
<td>4.</td>
<td>CAHPS: Access to specialists</td>
</tr>
<tr>
<td>5.</td>
<td>CAHPS: Health promotion and education</td>
</tr>
<tr>
<td>6.</td>
<td>CAHPS: Shared decision making</td>
</tr>
<tr>
<td>7.</td>
<td>CAHPS: Health status/functional status</td>
</tr>
<tr>
<td>8.</td>
<td>Risk-standardized, all condition readmission</td>
</tr>
<tr>
<td>10.</td>
<td>Ambulatory sensitive conditions admissions: CHF (AHRQ PQI #8)</td>
</tr>
<tr>
<td>11.</td>
<td>Percent of primary care physicians who successfully qualify for an electronic health record incentive program payment (Medicare or Medicaid)</td>
</tr>
<tr>
<td>12.</td>
<td>Medication reconciliation: Reconciliation after discharge from an inpatient facility</td>
</tr>
<tr>
<td>13.</td>
<td>Falls: Screening for fall risk</td>
</tr>
<tr>
<td>14.</td>
<td>Influenza immunization</td>
</tr>
<tr>
<td>15.</td>
<td>Pneumococcal vaccination</td>
</tr>
<tr>
<td>16.</td>
<td>Adult weight screening and follow-up</td>
</tr>
<tr>
<td>17.</td>
<td>Tobacco use assessment and tobacco cessation intervention</td>
</tr>
<tr>
<td>18.</td>
<td>Depression screening</td>
</tr>
<tr>
<td>19.</td>
<td>Colorectal cancer screening</td>
</tr>
<tr>
<td>20.</td>
<td>Mammography screening</td>
</tr>
<tr>
<td>21.</td>
<td>Proportion of adults 18+ who had their blood pressure measured within the preceding two years</td>
</tr>
<tr>
<td>22.</td>
<td>Diabetes composite (all or nothing scoring): hemoglobin a1c control (&lt;8 percent)</td>
</tr>
<tr>
<td>23.</td>
<td>Diabetes composite (all or nothing scoring): low-density lipoprotein (&lt;100)</td>
</tr>
<tr>
<td>24.</td>
<td>Diabetes composite (all or nothing scoring): blood pressure &lt;140/90</td>
</tr>
<tr>
<td>25.</td>
<td>Diabetes composite (all or nothing scoring): tobacco non use</td>
</tr>
<tr>
<td>26.</td>
<td>Diabetes composite (all or nothing scoring): Aspirin use</td>
</tr>
<tr>
<td>27.</td>
<td>Diabetes mellitus: Hemoglobin a1c poor control (&gt;9 percent)</td>
</tr>
<tr>
<td>28.</td>
<td>Hypertension: Blood pressure control</td>
</tr>
<tr>
<td>29.</td>
<td>Ischemic vascular disease (IVD): Complete lipid profile and LDL control &lt;100 mg/dl</td>
</tr>
<tr>
<td>30.</td>
<td>IVD: Use of aspirin or another antithrombotic</td>
</tr>
<tr>
<td>31.</td>
<td>Heart failure: Beta-blocker therapy for left ventricular systolic function</td>
</tr>
<tr>
<td>32.</td>
<td>Coronary artery disease (CAD) composite (all or nothing scoring): Drug therapy for lowering LDL-cholesterol</td>
</tr>
<tr>
<td>33.</td>
<td>CAD composite (all or nothing scoring): Angiotensin-converting enzyme inhibitor or angiotensin receptor blocker therapy for patients with CAD and diabetes and/or left ventricular systolic dysfunction</td>
</tr>
</tbody>
</table>

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4. Advanced Payment Model - More details can be found in the original document.
low-volume rural hospitals that have less than $80 million in total annual revenue

Under the Advanced Payment Model, eligible organizations approved by CMS would gain up-front access to capital but they would essentially be “borrowing against” expected future shared savings because of their participation in the MSSP.

What is the interest level among providers?

Despite all the changes in the MSSP final rule, the level of interest in the option remains uncertain, especially with respect to 2012 start dates. CMS estimates that 50 to 270 ACOs will be participating in the MSSP in the first four years (CY 2012–2015), serving 1 to 5 million Medicare beneficiaries. CMS “median” estimates include $470 million in net Medicare savings, $1.31 billion in shared savings payments to ACOs, nothing in shared losses, and $451 million in ACO start-up and continued investment costs.

What is going on with the Pioneer ACO initiative?

On December 19, 2011, CMS announced that 32 health care organizations had been selected to participate in the Pioneer ACO initiative. This initiative, directed by the CMMI, was designed expressly for organizations “with experience offering coordinated, patient-centered care, and operating in ACO-like environments.” Unlike the MSSP, the Pioneer ACO initiative will require participants to partner with non-Medicare payors as well as Medicare in shared savings-types of arrangements. It may also eventually involve partial capitation payments (not just normal fee-for-service payments). In addition, under the Pioneer ACO initiative, beneficiary assignment can be prospective rather than retrospective. The Pioneer ACO initiative resembles the MSSP in that participating ACOs may qualify to receive shared savings if they maintain quality at acceptable levels and reduce Medicare expenditures below specified levels. In turn, the ACOs will have the responsibility of allocating shared savings across their ACO participants.

The 32 organizations selected to participate in the Pioneer ACO are listed in Table 3, page 111, with organizations in the same state listed together.

More detailed information about each of the selected organizations, including affiliated hospitals, can be found on the CMMI website.

How will Medicare ACO programs affect me?

First, it’s important to remember that the MSSP is not a demonstration or pilot project, but an entirely new way of doing business with the Medicare program. In addition, as should be evident from a review of selected Pioneer ACOs, this separate initiative, which is a demonstration project, covers a wide swath of the health care marketplace. Hence, some surgeons may be part of an organization participating in the Pioneer ACO program or know that their organization is planning to apply for the MSSP. Other readers may practice in communities that already have or will soon have Medicare ACOs. And, if there is a Medicare ACO in your community, it is possible for your practice to exist either inside or outside of the ACO.

Although Medicare beneficiaries assigned to an ACO will retain full freedom of choice, it would be foolhardy to assume that ACOs might not alter patient referral patterns in a community over time. In this regard, an ACO might preferentially “suggest” or “recommend” that beneficiaries obtain specialty care from specialists participating in the ACO (with these specialists sharing in any Medicare savings produced). On the other hand, an ACO might also favor referring patients to non-ACO participants if doing so is likely to result in high-quality, low-cost care. Also of note, an ACO would be under no obligation to share savings that might be produced by cost-efficient surgeons not participating in the ACO (the ACO would not necessarily be precluded from doing so, provided it was careful not to run afoul of federal or state anti-kickback or physician self-referral laws, as well as the Civil Monetary Penalty Law).

What about billing for services under the MSSP?

Medicare payments under the MSSP and billing for services furnished by all involved providers and suppliers would be unchanged. For example, surgeons would continue to bill for the services they provide to all Medicare beneficiaries, including those who will ultimately be assigned to an ACO, and they would continue to be paid individually on the usual fee-for-service basis. What would change is that at the end of a performance period, CMS would determine whether shareable savings have been produced by the ACO as a whole and, if so, pay the ACO a portion of these savings based on the ACO’s quality performance scores. The ACO
would, in turn, have to decide how to allocate the savings among its ACO participants.

How will ACOs determine the allocation of any Medicare shared savings?

CMS believes that it does not have the legal authority to dictate how shared savings are distributed and anticipates that ACO participants would negotiate and determine among themselves how to equitably distribute shared savings or use these savings to meet the goals of the MSSP program. Nonetheless, MSSP applicants must indicate how they plan to use potential shared savings to meet the goals of the MSSP, including the criteria that will be used to distribute shared savings among ACO participants. That said, there is very little specific information or consensus about appropriate methodologies for allocating shared savings. For example, to what extent should such allocations be based on individual physician performance in the areas of quality, efficiency, or other measures?

It is also worth emphasizing that under an ACO-like demonstration project, the Physician Group Practice (PGP) Demonstration program, the participating sites that received shared savings appear to have simply used the payments organization-wide (for example, to help acquire health information technology), rather than allocating them to individual physicians.

In any event, shared savings raise the potential that physicians who reduce Medicare expenditures (for example, by taking steps that help decrease hospital admissions or readmissions) could essentially end up receiving a portion of Medicare Part A payments that would otherwise have gone to a hospital, in addition to the Medicare Part B payment they received for their professional services.

What are the chances that an ACO will be able to produce shareable savings?

This is obviously a question that an organization interested in applying to become a Medicare ACO needs to ask and answer. Suffice it to say that, all other things being equal, it would be more challenging for an ACO in a historically low-cost area to receive shared savings because the expenditure benchmarks for each ACO are set locally, based on historic data. Thus, an organization that has historically adopted conservative care practices would likely find it more

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**Table 3. Pioneer ACO participating organizations (alphabetical by state)**

<table>
<thead>
<tr>
<th>Organization</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banner Health Network, Phoenix, AZ, metropolitan area (Maricopa and Pinal Counties)</td>
<td>Arizona</td>
</tr>
<tr>
<td>Brown &amp; Toland Physicians, San Francisco Bay Area, CA</td>
<td>California</td>
</tr>
<tr>
<td>Healthcare Partners Medical Group, Los Angeles and Orange Counties, CA</td>
<td>California</td>
</tr>
<tr>
<td>Heritage California ACO, southern, central, and coastal California</td>
<td>California</td>
</tr>
<tr>
<td>Monarch Healthcare, Orange County, CA</td>
<td>California</td>
</tr>
<tr>
<td>Primecare Medical Network, southern California (San Bernardino and Riverside Counties)</td>
<td>California</td>
</tr>
<tr>
<td>Sharp Healthcare System, San Diego County, CA</td>
<td>California</td>
</tr>
<tr>
<td>Physician Health Partners, Denver, CO, metropolitan area</td>
<td>Colorado</td>
</tr>
<tr>
<td>JSA Medical Group, a Division of HealthCare Partners, Orlando, Tampa Bay, and surrounding south Florida</td>
<td>Florida</td>
</tr>
<tr>
<td>OSF Healthcare System, central Illinois</td>
<td>Illinois</td>
</tr>
<tr>
<td>Franciscan Alliance, Indianapolis and central Indiana</td>
<td>Indiana</td>
</tr>
<tr>
<td>TriHealth, Inc., northwest central Iowa</td>
<td>Iowa</td>
</tr>
<tr>
<td>Eastern Maine Healthcare System, central, eastern, and northern Maine</td>
<td>Maine</td>
</tr>
<tr>
<td>Atrius Health Services, eastern and central Massachusetts</td>
<td>Massachusetts</td>
</tr>
<tr>
<td>Beth Israel Deaconess Physician Organization, eastern Massachusetts</td>
<td>Massachusetts</td>
</tr>
<tr>
<td>Mount Auburn Cambridge Independent Practice Association (MACIPA), eastern Massachusetts</td>
<td>Massachusetts</td>
</tr>
<tr>
<td>Partners Healthcare, eastern Massachusetts</td>
<td>Massachusetts</td>
</tr>
<tr>
<td>Steward Healthcare System, eastern Massachusetts</td>
<td>Massachusetts</td>
</tr>
<tr>
<td>Genesys PHO, southeastern Michigan</td>
<td>Michigan</td>
</tr>
<tr>
<td>Michigan Pioneer ACO, southeastern Michigan</td>
<td>Michigan</td>
</tr>
<tr>
<td>University of Michigan, southeastern Michigan</td>
<td>Michigan</td>
</tr>
<tr>
<td>Allina Hospitals &amp; Clinics, Minnesota and western Wisconsin</td>
<td>Minnesota</td>
</tr>
<tr>
<td>Fairview Health Systems, Minneapolis, MN, metropolitan area</td>
<td>Minnesota</td>
</tr>
<tr>
<td>Park Nicollet Health Services, Minneapolis, MN, metropolitan area</td>
<td>Minnesota</td>
</tr>
<tr>
<td>Healthcare Partners of Nevada, Clark and Nye Counties, NV</td>
<td>Nevada</td>
</tr>
<tr>
<td>Dartmouth-Hitchcock ACO, New Hampshire and eastern Vermont</td>
<td>New Hampshire</td>
</tr>
<tr>
<td>Presbyterian Healthcare Services–Central New Mexico Pioneer Accountable Care Organization, central New Mexico</td>
<td>New Mexico</td>
</tr>
<tr>
<td>Bronx Accountable Healthcare Network (BAHN), New York City (the Bronx) and lower Westchester County, NY</td>
<td>New York</td>
</tr>
<tr>
<td>Renaissance Medical Management Company, southeastern Pennsylvania</td>
<td>Pennsylvania</td>
</tr>
<tr>
<td>North Texas Specialty Physicians, Tarrant, Johnson, and Parker Counties in north Texas</td>
<td>Texas</td>
</tr>
<tr>
<td>Seton Health Alliance, central Texas (11 county areas, including Austin)</td>
<td>Texas</td>
</tr>
<tr>
<td>Bellin-Thedacare Healthcare Partners, northeast Wisconsin</td>
<td>Wisconsin</td>
</tr>
</tbody>
</table>
difficult to produce savings than an organization located in a high health care cost area. In addition, because ACO benchmarks will be re-based roughly every three years, savings achieved during one agreement period would be expected to yield lower expenditure benchmarks in the future, making it ever-more challenging to continue to qualify for shared savings.

How will Medicare beneficiaries react to the ACO concept?

The answer to this key question is largely unknown. CMS will develop a communications plan, including educational materials and other forms of outreach, to help educate beneficiaries about the MSSP. This exercise could be a delicate and challenging one, as most objective observers acknowledge that the ACO concept entails both potential benefits and potential risks for Medicare beneficiaries. ACOs also will be required to post signs in the facilities of participating ACO providers and suppliers and to make available standardized written information to Medicare fee-for-service beneficiaries whom they serve. Because beneficiary assignment to an ACO is retrospective, a beneficiary receiving care early in the year from a surgeon participating in an ACO—and being formally informed of such participation—might actually not get assigned to that ACO at the end of the year. In any event, any negative beneficiary reaction to the ACO concept, akin to the historic backlash against managed care, could have far-reaching implications for physicians and other ACO participants.

What other concerns do various stakeholders have?

Hospitals worry that some types of ACOs will seek to produce Medicare shared savings by substantially reducing hospital admissions and the use of other hospital-provided services. Health care technology producers worry that ACOs will end up denying beneficiaries prompt access to the latest technology in order to produce shared savings. Pharmaceutical companies worry that because Medicare Part D (prescription drug) costs do not count against ACOs, they will end up switching patients from pharmaceuticals covered under Medicare Part B, such as drugs administered intravenously in a physician’s office, to drugs covered under Medicare Part D, even if the latter might be less effective or otherwise carry more risk for patients. Employers and private insurers worry that ACOs participating in the Medicare program will attempt to produce Medicare shared savings by shifting costs to the private sector or that ACOs will use their market power to demand higher payments for privately insured patients.

Suffice it to say that the future of the MSSP—and of the ACO concept generally—is uncertain, but even the busiest of surgeons would be ill-advised to pretend that nothing has changed.

References


Dr. Desmarais is a principal at Health Policy Alternatives, Inc., Washington, DC.
Liability Reform
New approaches to liability reform
The current medical liability system in the U.S. is broken. It is costly, draining the health care system of approximately $55.6 billion per year and accounting for 2.4 percent of annual health care spending. An estimated $45.6 billion is spent on defensive medicine. Of the money spent within the medical liability system itself (excluding defensive medicine), administrative costs comprise 54 to 60 percent of total costs, including attorneys' fees and other overhead.

Furthermore, fewer than 3 percent of patients who are injured as a result of medical errors ever seek compensation for their injuries. Additionally, nearly 25 percent of awards are not factually supported by the merits of the case. Fear of litigation leads practitioners to modify their practices to focus on specialties with lower risk and to avoid procedures and patients perceived as higher risk.

Drivers of inefficiencies
Many stakeholders have stated that the liability system is simply too costly and inefficient, and the process of compensating injuries related to medical errors too inaccurate. How did we get here, and why is change so difficult? Surely, no one would purposefully devise a system like this.

Several forces have converged to create this expensive, inefficient, and damaging system. First, the medical liability system is based on tort law—an adversarial process in which the plaintiff must prove that the breach of a duty caused injury resulting in damages. In theory, this process is meant to illuminate the truth through discovery, expert testimony, and cross-examination in order “to deter unsafe practices, to compensate persons injured through negligence, and to exact corrective justice.” By its very nature the process is contentious and can be emotionally and financially damaging to both sides involved. It is not linked to quality and safety improvements; the process is purely an ex post facto financial resolution.

Second, tort law differs from state to state, making national reforms very challenging. In the U.S., reforms to personal injury law in the 1960s and 1970s reduced the barriers for injured patients to file claims. Liability claims rose, sparking the liability insurance crises of the early 1970s and mid-1980s. In the past 40 or 50 years, a number of states have experienced liability crises, influenced in part by market forces and successive reforms to the liability system. Each crisis renews discussion of reform. Calls for reform, however, have been met by deeply entrenched opposition. Some health policy experts claim the Obama Administration did not pursue medical liability reform as part of the Affordable Care Act for precisely this reason. The Administration did not want opposition to liability reform to derail health care reform at large.

New direction
Traditionally, the American College of Surgeons (ACS) and other physicians’ groups have advocated for tort reform to address the problems in the liability system. These reforms may include caps on noneconomic damages, statutes of limitation and repose, pretrial screening panels, certificate of merit requirements, limits on attorney’s fees, joint and several liability “fair share” rules, periodic payments, and collateral-source rules that reduce portions of the award already paid to the patient by another source. Overall, these reforms have reduced costs and defensive medicine practices to some extent in those states that have passed tort reform legislation, but the impact has been small and inconsistent.

Given the current state of affairs, the College’s Legislative Committee has determined that a new direction in liability reform is needed. Cost containment cannot be the only goal of this effort. Reforms also must focus on improving safety and developing a system of just response and compensation. As a thought leader in the field of surgery, the ACS strives to develop new options and alternatives beyond traditional tort reform. These
Several forces have converged to create this expensive, inefficient, and damaging system.

solutions should not only achieve financial goals, but also create a culture of transparency and accountability that ultimately improves safety and quality in surgical care in the U.S.

It is time for a culture change. We must work toward a system that encourages and supports a culture of safety. The punitive and inconsistent nature of the current liability system inhibits open reporting and discussion of errors at a system level. A culture of safety would encourage error reporting and investigation that recognizes that in many instances errors arise not simply from the actions of an individual, but from a failure of the system.¹⁸ A culture of safety should integrate existing hospital programs to ensure that all errors become an opportunity for system-wide improvements in quality and patient safety.

To achieve hospital-wide safety improvements, institutions’ risk management frameworks must be closely linked to their quality and safety improvement efforts. Risk management must be integrated into the quality improvement process to provide a feedback loop of improvement. Linking risk management and quality improvement is one step in improving communication across all levels of administration and patient care. Open communication and transparency about errors, near misses, and concerns are fundamental to identifying and correcting problems.

This communication also should include injured patients and their family members, who often want to ensure that these errors do not occur again.¹⁹ Involving these individuals in a transparent investigation process and sharing the resulting changes to prevent that error in the future can help assure patients that the hospital and clinicians are committed to patient safety.²⁰

**Formulating a vision**

For physicians and hospitals alike, delivering safe, high-quality patient care is the ultimate goal. We need a liability system that is integrated with the
For physicians and hospitals alike, delivering safe, high-quality patient care is the ultimate goal.

health care infrastructure to promote those ends. We need a system that focuses less on risk management and more on managing risk through the creation of a just culture of safety and quality improvement. We need a system that provides just compensation when patients are injured as a result of medical errors, and movement away from the “lawsuit lottery.”

We need a system that is efficient—a system in which the majority of the money is spent compensating the injured patient, and frivolous claims are dismissed early to avoid wasting resources. We need a system that compensates patients in a timely manner. Injured patients should not have to wait an average of five years to receive compensation.

Achieving an affordable, efficient, and effective liability system focused on patient safety, appropriate accountability, and health care quality will require more than tort reform.

It is for these reasons that the College’s Legislative Committee recognizes that the ACS needs to take the lead in creating a more equitable and patient-centered approach. To this end, the College convened the 2012 Medical Liability Reform Summit October 19, 2012, at the ACS Washington Office (see agenda in the sidebar on page 117). Participants in this program sought to develop and promote comprehensive solutions that will best serve our patients and the system in which we work. The following articles in this special edition of the Bulletin of the American College of Surgeons are drawn from the discussions that occurred at the meeting. The College’s leadership anticipates that the symposium and publication of these articles will stimulate further exploration and discussion of this important issue. 

REFERENCES

AHRQ program promotes patient safety and liability reform

by Margo M. Hoyler and John G. Meara, MD, DMD, FACS

HIGHLIGHTS

• This article summarizes the purposes and ongoing results of the Agency for Healthcare Research and Quality’s (AHRQ) Medical Liability Reform and Patient Safety Initiative.

• The $25 million initiative provides grants to health care organizations that have agreed to develop systems that promote patient safety and medical liability reform.

• Examples of how institutions are using the grants are provided.

<table>
<thead>
<tr>
<th>TABLE 1. GOALS OF MEDICAL LIABILITY REFORM AND PATIENT SAFETY INITIATIVE GRANTS³</th>
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<tbody>
<tr>
<td>Make patient safety first; reduce preventable injuries</td>
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<tr>
<td>Foster better doctor-patient communications</td>
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<tr>
<td>Ensure fair and timely compensation for injured patients</td>
</tr>
<tr>
<td>Reduce number of frivolous lawsuits</td>
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<td>Reduce liability premiums</td>
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Medical liability reform efforts traditionally have focused on lowering the cost and increasing the availability of liability insurance for physicians. Caps on awards have been viewed as the key means of addressing these problems. Over the past several years, however, new strategies have emerged for pursuing medical liability reform. These efforts center on improving patient safety and reducing the number of lawsuits against physicians. Patient safety is of the utmost importance, and research shows that increased patient safety is associated with lower rates of liability litigation.¹

In June 2009, President Barack Obama addressed the American Medical Association on the subject of liability reform. The President acknowledged the medical community’s concerns, saying that many physicians “feel like they are constantly looking over their shoulders for fear of lawsuits.”² President Obama also emphasized the importance of patient safety and of creating an environment in which health care professionals could focus on delivering high-quality care, rather than on practicing “defensive” medicine. The President reiterated this message in a September 2009 address to Congress during which he announced that the U.S. Department of Health and Human Services (HHS) would allot $25 million through the Agency for Healthcare Research and Quality (AHRQ) to an initiative promoting patient safety and medical liability reform.

AHRQ action

In preparation for the new endeavor to promote patient safety and medical liability reform, HHS and AHRQ consulted a broad range of experts and stakeholders, reviewed existing evidence, and invited interested parties to submit innovative
Patient safety is of the utmost importance, and research shows that increased patient safety is associated with lower rates of liability litigation.

Proposals. The result of these efforts was the launch of the Medical Liability Reform and Patient Safety Initiative. The goals of the initiative were to enhance patient safety, improve physician-patient communications, ensure fair and timely compensation to injured patients, reduce the number of frivolous lawsuits, and cut liability premiums (see Table 1, page 119).

Demonstration grants valued at up to $3 million over three years were announced for the “implementation and evaluation of evidence-based patient safety and medical liability demonstrations.” One-year planning grants of up to $300,000 were established to fund plans and provide technical assistance for an evidence-based safety and liability demonstration.

The AHRQ reviewed prior safety and liability efforts. Published in December 2009, this effectiveness review was intended to guide the initiative, inform applicants, and help the AHRQ evaluate grant proposals. Based on this analysis, the AHRQ concluded that there was a lack of evidence regarding the impact of liability reforms on patient safety and that the existing evidence suggested that medical errors tended to be infrequently and inaccurately reported.

Grants and results
In evaluating applicants for the grants, AHRQ focused on three “areas of promise”: preventing harm through best practices, improving provider-patient communication, and alternative dispute resolution.

<table>
<thead>
<tr>
<th>Area of promise</th>
<th>Recipient</th>
<th>Proposal</th>
</tr>
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<tbody>
<tr>
<td>Best practices and patient safety</td>
<td>Fairview Health Services, Minneapolis, MN</td>
<td>Establish perinatal best practices in 16 hospitals to assess the impact on patient safety and the level of malpractice activity</td>
</tr>
<tr>
<td></td>
<td>Ascension Health System, St. Louis, MO</td>
<td>Create uniform, evidence-based obstetrics practice model; expect that eliminating variation in obstetrical practice improves patient safety</td>
</tr>
<tr>
<td>Improved provider-patient communication</td>
<td>University of Illinois at Chicago</td>
<td>Build on Seven Pillars Program; expand existing disclosure program and evaluate impact on malpractice activity</td>
</tr>
<tr>
<td></td>
<td>University of Washington, Seattle</td>
<td>Develop statewide initiative involving communication training for health care workers; collaboration between hospitals and a malpractice insurer to improve adverse event analysis, disclosure, and compensation</td>
</tr>
<tr>
<td></td>
<td>University of Texas Health Science Center, Houston</td>
<td>Establish disclosure and compensation model; identify and disseminate best practices for disclosure to improve patient safety; focus on incorporating patient and family input into root cause analysis</td>
</tr>
<tr>
<td></td>
<td>Massachusetts State Department of Public Health, Boston</td>
<td>Engage clinicians, patients, malpractice insurers, and the state public health agency to ensure more timely resolution of medical errors</td>
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<tr>
<td></td>
<td></td>
<td>Identify key areas contributing to ambulatory medical errors and malpractice in a group of Massachusetts primary care practices</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Promote patient-centered communication</td>
</tr>
<tr>
<td>Alternative dispute resolution</td>
<td>New York State Unified Court System, New York</td>
<td>Protect obstetrical and/or surgery patients from injuries caused by providers’ mistakes</td>
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<tr>
<td></td>
<td></td>
<td>Reduce the cost of medical malpractice through an expanded and enhanced judge-directed negotiation program, coupled with a new hospital early disclosure and settlement model</td>
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<td>(See article on page 132, describing the New York State AHRQ project)</td>
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### TABLE 3.
**PLANNING GRANTS AWARDED (2010)**
**BY THE MEDICAL LIABILITY REFORM AND PATIENT SAFETY INITIATIVE**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Recipient</th>
<th>Initiative</th>
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</table>
| Safe harbors and evidence-based practice guidelines | Office for Oregon Health Policy and Research, Portland | Set priorities for evidence-based practice guidelines. Create safe harbor legislative proposal  
Conduct effectiveness analysis (if applicable)                                                                                                                                                                                                                                                                                                                                                                                                    |
| Shared decision making             | University of Washington, Seattle                                          | Develop shared decision-making tools and processes for orthopaedic surgery patients  
Empower patients through knowledge                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Quality of care monitoring         | Washington State University, Pullman                                       | Develop best practice medication risk-management systems that can be integrated into transitional care  
Maximize safety, quality, and cost-effectiveness while reducing medical liability  
Increase providers’ confidence and experience disclosing errors to patients |
|                                   | North Carolina State/Department HHS, Raleigh                               | Establish near-miss reporting and improvement tracking system in primary care  
Increase providers’ confidence and experience disclosing errors to patients |
|                                   | Johns Hopkins University, Baltimore, MD                                   | Monitor the quality of care at hospital discharge  
Identify safety concerns and notify leaders in real time |
|                                   | Multicare Health System, Tacoma, WA                                       | Plan for an integrated medical liability and patient safety program  
Identify avoidable patient safety problems  
Provide acknowledgement, apology, and standardized compensation  
Identify individual physicians and system components at disproportionate risk for unsafe care and possible lawsuits  
Reduce patient suicides  
Conduct surveys and focus groups to determine how medical liability can be restructured |
| Quality of care monitoring         | Sanford Research, Sioux Falls, SD                                         | Create infrastructure for a patient advocacy reporting system  
Collect information on patients’ and families’ concerns  
Recommend interventions to reduce maternal mortality and disparities |
|                                   | Multicare Health System, Tacoma, WA                                       | Create infrastructure for a patient advocacy reporting system  
Collect information on patients’ and families’ concerns  
Recommend interventions to reduce maternal mortality and disparities |
|                                   | Jackson Memorial Hospital, Miami, FL                                       | Establish statewide pregnancy-associated mortality review system  
Recommend interventions to reduce maternal mortality and disparities |
|                                   | Ohio State University, Columbus                                           | Establish statewide pregnancy-associated mortality review system  
Recommend interventions to reduce maternal mortality and disparities |
| Early disclosure and offers        | University of Utah, Salt Lake City                                        | Set policy and protocol for disclosure to patients and families |
|                                   | Beth Israel Deaconess Medical Center, Boston, MA                           | Develop disclosure-and-offer patient safety initiative in Massachusetts  
Create new medical liability system to improve trust, reduce fear, and improve patient safety |
| Improved communication following preventable injuries | Carilion Medical Center, Roanoke, VA                                      | Foster improved teamwork and communication among providers and with patients |
|                                   | Wishard Health Services, Indianapolis, IN                                 | Collect, analyze, and evaluate data regarding claims management model  
Promote open communication and identify risk-prone areas |

communication with patients, and promoting alternative methods of dispute resolution. Across these areas, the AHRQ awarded seven demonstration grants and 13 planning grants (see Table 2, page 120). The results of these initiatives have been very promising thus far, as the following examples illustrate. 

- Fairview Health Services in Minneapolis, MN, was awarded a demonstration grant to establish perinatal best practices across its 16 hospitals and to assess the impact on patient safety and liability activity. The program has resulted in a 74 percent reduction in preventable birth trauma to full-term newborns (preventing 30 cases over four years), 38 percent fewer preventable neonatal intensive care unit admissions of full-term babies, and a 12 percent reduction in preventable maternal complications (172 cases prevented over four years).
- Ascension Health system in St. Louis, MO, was awarded a grant to implement a “uniform, evidence-based obstetrics practice model,” with the expectation that eliminating variation in practice would enhance patient safety.
Liability lawsuits cause pain and suffering for all parties involved, and physicians often describe themselves as “forever changed” by the experience.

As of February 2012, no liability cases or notices of intent for shoulder dystocia had been filed. Ascension historically would have experienced at least three incidents over the 20-month period since the program was established in July 2010. In addition, rates of reporting breaches in patient safety increased three-fold in that interim, but the severity of reported cases decreased. Finally, fewer birth traumas occurred in the five hospitals included in the initiative.

• The University of Illinois, Chicago (UIC), was awarded a demonstration grant to expand its Seven Pillars Program and to evaluate its impact on liability activity. The initiative has yielded an 80 percent reduction in time to settle full disclosure cases, a 70 percent reduction in litigation-related costs, and UIC reports that no meritless suits were filed for at least 18 months. The initiative saved payors, including Medicare and Medicaid, an estimated $3 million annually since 2006. In all, 20 more hospitals have joined the initiative, even though they received no funding to do so. Furthermore, the initiative seems to have significantly slowed the practice of defensive medicine, reducing the rate of growth in clinical lab orders by 24 percent and radiology orders by 18 percent.

Current status and future directions
Currently, planning grants are near completion and demonstration grants are beginning their third and final year. Grants are on target to accomplish their aims. James Bell Associates, Inc. and the RAND Corporation intend to release a comprehensive evaluation of the initiative later this year. This report will assess the effects of interventions on patient safety, patient-provider communication, liability premiums, the timeliness and fairness of compensation, and the number of lawsuits filed.

Conclusion
These types of patient safety and liability reforms are so important. Poor clinical outcomes harm patients and physicians. Lawsuits cause pain and suffering for all parties involved, and physicians often describe themselves as “forever changed” by the experience. It is truly fair to say that when patient safety improves, everyone benefits: patients, clinicians, and the public.

REFERENCES
Patients and providers both want a health care system that ensures the delivery of safe, effective care. However, when errors, systems failures, or unanticipated outcomes occur, the existing process of resolving liability claims—that is, through litigation—may actively discourage discovery or even discussion of the root causes of these problems. The concept of alternative dispute resolution (ADR) has been introduced as an adjunct or alternative to traditional litigation. ADR includes a panoply of mechanisms designed to improve communication and reach resolution of disputes outside of the courtroom. ADR techniques may be implemented before, during, or after litigation.

The four categories of ADR—mediation, arbitration, negotiation, and collaborative law—differ in terms of the degree of privacy and level of autonomy they afford to the disputants. Furthermore, decisions derived through various methods of ADR differ in their binding nature. This article focuses on the form of ADR that has been applied most widely in medical liability lawsuits—mediation.

Shortcomings of current model

Traditional resolution mechanisms are inefficient. They are resource intensive, impede the flow of information between interested parties, and create an adversarial environment between physicians and patients. According to

HIGHLIGHTS

• This article focuses on mediation as a viable form of alternative dispute resolution (ADR) in medical liability cases.
• The problems with the existing system of litigating liability claims are addressed.
• Benefits of mediation, including greater patient and provider satisfaction, are discussed.
• Two models of mediation are presented.
• Roadblocks to implementation of ADR are described.
According to one study, the length of time required to resolve legal claims was twice as great for litigated versus non-litigated claims. Although most court decisions ultimately favored the physician, that resolution came only after months or even years of litigation.\(^1\)

Traditional litigation tends to lock parties into positions that they then feel forced to defend. Intractable positions destroy communication regarding the relevant issues. Arguments over “who” is right rather than “what” is right further damage the physician-patient relationship and provide little benefit to either party.\(^1\)

Being sued can have a significant impact on physicians and their families. Lost productivity, anxiety, diminished professional reputation, financial costs, and increases in liability and malpractice insurance are some of the hardships defendants typically experience in these situations.\(^1\)

These stressors could be reduced if the process of resolving claims were swifter and encouraged greater transparency. In the aftermath of an adverse event, patients and their families often are confused and angry. Few are immediately inimical. Most want basic information about the event, an understanding of how it occurred and how it might be prevented in the future, and an apology that reflects recognition of their loss.\(^2,3\) Physicians are given little training and few tools to engage in such conversations. Instead, health care practitioners have been counseled that open disclosure can lead to litigation. Those who try to communicate may say too much too early. They may ultimately be punished for their collaboration with and concessions or apologies to the opposing party, as these actions are all perceived to be an acceptance of personal responsibility for negative outcomes. When these barriers to open communication arise, litigation may seem like the only recourse.\(^4\)

However, the stifling of communication that occurs due to fear of litigation ultimately has a detrimental effect on patient safety. Up to one-quarter of physicians reported having seen an error in the previous year. Among them, 60 percent believed that a similar error was very or somewhat likely to occur at the same institution during the next year.\(^5\) This lack of communication often leads to stagnation in patient safety improvements.

### Projected benefits of ADR

It is in this context of disjointed communication that mediation and other forms of ADR may provide the most benefit. Mediation augments direct communication between parties by introducing a neutral third party, a mediator, who facilitates negotiations. The mediation process addresses barriers to communication by encouraging information sharing, mitigating high emotions, promoting collaboration, and fostering trust between parties.\(^5\) Patients often favor mediation because it provides an opportunity to share their feelings and concerns and obtain relevant information.\(^5\) Physicians also appreciate the opportunity to draw the distinction between bad medicine and bad outcomes and to express their frustrations with being sued.\(^6\) By improving communication, the enhanced relationship between patient and provider may help both parties potentially avoid or minimize the impact of lawsuits.\(^7\)

Mediators do not dictate an outcome; rather, they help both parties understand their motivations and elucidate the events and influences leading up to the incident. They help parties develop and evaluate new options for resolving the issues at hand, tailoring the solution to the specific needs of both parties, and broadening the possible outcomes beyond the linear constraints of the litigation process. The findings uncovered through mediation are non-binding unless parties reach an agreement. Satisfaction among plaintiffs and defendants in mediated cases is approximately 90 percent.\(^8\)

Once an event is disclosed and mediated, a more open discussion may follow that allows health care providers to learn from and reduce future medical errors. The changes that occur as a result of these experiences can ultimately improve patient safety.

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\(^1\) According to one study, the length of time required to resolve legal claims was twice as great for litigated versus non-litigated claims. Although most court decisions ultimately favored the physician, that resolution came only after months or even years of litigation.

\(^2\) Physicians are given little training and few tools to engage in such conversations.

\(^3\) Those who try to communicate may say too much too early.

\(^4\) Physicians are given little training and few tools to engage in such conversations.

\(^5\) Physicians also appreciate the opportunity to draw the distinction between bad medicine and bad outcomes.

\(^6\) By improving communication, the enhanced relationship between patient and provider may help both parties potentially avoid or minimize the impact of lawsuits.

\(^7\) Mediators do not dictate an outcome; rather, they help both parties understand their motivations and elucidate the events and influences leading up to the incident.

\(^8\) Satisfaction among plaintiffs and defendants in mediated cases is approximately 90 percent.
Models for mediation
In 1995, Rush Medical Center in Chicago, IL, developed a prototype for ADR in response to the rapid growth in legal costs and unpredictable rising jury awards in malpractice cases. The Rush model features a mediation agreement, mediation conferences, and, most notably, co-mediators, including a lawyer who traditionally would represent a plaintiff in a medical liability case and a lawyer who would traditionally defend these cases.9,10

In the first five years of the program, 55 cases spanning errors in medication, diagnosis, and treatment were mediated. More than 80 percent of the cases that underwent mediation were resolved within one year of the lawsuit being filed and within three to four hours of starting mediation.10,11 The mediated cases were resolved in half of the time in which non-mediated cases in Cook County were settled or came before a jury.11 Though payouts were lower, patients were willing to accept the awards because they were received quickly.10

Another model, the Pew Demonstration Mediation and ADR Project prototype, was implemented in four Pennsylvania hospitals in 2002, including a large, decentralized network of urban teaching and suburban hospitals with more than 2,500 staffed beds and a suburban community teaching hospital with approximately 500 beds. This model focused on equipping physicians with mediation skills by encouraging physicians to learn communication skills for disclosure conversations; providing experts to help plan, conduct, and debrief disclosure conversations; and using mediation to settle potential claims.2 Mediation settlements included provisions that met patient and family needs, such as ensuring that policies or procedures were changed to prevent similar errors or adverse events from occurring again. The parties were encouraged to explore both monetary and non-monetary solutions, whereas court proceedings typically result only in judgments.12 Although only two cases were mediated in this demonstration project, it successfully showed that the apology and change in practices to avert future errors were the most important elements of the settlements.

Current role of ADR and future implications
ADR has been demonstrated to have a positive impact on physician-patient relationships, improve the efficiency of settlement proceedings, reduce the costs of resolving claims, enhance the confidentiality of proceedings, and encourage improvements in patient safety. Despite these benefits, multiple unresolved issues and challenges to implementation remain. ADR payments made on behalf of physicians must be reported to the U.S. Department of Health & Human Services' National Practitioner Data Bank (NPDB). This mandate increases physicians' willingness to go through the traditional legal process, which tends to favor the physician defendant.5 Hence, the impact of reporting must be weighed against the benefits of ADR and revisions to the NPDB requirements should be considered.

Some discomfort exists surrounding the introduction of mediators to the conversation. Mediators do not have the same authority as judges and cannot compel the release of information or impose the results of the decision, thus necessitating the full compliance of both parties.5 Mediators may find it difficult to navigate conversations on complex medical and health systems issues; however, with the advent of specialized mediators, this problem may become less of an issue. In fact, this mechanism may be superior to the current system that relies on lay jury members to come to a consensus on these complex issues.
The mediation process addresses barriers to communication by encouraging information sharing, mitigating high emotions, promoting collaboration, and fostering trust between parties.

Some courts, for example those in North Carolina, now require “compulsory mediation” before any case can be tried. This policy maintains that mediation is an adjunct to, not a replacement for, litigation. However, this model of mandatory mediation has been demonstrated to be less effective than voluntary mediation, with rates of success measuring 23.7 percent and 90 percent, respectively. This discrepancy likely reflects the fact that the greatest strength of mediation and ADR in general is its flexibility in meeting the unique needs of each case. Different systems have pioneered various forms of mediation, for example, by court mandate or by employee or department head training in conflict management. The success in implementation of these programs remains to be seen.

An understanding of ADR in comparison with traditional litigation methods will enable physicians to choose the most appropriate mechanism of resolving for each situation. This understanding of the processes of ADR will empower physicians to better communicate in difficult situations and improve their strategies for resolving malpractice allegations.

Acknowledgment

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REFERENCES

Medical liability litigation is a powerful force in the U.S. health care community. The mere possibility of being sued may affect clinical decision making, strain physician-patient relationships, and shape the professional experiences and attitudes of physicians. When they occur, liability lawsuits can be a financially and emotionally devastating experience. As a result, hospitals across the country rely on professional risk managers to reduce their legal liability. Given the short-term financial exposures associated with liability claims, risk management—historically expected to “circle the wagons”—has often been perceived as a financial necessity first and foremost.

However, the concept of risk management is evolving. The core challenge to medical risk management is not litigation but harm to patients. Patient safety is, and must be, the central goal of any risk management program. To illustrate this point, this article looks at the early disclosure and offer (D&O) program at the University of Michigan Health System (UMHS), Ann Arbor, which has shown promising results since its implementation 10 years ago.

Reduced medical liability is indeed a desired outcome of the D&O program, but the best risk management is reduced...
This program demonstrates that the D&O approach cuts the costs associated with liability claims by creating the safest possible environment for patients.

patient injuries. This program demonstrates that the D&O approach cuts the costs associated with liability claims by creating the safest possible environment for patients.

Restoring accountability
In late 2001 and early 2002, UMHS changed the way the health system responded to patient injuries, applying what has become known as the Michigan Model and has since been described as an early disclosure and offer program. The UMHS’ approach was designed to promote patient safety through the principles of honesty, transparency, and accountability.1 In 2004, UMHS announced its goal of becoming the safest hospital system in the nation.2

The program was informed by two central observations: (1) honesty is indispensable for safety improvement, and (2) a short-term focus on financial risk impedes long-term improvement. The tenets of the D&O system include compensating patients quickly and fairly when inappropriate medical care causes injury, communicating openly with patients about error(s), supporting staff vigorously when appropriate care has been provided, and reducing future injuries and claims through application of knowledge garnered through the discovery process. The system emphasizes UMHS’ commitment to patient safety, as well as its accountability to patients and to clinicians who provide high-quality care.

Recognizing that problems can only be addressed if they are known, the UMHS’ D&O system uses multiple strategies to capture unintended clinical outcomes. UMHS promptly investigates patient complaints. At all stages of the investigation, UMHS prioritizes open communication with patients, and representatives offer to meet with patients, families, and legal counsel to obtain their views, discuss the complaint, and explain the progress of the investigation. These meetings provide an important opportunity to help manage patients’ expectations regarding continuing clinical needs and dispute resolution. When the investigation is complete, UMHS communicates its full findings to patients and promptly offers compensation when it determines that inappropriate care led to an injury.

A UMHS internal committee assesses errors in patient care after thorough investigation and review. This approach, as opposed to reliance on outside “experts,” promotes a sense of ownership among UMHS care providers. It also reduces physicians’ anxiety over whether their clinical reasoning and decision making will be undervalued and lessens their feelings of victimization at the hands of a broken and unfair litigation system. Most importantly, a careful internal assessment of clinical events dramatically increases the chance that safety problems will be fixed going forward.

Departure from deny and defend
UMHS’ D&O program represents a radical departure from the traditional “deny and defend” paradigm. Under that model, the health care community categorically rejects fault for adverse events and outcomes, and complex medical and emotional issues are systematically “turfed” to lawyers. Consequently, the physician-patient relationship inevitably becomes adversarial. Attorneys on both sides, focused on winning the case that might ensue, advise stonewalling the patient instead of discussing the case openly and honestly. Patients are kept in the dark about clinical decisions and events related to their care and often describe feeling abandoned. As misunderstandings and resentments solidify, patients increasingly turn to lawyers who, in turn, recommend litigation, regardless of the merits of the case.3

Although physicians are well-aware of the financial and emotional impact of litigation, deny and defend only increases these burdens.4,5 Deny and defend exacerbates several factors that drive patients to seek legal counsel. For instance, patients often contact lawyers in search of answers, but the threat of legal involvement has a chilling effect on communication between patients and clinicians because they are now perceived as being in opposition to one another. Similarly, patients who have suffered an adverse event have a natural desire for justice and accountability. When the medical community denies and defends, lawsuits become the only constructive recourse.

Furthermore, the fact that patients feel compelled to protect others from the same adverse clinical outcome has been grossly underappreciated. Several studies on why patients sue their caregivers cite this sense of obligation to fellow patients as a strong motivat-
Deny and defend undermines this driving force because it rejects the notion that the outcome was preventable. Instead, it commits physicians and their attorneys to justifying the care provided, even if it was substandard. For all members of the health care community, deny and defend provides a disincentive for investigating clinical events and decisions for fear that such scrutiny would reveal compensable error.

Finally, and most powerfully, deny and defend serves neither the individual nor the common good. By systematically justifying substandard care, this approach is both an obstacle and a threat to patient safety. It undermines accountability, actively ignores dangerous individuals and patterns in the health care system, and disregards the ongoing risks that they present to patients.

Two sides of the coin

The impression that medical liability suits are an inevitable cost of doing business can render settlement an appealing option for defendants, even when no medical error has been committed. However, for individual physicians, this pattern can be painful and demoralizing, and for health care systems, it is an extremely costly strategy. It leaves caregivers dispirited and less likely to make evidence-based clinical decisions and may encourage patients and attorneys to pursue meritless lawsuits risk-free.

If UMHS concludes that a patient was injured due to inappropriate care, its policy is to offer patients a prompt apology and fair compensation. Conversely, if UMHS finds that the adverse outcome was not a result of inadequate care, it generally refuses to settle, regardless of expediency. In this situation, open communication with patients takes on additional value as a means of informing potential plaintiffs and their attorneys that they do not have a meritorious legal case and the reasons for that conclusion. Furthermore, it is important that UMHS providers see the clear and robust connection between quality of care and risk management; settling non-meritorious claims would undermine this correlation. Ironically, UMHS officials agree that refusing to settle such claims has been one of the most difficult components of the model to implement. It is costly to refute frivolous accusations in court, and it is often less expensive to appease plaintiffs with a settlement payment. However, the UMHS views court cases in which they defend reasonable care as an investment in the integrity of their institution and the D&O program, and as an important demonstration of UMHS’ commitment to safe, high-quality care.

Results of the program

UMHS’ D&O model has successfully resulted in fewer claims, fewer lawsuits, and lower liability costs. Kachalia and colleagues found that the rate of new claims at UMHS has decreased from approximately seven per 100,000 patients to fewer than five. The rate of lawsuits has declined from 2.13 suits per 100,000 patients per month, to roughly 0.75. The median time from claim to resolution has dropped from 1.36 to 0.95 years. Cost rates due to total liability, patient compensation, and legal fees have decreased as well. Because UMHS generally refuses to settle what appear to be non-meritorious claims, patient compensation is now a direct indicator of substandard care in UMHS and a powerful motivator for increased safety and adherence to standards of care.

Anecdotal evidence suggests that the D&O program has helped UMHS retain patients, even after they were harmed because of a medical error or mistake. In that respect, the institution’s response to the adverse event seems not to undermine patient trust in the medical system but to actually help restore it. Anecdotal evidence also suggests that the program has had a positive effect on clinician morale. Health care professionals find reassurance and validation in UMHS’ staunch defense of high-quality care and have reason to believe and expect that their work will be recognized and honored by their
institution. Finally, the D&O program has contributed to a culture of patient safety at UMHS. The institution’s scores on the biannual safety attitudes questionnaire have improved steadily since 2006.1

Well-received program
The UMHS model has been generally well-received in Michigan and elsewhere. In Michigan, the plaintiffs’ bar has embraced the model, in part because they do not benefit from pursuing groundless litigation. In contrast, the defense bar consistently views it in a negative light, possibly because early resolution negatively affects their practice. Nationally, the model has been covered by major newspapers and newsmagazines and was cited by then-Sens. Barack Obama (D-IL) and Hillary Clinton (D-NY) in a 2006 editorial on health care reform.10,11

Although the UMHS D&O program is novel in its focus on patient safety improvement, the model was not without precedent. The Department of Veterans Affairs (VA) initiated a D&O program in Lexington, KY, in 1987.12,13 The model spread to several private institutions and VA hospitals, but was not adopted by the VA system overall. Primarily an early resolution model, the VA’s program was not linked to patient safety improvement.

Traditionally, many health systems and insurance carriers have engaged in “service recovery,” a practice in which risk managers spot potential claims early and intervene with modest payments as a means of intercepting litigation. In Colorado, for instance, the liability insurance provider COPIC established a compensation model in which patients could be reimbursed up to $5,000 for lost time and $25,000 for out-of-pocket expenses related to their adverse outcome or event.12

The program was very limited, however. Patients who had legal counsel were excluded. Payments were made largely for out-of-pocket costs, not as compensation for injuries. By design, no admissions or apologies were attempted. Generally under the compensation-only model patients who accept the payout retain the right to sue. Severe or fatal injuries, and adverse outcomes clearly due to medical error, are exempt from this process. Notably, compensation models do not involve investigations into possible provider error, and no connection is drawn between injury and patient safety efforts.

Patient safety through D&O
In terms of patient safety, early and open communication with patients is not simply the right thing to do—it is also the smart thing to do. Most health systems view liability costs as simply a cost of doing business, and not a legitimate indication of the quality of their care. By significantly reducing spurious lawsuits, the UMHS D&O program provided the institution with an additional metric with which to measure the quality of care it delivers regularly. Data pertaining to settlements and court cases are now seen as robust indicators of what UMHS is doing well, and where and how it continues to put patients at risk.

In other words, D&O helps the institution isolate problematic or dangerous processes and health care professionals. The model forces the host institution to confront unpleasant and often tragic realities and determine its own accountability for them. In offering early disclosure to patients, UMHS must first admit mistakes to itself. It follows, too, that patient safety will always be at risk if UMHS and the health care system overall are unwilling to remove the individuals who provide substandard care. UMHS’ awareness of the weaknesses of systems and staff can and must be leveraged to shape improvements, reduce risk, and protect patients. Having taken stock in an accountable way, the D&O approach stimulates honest, evidence-based peer review and forward-thinking approaches to improvements in patient communication and engagement.

In addition, the systematic and thorough investigation of patient complaints—not simply patient claims—is a powerful means of uncovering opportunities to improve patient safety. At UMHS, patient complaints and the peer review process are used to inform educational initiatives for clinicians and to direct other quality improvement efforts.

The physician’s role
Several points pertaining to clinician responsibilities in the D&O program warrant mention. Of note, UMHS discourages physicians from disclosing errors to pa-
By significantly reducing spurious lawsuits, the UMHS D&O program provided the institution with an additional metric with which to measure the quality of care it delivers regularly.

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Conclusion

The UMHS’ disclosure and offer program is a compelling demonstration of the power of honesty, transparency, and accountability as pillars of medical liability management, serving the dual goals of improving patient safety and ameliorating the costs of avoidable medical mistakes. The program makes every effort to put patients and their safety first and, in that way, fulfills its commitment to serving and protecting physicians, providers, and health systems.
New York State shows benefits of CRP demonstration project

by Susan Senecal; Margo M. Hoyler; and Janet Cohn, JD

As other authors in this special edition of the Bulletin of the American College of Surgeons have noted, medical liability lawsuits are financially and emotionally costly. In these respects and more, they harm patients, providers, and the medical and legal systems. The pervasive tropes of “bad apple” physicians, greedy lawyers, and exploited patients do little to promote patient well-being and patient-provider trust. Nonetheless, achieving medical liability reform has proved difficult in New York and elsewhere. New York State has responded to these challenges in part through an Agency for Healthcare Research and Quality (AHRQ)-funded Patient Safety and Medical Liability Reform Demonstration Project. This article describes the processes and systems created to meet its objectives.

The AHRQ request for applications

Already looking for creative alternatives to New York’s medical liability system, a small interdisciplinary state team responded with interest to AHRQ’s request for applications to participate in the 2009 Medical Liability Reform/Patient Safety demonstration project. The AHRQ initiative offered funding to states and/or hospital systems for programs that would promote patient safety, improve patient-provider communication, ensure fair and prompt settlements for injured patients, and reduce the incidence of frivolous lawsuits and liability premiums. Although many reform efforts were under way, AHRQ’s emphasis on improving patient safety added a critical challenge.

New York State project

To meet the wide-ranging requirements of the AHRQ initiative, the New York team expanded to include additional representatives from the Department of Health and the Unified Court System, as well as five major academic medical centers in New York City. It also recruited Michelle Mello, JD, PhD, a public health researcher who would evaluate components of the project, and Richard Boothman, JD, a pioneer in disclosure and offer programs.

A central component of the project was a communication and resolution program (CRP), to be piloted in the departments of general surgery of the five participating hospitals. Its goals were to reduce preventable harm to patients and, when harm nevertheless occurred, to resolve disputes while preserving the physician-patient relationship. The New York State proposal also included an expansion of a pre-existing judicial program for disputes that resulted in lawsuits. The proposal was successful. In 2010, AHRQ awarded
In 2010, AHRQ awarded New York State a $3 million demonstration grant to fund the pilot program for three years. The program is currently in its third and final year.

**Focus on patient safety**
In keeping with the AHRQ guidelines, the New York State project focused on patient safety. The work plan identified three areas of emphasis: development of a culture of safety, enhanced adverse event reporting, and implementation of patient safety activities.

Participating institutions were responsible for assessing their safety culture by administering AHRQ’s Hospital Survey of Patient Safety Culture to general surgery department staff. Hospitals were required to identify opportunities for improvement and design initiatives to address them. The survey will be re-administered in the final months of the project.

Building upon improvements in the culture of safety, participating institutions were encouraged to enhance their systems of tracking and responding to adverse events. Hospitals expanded adverse event data sources beyond traditional clinical reporting. Known complications were included for further evaluation, with a focus on the patient’s perspective on the event.

Hospitals were expected to adopt appropriate safety measures and incorporate current initiatives into the project scope. These included the use of surgical safety checklists and “zones of silence” to reduce distraction and error. In addition, the development of an obese surgical patient practice guideline and better preoperative assessments, among other initiatives, were identified to help reduce preventable harm.

**CRP elements and processes**
The CRP established personnel and protocol for the identification, reporting, and resolution of study events. A CRP study event was defined as an adverse event that did or could result in serious harm to a patient while in the care of the perioperative unit. Level of harm is
assessed using the AHRQ scale. Study events are reported to the “hospital designee,” who notifies other hospital staff and oversees the process. Responding to the patients’ immediate needs is the first priority.

An investigation is conducted promptly and the findings are presented to a review committee, which recommends systems improvements and determines the appropriate resolution. If monetary compensation is to be offered, an early settlement subcommittee is convened. Representatives of the review committee and the early settlement subcommittee meet with patients and families to explain the findings of the investigation and, if appropriate, to offer an apology and to discuss resolution, as well as measures to prevent recurrences. At all stages of the CRP process, the emphasis is on consistent communication with the patient and family. To facilitate CRP implementation, general surgery department staff participated in a customized training program to improve post-event communication with patients.

**Judge-directed negotiation**

The New York State Patient Safety and Medical Liability Reform program included an expansion of a program that had been piloted by the New York State Unified Court System for cases filed against New York City public hospitals. The judge-directed negotiation program was intended to handle those cases that the CRP did not resolve, as well as pre-existing cases. The project team developed a new “medicine for judges” curriculum, including lectures on medical records, anatomy, specific medical injuries, settlement techniques, and legal issues related to medical liability litigation. A total of 60 judges attended a three-day training course. The materials and presentations were subsequently made available online to all New York State judges.

Under the program, all lawsuits against one of the five participating hospitals are assigned to trained judges who retain the cases for their duration or until a plaintiff opts out. The plaintiff may request a jury trial at any point. An RN/JD provides clinical assistance to the judges. The parties meet in the judge’s chambers instead of a courtroom, and they are required to appear fully prepared and with authority to settle. Case conferences are frequent and focused on the prompt achievement of a fair settlement.

The judge-directed negotiation program, which has since expanded to Erie County, has been met with enthusiasm from both the plaintiff and defense bars. Significantly, the program has provided confidence to hospitals in a high-risk liability climate like New York’s to participate in the CRP.

**Next steps**

A formal evaluation of the CRP and judge-directed negotiation programs is forthcoming and will be performed by Ms. Mello and colleagues at the Harvard School of Public Health, Boston, MA. Meanwhile, data from the hospital sites and the court system are being gathered.

The experience of developing and implementing the program has underscored the interconnectedness of diverse approaches to medical liability reform. Above all, patient safety is at the heart of the matter: it must be the chief driver for all stakeholders, including providers, public health officials, hospital administrators, attorneys, and the judiciary. As AHRQ foresaw in creating this initiative, putting patient safety first can promote liability reform. ◆

**Author’s note**

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america’s medical liability system is broken. It incurs high administrative costs, does little to improve the care that patients receive, and compels health care providers to waste billions of dollars on unnecessary tests and procedures. Special health courts would address these shortcomings by compensating injured patients more efficiently and equitably and by distinguishing good care from bad so that physicians can act on their best judgment—rather than fear of a lawsuit. These courts would go a long way toward reducing defensive medicine and fostering the openness that’s necessary to improve the quality and safety of medical care.

Improving accountability
A goal of any tort system should be to create reliable accountability. In a well-functioning medical liability system, lawsuits would discourage substandard care and ensure that patients who are injured due to medical errors receive fair compensation. Rulings need to be tied to actual error and similar cases must be decided in a similar manner. The current jury system is ad hoc, producing rulings that are inconsistent, including unjust rulings against physicians in cases where errors did not occur as well as failures to compensate patients who were injured by errors.

Because physicians cannot predict when they will be exposed to an erroneous claim, they engage in the costly practice of defensive medicine. In this climate, physicians and hospitals also fear admitting errors or suspected errors—whether their own or those of others. As a result, many problems go uninvestigated, and opportunities to improve the quality and safety of medical care are lost. By bringing reliability to medical justice—and lessening the current demoralizing nature of the modern tort trial—health courts would address this culture of secrecy by promoting and justifying candor among health care providers.

Addressing existing problems
Under a health court system, trained, specialized judges would hear and rule on liability claims and would issue written rulings that would serve as precedent in future cases. And, as is the case in other administrative systems, such as tax courts and workers’ compensation tribunals, there would be no juries. Furthermore, instead of relying on expert witnesses hired by plaintiffs or defendants, health courts would employ neutral medical experts to evaluate claims and testify on proper standards of care.

The expedited proceedings and improved efficiency under a health court system would reduce the amount of time an injured patient waits to receive compensation, which currently averages three to five years. Health courts would also establish a schedule for payment of noneconomic damages to introduce consistency and fairness to the compensation system.

Some health court advocates argue for changing the standard in liability claims from one of negligence to “avoidability,” thereby shifting the focus of error analysis from the individual to the system in which the individual works. Others argue that the benefits of a health court system would still exist under a negligence standard. Either standard would markedly improve both the fairness and the reliability of the medical liability system.
The current liability system creates a situation in which compensation does not align well with the absence or presence of medical error. A 2006 study by Studdert and colleagues asked medical experts to review 1,452 closed claims. They found that in 28 percent of the cases in which no medical error occurred, the plaintiff received payment. Conversely, in 27 percent of cases where the experts judged that an error had occurred, injured patients received no payment. Data suggest that fewer than 5 percent of patients with serious injury from medical error ever file a claim. Furthermore, the current system is very inefficient. For every dollar paid into the liability system, 54 cents goes to legal fees and administrative costs.

Under the current system, jury decisions are non-binding, so two juries presented with the same set of facts might rule differently. “The civil jury,” as Yale University law professor George Priest asserts, “is an engine of inconsistency.” Juries also never issue a written ruling that explains their decision. The written rulings that health court judges would issue would set a legal precedent for determining whether acceptable care has been provided.

Improving quality
Reforming the liability system to include special health courts will improve the quality of health care while decreasing the costs associated with defensive medicine. In fact, error reporting could be supported explicitly with special health courts, with penalties enforced on hospitals and physicians that fail to disclose errors.

Defensive medicine is estimated to cost the U.S. health care system from $45 billion to more than $200 billion a year, and the practice is widespread. A 2005 study in the *Journal of the American Medical Association* revealed that 93 percent of Pennsylvania specialists admitted to practicing defensive medicine. By bringing reliability to medical justice, physicians will feel comfortable making decisions based on medical need and not legal fear, thus reducing the cost of defensive medicine and America’s health care tab as a whole.

Success stories
Other countries and some U.S. states have adopted administrative solutions to medical injuries with great success. In New Zealand, the Accident Compensation Corporation (ACC), which was established in the 1970s, covers all injuries caused by medical treatment. Compensation covers lost earnings and rehabilitation costs, as well as a one-time payment to claimants for miscellaneous expenses. This system has helped to maintain total administrative costs to about 10 percent. The ACC processes approximately 3,000 claims annually, which suggests that even in a system with easy reporting, not all injured patients are filing claims.

Sweden also has adopted an administrative system for compensating patients who experience medical injuries. Injured patients in Sweden submit their claims for review by an impartial expert. Between 40 and 45 percent of the claims in the system are reimbursed—and in up to 80 percent of claims, physicians actually help patients file for reimbursement.

In the U.S., Florida and Virginia have developed administrative systems to address claims for birth trauma. Although both programs have limitations, they have demonstrated that non-tort based compensation plans for medical injuries are feasible and can decrease the cost for physicians in high-risk specialties like obstetrics.

Success with administrative solutions to malpractice in these locales and growing recognition of the problems with our current medical liability system have led to increased support for health courts. Political supporters include President Barack Obama, former Massachusetts Gov. Mitt Romney, and New York City Mayor Michael Bloomberg. In addition, four 2011 deficit reduction commissions and several federal and state bills have called for establishing health courts. Professional societies, including the American Medical Association and the America College of Obstetricians and Gynecologists, support piloting this reform. The American public also supports health courts, with 66 percent of respondents in a recent poll favoring their creation to adjudicate medical liability claims. The only group in opposition is the trial bar, which benefits from the ad hoc nature and inequity of the current system.

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Other countries and some U.S. states have adopted administrative solutions to medical injuries with great success.

**Strongest solution**

Health courts are preferable to other proposed medical liability reforms because they would successfully and reliably separate good care from bad and address the totality of flaws in the current system. Caps on damages would limit the costs of claims but would do nothing to protect a physician who acted appropriately. Early disclosure and offer programs improve transparency and address the issue of delayed compensation but do not enhance reliability. Safe harbor proposals fail to address who decides whether standards were followed. Would it fall to the same inconsistent juries under the current system? Additionally, it is impossible to establish evidence-based guidelines for every case or even most cases in health care. Physicians would continue to care for patients for whom no guidelines exist and the current culture of legal fear—the cause of defensive medicine—would persist.

Health courts, on the other hand, are the best solution to the failures of the current system because they address the issues of reliability and consistency in rulings, costs associated with defensive medicine, fair and efficient compensation for injured patients, patient safety, and physician accountability.  

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Proponents of health courts say that they will address several problems with the current medical liability system, including uncertainty in judgments, an unpredictable compensation structure, and minimal emphasis on quality and safety improvements. Health courts, however, are ill-conceived and will inadequately address the issues of concern to their proponents. Furthermore, health courts will likely reduce the rights of injured patients; will create a new, costly, unnecessary administrative system; and will not improve the safety or quality of health care delivery.

Unjust system
Health courts most likely would deny justice to injured patients by diminishing the rights that they are afforded under the current civil justice system, including the right to a jury trial, the right to legal representation, and the right to seek remuneration for injuries.

Health courts would employ specialist judges to adjudicate the injury claims, which would limit patients’ access to a jury trial. Health courts would require all patients seeking compensation for injury due to medical error to participate in the new system. This would further deny access to a jury trial by limiting patients’ ability to seek redress through the traditional tort system. Health courts would limit patients’ access to legal representation as well. Because the health court proposals encourage hospitals to make early disclosures of errors and early settlements with patients, health courts may encourage hospitals to dissuade patients from seeking legal counsel before accepting an offer.

Proponents support limiting access to legal representation as a way to further reduce the administrative costs of the liability system. This constraint would create greater inequity for patients in that physicians, hospitals, and insurance companies will have legal representation, while those injured through medical error or negligence would not. To further limit administrative costs, health courts would set a minimum claim or deductible for compensation. This policy would prevent patients who require less compensation from seeking any recourse. Together these changes would limit the rights of injured patients to seek a remedy after they have been injured.

Proponents of health courts argue that these significant and costly changes are necessary to address the errors that judges and juries have made in deciding liability lawsuits under the current system. They also argue that the unpredictability of the rulings in the current system leads to frivolous lawsuits and inappropriately large judgments against physicians. However, the data do not support this claim.

A study by Studdert and colleagues found that most cases were resolved correctly. In a random sample of 1,452 closed claims, they found that in cases where medical errors occurred, 73 percent of the patients were awarded compensation. Conversely, in only 10 percent of the total claims did a plaintiff receive compensation when their medical experts determined that no error occurred. Furthermore, cases in which no injury occurred were compensated less than 1 percent of the time. In 16 percent of the claims, juries erroneously sided with physicians, offering no reward to patients who were injured by medical errors. In addition, the American Medical Association reported 2005 data from the Physician Insurers Association of America indicating that defendants won 83 percent of the liability cases that went to trial. They also noted that more
Health courts most likely would deny justice to injured patients by diminishing the rights that they are afforded under the current civil justice system, including the right to a jury trial, the right to legal representation, and the right to seek remuneration for injuries.

than 75 percent of cases were resolved without payment to the plaintiff. These findings indicate that the current jury system does not unfairly favor patients or frequently award large, inappropriate judgments. In fact, the numbers suggest that the current system favors physician-defendants.

The reality of the current system is that most claims are not actually decided by juries. In a study of 26,297 claims in Florida between 1990 and 2008, Holman and colleagues found that 94 percent of paid claims either settled before trial or during a trial but before a verdict. Studdert found that only 15 percent of the 1,452 claims that they reviewed were decided by jury verdict. So, eliminating patients’ right to trial by jury probably will have little impact on the majority of cases.

**Costs**
Proponents of health courts argue that they are necessary to address high costs in the tort system that arise both from excessive jury verdicts and high administrative costs. Proponents advocate controlling costs by adopting a schedule of awards for different types of injuries. A physician panel would develop the schedule or list of accelerated compensation events. A schedule of awards, however, would deny individual patients the right to compensation based on the facts of their individual case. Award limits also deny individual patients just compensation. As noted previously, claims and rewards of injuries not caused by error comprise only a small part of the liability system. Even eliminating all of these claims would not have a significant effect on the costs of liability. In their review, Studdert and colleagues found that only 12 to 16 percent of the costs of all the claims could be attributed to cases without merit. Based on these findings, the majority of the costs incurred are to adjudicate claims of injured patients.

**Negligible quality improvement**
Advocates argue that health courts will improve the safety and quality of medical care. They argue that changing the standard of injury in liability claims from “negligence” to “avoidable” would create a climate that encourages disclosure of errors, increases the number of patients who are reimbursed, and supports quality improvement programs. However, the “avoidability” standard is ill-defined. The standard that health courts are to apply varies among proponents, including the Progressive Policy Institute, the Republican Policy Committee, and Common Good, a nonpartisan reform coalition. These different groups advocate standards ranging from a failure to deliver good care to negligence. Most descriptions, however, differ little from the current standards of negligence. Health courts are unlikely to alter the factors that discourage physicians and hospitals from disclosing errors under the current system.

Health courts rely on disclosure of injury to patients without providing safeguards to increase disclosure. Nothing in the health court proposals guarantees that physicians will report errors more frequently. Physicians who report errors will still be subject to the same public shame they experience in the current system, as well as possible repercussions from their hospitals. Hospitals would also have a disincentive to report errors because their insurance costs, which are based on claims data, would rise. While supporters of health courts argue that fines that are imposed for late reporting of errors will prevent this problem, it is unlikely that
fines will be imposed because patients will be unaware of errors that are not disclosed by providers, and there is no oversight or enforcement of the self-reporting. Thus, health courts are unlikely to result in increased voluntary disclosure of injuries to support an investigatory process and quality improvement.

One difference between jury trials and the procedures recommended under the health court proposal is the creation of a written decision. No legal precedent is set in a jury trial, and health court proponents argue that by creating written legal precedents and maintaining them in a searchable database, standards of medical care deliver will be codified. They argue that this will, in turn, lead to improved outcomes. However, a written decision for one case may have limited application to other cases in which the facts and unique medical history of the patient differ. As health care becomes more patient-centered, appropriate standards from one case may not apply to another. Creating a body of written decisions is unlikely to add clarity to medical standards or expectations.

**Improvements without incurring large costs**

Health courts would create a large, expensive administrative system financed by the health care industry and taxpayers. Proponents argue that this expense is necessary to achieve overall cost savings and improve safety and quality. However, the current system could be leveraged to achieve similar improvements, without incurring large costs. Many of the issues addressed previously in this article, including the ability of the current system to render appropriate decisions and to improve quality and safety, could be enhanced without drastic or costly changes. Health courts would be ineffective in reducing erroneous jury decisions because in 89 percent of the cases the current system either rules correctly or favors physicians. Changing the system also is unlikely to reduce costs because 80 percent of the costs of litigation go toward resolving legitimate claims. Reworking the system would not reduce the need to address these cases. Furthermore, changing the standard of proof in liability claims and encouraging self-reporting would potentially increase the number of claims and, thus, the overall costs.

An expensive new system is unnecessary in order to improve quality and safety. A large body of data on different errors and safety problems already exists in the form of claims filed. However, physicians, hospitals, and policymakers do not appear to be using these data to seek out methods for improving patient care. New systems for collecting data provide no guarantee that they will be applied to improving patient care.1

Health courts will be a challenge to implement and finance. Proponents of health courts argue that clinical practice guidelines can be developed to support judges deciding health court claims. Developing guidelines to support physicians’ practices in clinical medicine is difficult. Evidence-based medicine is a dynamic process that must be applied to each individual. Each patient has a unique set of medical conditions and personal circumstances that limit the applicability of specific standards and algorithms. As medical science continues to progress and the field of personalized medicine grows, it will become more difficult to establish generic guidelines. As a result, basing decisions in a health court system on standard guidelines, or the precedent of prior decisions as the standards of care, will be nearly impossible.1

Creating a new administrative system will be costly in many ways. Establishing the new structure, training judges, and paying expert witnesses—as proponents support—will be expensive. Physicians, hospitals, and the public will have to contribute to financing a new health court system. Physicians and hospitals are likely to see increased, rather than decreased, liability premiums. Insofar as increased liability rates currently are driven largely by the insurance cycle and not claims in
the system, health courts are unlikely to address the root cause of high premiums, and may make rates higher. Furthermore, liability costs could increase if, as proponents argue, changing the system will lead to increased disclosure of error. These disclosures will result in more claims filed and more payments to injured patients. Health courts overall would create logistic and financial challenges, while falling short of the goals that proponents desire.

**Conclusion**

Health court proponents are correct in arguing that the current system is slow to reward patients, is costly, and could be used more effectively to improve the safety and quality of health care delivered. However, a new, expensive bureaucracy that infringes on the rights of injured, vulnerable patients is not the answer. Efforts to encourage early disclosure and compensation offers to patients can decrease the time an injured patient must wait in order to be compensated. Further payment reforms, such as structured damage awards, could also be applied in the current tort system. Clinical guidelines could, in select areas, help to establish standards of care. Advocates of this approach could work to develop these guidelines to provide additional evidence in liability cases, which could be used to guide plaintiffs and defendants alike without an expensive overhaul of the tort system. Use of expert witnesses selected by the courts to avoid simply “buying” an opinion could also be increased under the current tort system. Thus, many of the innovations that advocates of health courts support in their proposals could be applied in the current tort system without incurring large costs, denying patients’ rights, or foregoing a jury system that historically has been quite capable of appropriately adjudicating claims.

Physicians and hospitals are likely to see increased, rather than decreased, liability premiums.

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America needs transformative medical liability reform. The current liability system costs $55 billion annually, accounting for 2.5 percent of annual health care spending.1 Traditional reforms, such as caps on noneconomic damages, have had only limited success in reducing costs of liability premiums, improving quality of care, or decreasing the cost of defensive medicine.2,3 Reducing medical liability costs is one goal of reform; another is to make the system work better as a mechanism of quality improvement.

The existing medical liability system fails nearly all of its major stakeholders: patients, physicians, and insurers. The system compensates patients inequitably and slowly.4 The average time from injury until compensation is five years.4 The system is difficult to access, so only a small percentage of patients who are injured due to medical error or negligence seek or receive compensation.5 For physicians, the system is unpredictable. Nearly one in four claims is not resolved concordantly with its merit.4 The punitive nature of the system discourages clinicians from reporting errors and may have a tremendous professional and personal impact on physicians who are sued.1,6-9 The insurance market also is unpredictable and volatile and has experienced many crises in the last 50 years.10 Transformative liability reforms that address all of these shortcomings are urgently needed.

**Traditional reforms**
Medical liability reforms in this country typically have focused on tort reform.1 Historically, three major approaches have been used: limiting access to the courts, modifying liability rules, and limiting damage awards. The effects of tort reform on health care and liability are not easily evaluated. Reforms can be assessed based on their impact on liability metrics, including frequency of claims, costs of claims, overhead costs, and...
insurance premiums. They can also be assessed using care-related metrics such as the costs of defensive medicine, physician supply (especially in high-risk fields), and quality improvement measures.

Studies that have evaluated the effect of care-related metrics have found that most tort reforms have little or no impact. The exceptions are collateral-source offsets and caps on noneconomic damages. Collateral-source offsets allow defendants to deduct from their payment to a plaintiff any compensation for injury that a plaintiff receives from external sources. Under traditional tort law, such deductions are prohibited. Caps on noneconomic damages limit the compensation that plaintiffs may seek for physical or emotional distress. Caps on noneconomic damages and collateral-source offsets have been found to have a small but statistically significant impact on both the practice of defensive medicine and on physician supply.2

Tort reforms have been adopted in up to one-half of all U.S. states. Some states have adopted multiple reforms; however, these reforms have limited scope. They aim to control the costs of the liability system without addressing other fundamental issues, such as safety, quality, and equity in compensation.

Because of these limitations, tort reform alone will not solve all of the problems in the liability system. For instance, in spite of previous reforms, the current liability system does not serve patients fairly. Injuries occur in 3 to 4 percent of all medical cases, and in 1 percent of all medical cases those injuries result from negligent medical care. Among patients injured by negligence, however, only 2 to 3 percent file claims. In contrast, the system encourages and rewards many claims of uncertain or no merit. Compensation is correlated with merit, but about one-quarter of cases are resolved discordant with their merit. Claims reviews have found that approximately one-third of all claims were not associated with injuries, yet 24 percent of those claims were compensated. In reviews of closed claims, approximately 26 percent are of uncertain merit, and 54 percent of these claims are compensated. Of the 44 percent of claims that are meritorious, 79 percent of patients are compensated. For all claimants, payment is slow. Reforms are needed that address the fundamental issue of inequitable compensation, in addition to patient safety and quality of care.

Possible liability reforms

Several proposals for transformative liability reform have been put forward, including establishment of safe harbors, early disclosure and offer (D&O) programs, judge-directed negotiation programs, and health courts. Each approach has advantages and disadvantages and may address fundamental system failures to some degree.

Safe harbors provide a legal defense for physicians who adhere to a credible and applicable clinical guidelines. Safe harbors have attracted wide, popular interest because people easily agree with the notion that a physician should not be penalized for following accepted standards of care. However, selecting those guidelines is challenging, as experts in a field may themselves disagree on best practices. Furthermore, not all medical conditions can be treated using standardized guidelines, and thus safe harbors could not be applied to all liability claims. Finally, guidelines would need to be under constant review to be able to respond to the rapid pace of biomedical research that influences medical practice. By strengthening the weight of existing guidelines in liability claims and providing physicians with some guidance about expected standards of care, safe harbors could improve quality and potentially decrease defensive medical costs. Unfortunately, the limited data from states that have experimented with safe harbors make it difficult to measure these benefits.

D&O programs focus on telling injured patients early on what went wrong and promptly offering compensation when appropriate. One advantage of these programs is that hospitals and insurance companies can implement them without a legislative mandate. In fact, some institutions and insurance companies have already begun to use this approach. Successes at individual institutions such as the University of Michigan are promising and have roused interest from a broad range of stakeholders, including the plaintiff’s bar. (For more information on the University of Michigan’s D&O program, see article on page 127.)
However, implementation of D&O may be more difficult than it first appears. Significant culture changes are required to achieve the routine reporting and disclosure needed for the reform to succeed. Furthermore, these programs require considerable institutional investment. Physicians and hospitals also may approach patients before they obtain legal counsel, which could deter patients from seeking representation when seeking compensation. Thus, D&O programs have wide theoretical appeal, but practical considerations may limit their successful implementation.

Another approach to transformative liability reform is judge-directed negotiations. In this system, claims would be routed to a subset of judges who have received special training and are assisted by neutral court attorneys who also have health care degrees, such as nursing degrees. These judges would encourage earlier settlements. As with D&O programs, no new legislation is required to implement judge-directed negotiations. This proposal also attracts a broad range of stakeholder interest for its potential to address failures in the current system, including long compensation delays and inconsistencies in decisions. Judge-directed negotiations would also prevent huge jury verdicts, which account for the worst excesses in the current system.

However, establishing a judge-directed negotiation system requires some level of investment, especially in judicial talent and education. Furthermore, claims under this system could be resolved faster than in the current system, but judge-based intervention would still occur rather late in the dispute. Overall, judge-directed negotiations have the potential to address the challenges in the current system, but have not yet been widely adopted and fail to occur early in the dispute process.

Another type of transformative liability reform, specialized health courts, has been suggested as a viable option. This model would involve creating a new administrative court system to process liability claims. Specialized judges would hear claims and issue written decisions. Courts would employ neutral medical experts to review the evidence. Health courts would also apply a broader standard than negligence, such as “avoidability,” as the basis for determining patient compensation.

Health courts align well with liability reform goals in several ways. They would likely encourage providers to use information from claims to learn why errors occur and how to improve patient safety. A written record of the cases could promote consistency in adjudication and inform physicians of expected legal standards. Health courts would also provide a quid pro quo for most stakeholders. Although more cases would be eligible for compensation, and claims would be easier to bring under health courts, judges’ rulings would create a written legal precedent that would make decisions more predictable and limit the number of large jury awards. Although individual compensation levels may be lower, health courts would make awards more attainable. However, this increase in the number of compensated patients will likely offset the savings from lower awards and overhead costs, resulting in modest, if any, cost reductions.

Furthermore, health courts face potential legal challenges. In some states, eliminating a jury trial in liability claims may be prohibited under the state constitution. Federal constitutionality has been questioned, as well. So, although health courts have the potential to address many of the shortcomings of the current system, they also would require restructuring the system and may not produce any cost savings.

A paradigm shift
All of the options for transformative reform may control costs and reduce inequitable compensation to greater or lesser extents. However, reforms must also address the current system’s lack of accountability to patients. Medical litigation focuses primarily on individual clinicians, but in the health care community it has become fashionable to discuss medical errors solely as “system failures.” The reality is that both individual and systems errors occur, often in intertwined ways. Professional self-regulation is seen as weak, and data support this perception. Although nearly one in five physicians say they have personal knowledge
There should be an open, fair, and just culture in which individuals are held accountable when they have erred but in a less punitive way than is done now.

of an impaired or incompetent colleague, only 67 percent of those physicians have reported that information. Members of the health care community worry that reporting incompetent physicians will attract a punitive response or no response, and attitudes about reporting vary across high- and low-liability states.23

Inequity and inaccuracy in patient compensation and fears of reprisal and punitive action are problems that must be addressed. However, attention is only turned to reforming the liability system when crises arise. Yet in the midst of a crisis it is difficult to make decisions and institute the transformative reforms needed to improve the litigation system.

True reforms must include a paradigm shift away from liability and toward accountability. Rather than simply focusing on individual versus system faults, reforms should promote a “just culture” in which “people are not punished for making errors, but deliberate violations and misconduct are not tolerated.”24 The primary objective of liability reforms must shift from cost-containment to supporting safe patient care and responding justly to injured patients.

This paradigm shift would satisfy what most patients want from the liability system: a system that is patient-centered, that focuses on addressing the root cause, and involves the patient and family in a meaningful way including involvement early in the error investigation.25 A patient-focused system also would promote robust self-regulation among physicians and hospitals. If the system shifts away from liability as the main mechanism of regulating quality, the profession needs to be able to assure the public that it is on the job. Just culture principles would align well with this patient-focused regulatory environment.24,26

There should be an open, fair, and just culture in which individuals are held accountable when they have erred but in a less punitive way than is done now. When errors occur, we must delineate system failures from individual

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failures, and respond appropriately to both problems with solutions that support patient safety and improved quality. Finally, a patient-focused system would be transparent with respect to the failures and successes in achieving accountability. To achieve that aim, physicians and hospitals must commit to using the information collected in error investigations to strengthen quality improvement and accountability.

Conclusion
Reforms that can transform the current medical liability system into a system that is patient-focused—in which safety, quality, accountability, and equity are paramount—will require a sustained commitment and iterative efforts from the health care community. The first step is setting up experiments with innovative reforms that are focused on the appropriate goals. The regulatory system must begin to support notions of just culture as well as mechanisms for early dispute resolution.

Furthermore, providers and insurers must publicly demonstrate a commitment to vigorous self-regulation; if liability is no longer the main mechanism of enforcing quality standards, the medical community must assure the public that it can assume greater responsibility for that task. Encouraging this paradigm shift and looking toward reforms that solve shortcomings in the liability system beyond cost containment are paramount to developing a system that truly drives quality and safety improvements. The American College of Surgeons should seize the opportunity to lead surgeons nationwide in a movement toward transforming and revamping our medical liability system.

Acknowledgment
This article is based on the keynote address that Michelle Mello, JD, PhD, presented at the Medical Liability Reform Summit. See the summit agenda in the sidebar on page 117 for details.

REFERENCES (CONTINUED)
Practicing physicians may be unsettled by the fact that over the course of their careers, more than 75 percent of all physicians are likely to be named in a liability claim. Moreover, not all claims are resolved as expected, with one study estimating that one in four claims may not be resolved in accord with the claim’s merit. The high lifetime claims rate and the incomplete overlap between the merit of a claim and its disposition have left many physicians feeling that the medical liability environment is unpredictable.

The unpredictability is readily illustrated during the claims resolution process. Because of the ambiguity that can exist as to what constitutes reasonable (for example, non-negligent) care, many liability claims often lead to a “battle of the experts” that occurs when both the plaintiff and defendant bring in qualified experts to support their side of the case. If the experts on both sides are well-qualified and equally convincing,
Some physicians worry that the introduction of prescribed practice standards will lead to “over-standardization” and cookbook medicine. However, clinical judgment will still be required to determine whether such standards are applicable to a certain case or clinical scenario.

adjudicators (for example, judges and juries) trying to decide the merits of the claim may be left without clear guidance on how to resolve the dispute.

In fact, some experts argue that the ambiguity of the claims resolution process and the desire to avoid being named in a liability suit altogether could have potentiated the practice of defensive medicine. The very existence of defensive medicine—which includes the ordering of tests or procedures primarily to reduce legal risk—clearly demonstrates how the legal system may at times be causing physicians to divert their focus away from cost-effective and high-quality care. To introduce better predictability and reliability into the existing litigation system while promoting more evidence-based standardized care (and less unnecessary utilization), many health policy experts have advocated for the creation of “safe harbors.”

Definitions and aims
Safe harbors are designed to protect physicians from liability risk if they provide care that follows approved clinical practice standards. If an adverse event occurs and a liability claim is asserted, safe harbors operate by establishing a presumption of non-negligence if the named physician adhered to the applicable, approved standards. This presumption can be either rebuttable or non-rebuttable via introduction of evidence. However, safe harbors can potentially offer additional benefits.

By providing direct guidance for negligence determinations, safe harbors may help ameliorate some of the current ambiguities in today’s litigation system for both patients and providers. At any stage in litigation, safe harbors can be a mechanism to facilitate rapid and accurate evaluation of claims for their merit. Due to the fact that they are described and documented in advance of a case, safe harbors may actually help patients (and their attorneys) better evaluate whether a claim is worth bringing forward. The availability of liability protection for following approved standards may lead to greater standardization in care and better patient outcomes as well.

Of note, safe harbors can also be deployed not only to provide liability protection, but also to help define the appropriate standard of care. This would mean that in addition to being available to physicians merely as a defense, safe harbors could also be used by injured patients to presumptively establish negligence if an approved and applicable standard was not followed. This use of safe harbors would further bolster the incentives for physicians to adhere to approved evidence-based standards.

Previous experimentation
Though safe harbors are receiving greater attention today, they are not new concepts in medical liability reform. In the 1990s, a handful of states conducted demonstration projects to test the implementation of safe harbors. However, due to their limited design or use, very little was learned from these trial implementations.

The Maine Medical Liability Demonstration Project, created by the state legislature in 1990, was a five-year safe harbor program in which implementation was limited to four clinical areas: obstetrics and gynecology, anesthesia, emergency medicine, and radiology. The safe harbor standards were selected from national medical association guidelines and were modified by a physician committee to reflect local practice. The program noted high rates of physician opt-in. However, in the five years that the program was in place, only once were the guidelines used as a defense.

Florida conducted a Cesarean Demonstration Project in safe harbors from 1994 to 1998. The project enabled obstetricians to use evidence of compliance with practice standards as a defense in liability claims. And while there was a 20 percent participation rate among obstetricians in this project, it was not renewed. However the final report recommended further experimentation and evaluation.
In Minnesota, legislation enacted in 1992 allowed the state health commissioner to designate clinical guidelines. No outcomes data emerged from the project, and the programs were not renewed. Current Minnesota law now forbids admission of guidelines issued by external review organizations into evidence.8

A recent study funded by the Agency for Healthcare Research and Quality (AHRQ) sought to determine whether safe harbors could improve both patient safety and liability system performance.9 State of Oregon investigators reviewed 266 closed claims for commonly occurring diagnostic or medical management issues for which guidelines were likely to apply.9 In claims in which guidelines were applicable, reviewers found that injury might possibly have been avoided in 30 percent of the claims had the provider adhered to a guideline, demonstrating a considerable potential for safety improvement. Some possible benefits in the claims resolution process were also suggested. Reviewers found that up to 32 percent of the cases might have been resolved more quickly had safe harbor protection been applied. However, safe harbors did not appear to provide much protection from incorrectly adjudicated claims, as only a small percentage of paid claims would not have been paid under safe harbor protection.

Oregon’s retrospective application of safe harbor guidelines underscored the potential benefits and uncertainties regarding their use. Safe harbors appear to have the potential to prevent harms, and therefore, resultant claims. Furthermore, the faster resolution of claims could decrease the emotional burden that prolonged cases can have on providers and patients and, in the process, reduce administrative and legal costs as well. However, the exact extent of the benefits and how much they will affect overall compensation payouts remains unknown.

**Perspectives on implementation**

The various stakeholders in medical liability reform—specifically physicians, patients, and policymakers—each have their own interests in and concerns about the implementation of safe harbors. Some physicians worry that the introduction of prescribed practice standards will lead to “over-standardization” and cookbook medicine. However, clinical judgment will still be required to determine whether such standards are applicable to a certain case or clinical scenario. Moreover, the potential for standardization to increase patient safety should not be overlooked.

When adverse events occur, systematic standards for adjudication can also provide greater clarity of what constitutes reasonable care, possibly also decreasing defensive practices. This improved consistency in claims resolution may also restore faith in the self-regulatory ability of the medical profession and in the fairness of the legal system. These cultural benefits should not be overlooked in evaluating the impact of safe harbor guidelines.

The Oregon results demonstrate a potential for safe harbors to improve patient safety. This may be the greatest benefit from safe harbors, for patients and providers alike. In addition, if safe harbor rules are used to define the standard of care, many claims for injury that have gone unpaid may ultimately result in patient compensation. Nevertheless, it remains an open question as to whether safe harbor protection will provide enough encouragement to result in standardized care that translates to safety improvements.

Incorporation of evidence-based medicine to clinical practice standards has already become essential to medical practice today. The Choosing Wisely campaign provides a precedent for the fair and unbiased compilation of guidelines. In this initiative, specialty physician groups partnered with the American Board of Internal Medicine and Consumer Reports, an independent not-for-profit consumer organization, to release guidelines on 45 common tests and procedures that might be overused or unnecessary.10 It provides an example of the dissemination of guidelines to providers and patients via professional organizations and consumer organizations, respectively, for the facilitation of conversations about the guidelines and their implication on care.
Safe harbors have many potential benefits, which include discouraging nonmeritorious liability claims, mitigating the unpredictability of settlements and verdicts, reducing defensive practices, and bolstering the integration of evidence-based care into clinical practice to improve patient safety.

However, the selection of the applicable standards for safe harbors—especially given the effect they may have—may be a highly debated issue. It will be critical to determine who will be responsible for selecting the standards, how standards will be chosen, and how they will be kept current and appropriate. This includes the frequency and mechanism by which these guidelines will undergo continuing review and revision to reflect current medical science and local variations in medical practice. Reliance on an expert committee composed largely of physicians, such as that which helped to launch the Choosing Wisely campaign, may be best suited to ensuring medical soundness, but may also be perceived as being biased toward physicians. Nevertheless, designation of eligible standards can have many downstream benefits, such as the resolution of disputes between conflicting best practices, heading off potential sources of contention in litigation, and improved administrative efficiency.

Conclusion

The creation of safe harbors may improve both patient safety and medical liability system performance. Safe harbors have many potential benefits, which include discouraging nonmeritorious liability claims, mitigating the unpredictability of settlements and verdicts, reducing defensive practices, and bolstering the integration of evidence-based care into clinical practice to improve patient safety. Previous experimentation has been limited in scope. The current political will and professional interest in generating standards of care, coupled with the need for liability reform, makes this an appropriate time to further investigate the effects of safe harbors.

REFERENCES

Medical liability insurance plays a large and essential role in the U.S. health care system. This article demonstrates how one insurance carrier, CRICO, has embraced and achieved the twin goals of protecting health care providers and promoting patient safety.

CRICO is the largest medical liability insurer in Massachusetts and an internationally known leader in evidence-based risk management. CRICO’s mission is to provide superior medical liability insurance to its members and to assist them in delivering the safest health care in the world. To achieve this mission, CRICO is committed to defending good medical practice, offering compensation for substandard medical care, and contesting at trial nonmeritorious cases in which no medical fault is apparent. CRICO applies this strategy to serve 12,000 physicians and 15,000 mid-level providers at 22 hospitals, including Harvard flagship hospitals, such as Massachusetts General Hospital and Brigham and Women’s Hospital, and more than 200 health care organizations.

Charitable immunity
Formed in 1976 by the Harvard Medical Institutions, CRICO operates primarily within the Massachusetts legal context, which is significant in that the efficacy of the tort system varies by jurisdiction. Massachusetts and New Jersey are the only states to provide “charitable immunity” to health care institutions, limiting their liability to $100,000 per claim. The practical effect is that patients who allege harm sue individual providers and only infrequently not-for-profit health care entities or systems. Massachusetts juries historically have viewed providers favorably. Nonetheless, CRICO is committed to fair outcomes for patients and providers alike.
Clinicians are encouraged to empathize with and support patients in order to restore and maintain trust, and in cases involving obvious error, prompt settlement is pursued.

Because litigation is often financially and emotionally costly to all parties, CRICO seeks to avoid going to trial whenever possible. Clinicians are encouraged to empathize with and support patients in order to restore and maintain trust, and in cases involving obvious error, prompt settlement is pursued. In these instances, CRICO provides physicians with guidelines for disclosure, emphasizing attention to patients’ clinical needs, as well as family questions and concerns. CRICO also advocates a team approach to disclosure, and an “institutional coach” to facilitate the process.* To date, CRICO has resolved most claims with clear liability through disclosure and apology without protracted litigation and often without any court involvement.†

CRICO’s approach to risk management has meant that, over time, the organization has seen more informally asserted claims, fewer lawsuits, and even fewer jury trials. The frequency of CRICO claims is approximately 2.3 per 100 physicians per year, well below state and national averages; 0.46 claims are paid per 100 physicians per year.‡ Awards tend to be of mid- to high financial severity because only significant cases are pursued. Very few frivolous cases are brought to court. Of the 252 CRICO claims and suits resolved in 2011, 52 percent were denied, dismissed, or abandoned by plaintiffs; 33 percent were settled; 13 percent resulted in a jury verdict or arbitration award for the defense; and 2 percent in a verdict or award for the plaintiff. Year after year, more than 90 percent of CRICO jury verdicts are for the defense. These data indicate that CRICO is meeting its goal of addressing most cases with open dialogue and payment when warranted, while reserving litigation for the 15 percent of cases that are truly contested.

**Binding arbitration**

CRICO also embraces binding arbitration as an alternative to trial. In binding arbitration, opposing parties present their cases to an arbiter, often a retired judge, who determines their relative merits. Key features of binding arbitration include a private and informal setting outside of the courtroom, no appeals process, and a written decision and explanation from the arbiter. Binding arbitration tends to occur as scheduled and without delay, unlike many court cases. Damage awards tend to be more predictable and usually are more in line with settlement values than those afforded by jury trials.

CRICO is successful in approximately three-quarters of binding arbitration cases. CRICO’s experience with binding arbitration may indicate the potential of health courts to reduce liability litigation, as described elsewhere in this issue of the Bulletin.

The key to CRICO’s success in arbitration and trial lies in its analytic process, which systematically recognizes and resolves those cases in which clinicians are clearly or likely at fault. CRICO pays meritorious claims, instead of allowing them to proceed to trial. Most fundamentally, CRICO has been successful because the group realizes that the best way to protect its members is by promoting best medical practices and patient safety. Avoiding litigation through open communication and prompt settlement where warranted is a strategy that benefits the insurer, provider, and patient alike.◆
The U.S. health care system boasts some of the world’s most sophisticated medical treatment, superior medical education and training, and hundreds of thousands of conscientious and committed health care professionals. Nonetheless, patient safety in the U.S. has been the source of concern for many years now. Patient injury is widespread, and there is little evidence of consistent improvement.\textsuperscript{1} The Centers for Disease Control and Prevention (CDC) estimates that up to 10 percent of hospitalized patients develop a hospital-acquired infection (HAI), and that 1.6 to 3.8 million infections occur annually in long-term care facilities.\textsuperscript{2} The annual direct costs of these infections may be as great as $45 billion.\textsuperscript{3} Shockingly, in 2011, 13 wrong site operations and three wrong person procedures were performed in Connecticut alone.\textsuperscript{4}

Behind each of these statistics is a name, a family, and a story of sorrow. Some patients and families suffer medical bankruptcy or unemployment, others loss of life or limb. For patients harmed while receiv-
No patient expects to visit a licensed medical facility and receive a deadly infection along with their treatment.

The Connecticut Center for Patient Safety (CTCPS), a not-for-profit patient advocacy group, was established in response to the medical mistakes and preventable harms that patients and health care consumers all too regularly endure. CTCPS’ mission is to promote patient safety, improve the quality of health care, and protect the rights of patients through public media, patient education, and legislative action.

Initially, CTCPS’ advocacy efforts focused on HAIs given the magnitude and severity of the HAI problem and the common belief that many providers had taken the issue for granted. Indeed, stakeholders ranging from hospital executives to the CDC have argued that nosocomial infections may be “expected”—a statement that illustrates a dramatic rift in the expectations of patients and the health care community. No patient expects to visit a licensed medical facility and receive a deadly infection along with their treatment.

The CTCPS is part of a growing patient safety and advocacy movement, including the Consumer’s Union. There is evidence that the health care system is starting to respond to this movement and the voices it represents. The newly established Patient-Centered Outcomes Research Institute represents a focus on patient well-being, and the Agency for Healthcare Research and Quality has plans to pilot test a patient harm complaint system. The CDC and the American College of Surgeons are collaborating to monitor surgical site infections.

These developments are encouraging, but much work remains to be done to protect health care consumers. In tackling these challenges, the CTCPS looks forward to working with and not against the health care sector. By collaborating to improve patient safety, patient advocates and providers can honor the needs and rights of patients, acknowledge the harm that has previously been done, and help ensure that such harm does not occur in the future.

Authors’ note
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Attorneys and physicians share common goals: The medical liability lawyer’s perspective

WHAT DO SURGEONS AND LIABILITY ATTORNEYS WANT FOR PATIENTS AND THE HEALTH CARE SYSTEM? THEIR ANSWERS ARE LIKELY MORE SIMILAR THAN IS FREQUENTLY ACKNOWLEDGED.

Commitment to safety

Both surgeons and patient attorneys are committed to patient well-being and the relief of patient suffering, and both have a vested interest in patient safety. They demand high-quality surgical care for patients, meaning that the right patient gets the right operation at the right time done in the right way by the right surgeon.

Yet that ideal cannot always be met. When things go wrong, when patients get hurt through no fault of their own, when looking back we can see the patient’s injury was entirely preventable, physicians and patient attorneys share two additional goals: to ensure that medical errors are not repeated and to correct the harm that was done.

Surgeons and liability lawyers believe that the causes of medical errors must be identified and discussed so that health care professionals know how to prevent injuries in the future. American surgery can pride itself on its spirit of accountability and perpetual improvement, evident for instance in the tradition of regular morbidity and mortality conferences. From a trial lawyer’s point of view, liability cases are equally powerful tools for promoting reflection, re-education, and reform in medical practice. Injured patients are aware of this already when they seek legal counsel for their medical case. Indeed, anecdotal evidence suggests that many patients pursue lawsuits largely as a means of preventing harm to others. They see a lawsuit as their only means of making the medical system safer for other patients. Many liability lawyers are motivated by a similar conviction.

HIGHLIGHTS

• The common goals of physicians and attorneys who represent plaintiffs in medical liability lawsuits are described.
• The commonalities between the professions are applied to a discussion of medical liability law and reform.
• The central tenets of the American civil justice system that are manifest in current tort law are presented and examples of several injured patients who have benefited from these legal provisions are provided.
• A strategy is proposed for assessing the fairness of proposed liability reforms, from the perspectives of surgeons and injured patients alike.
Surgeons and patient attorneys also share the belief that injured patients should receive care that improves their conditions or some other type of reparations. For surgeons, this often means providing patients with the most appropriate medical or surgical services immediately after an error has been made. Attorneys and our civil justice system address patient harm through compensation, using money as an inadequate but necessary substitute for loss of health or life.

Restoring balance
Surgeons belong to an ancient and esteemed profession; every day, surgeons cure disease, relieve pain, and make lives better. Attorneys see themselves as members of another healing profession, helping to restore to broken lives some measure of independence and dignity. Indeed, the word “compensation” is derived from the Latin “pensare,” meaning to weigh one thing against another. To compensate injured patients thus means, quite literally, to restore a balance in their lives.

Part of the legal healing process that health care providers should want to encourage is restoring the patient’s trust in their caregivers. When injured patients are treated fairly in the legal system, it helps restore their trust by facilitating communication between the clinician and the patient and providing clarity about a potential error and how it occurred. Finally, liability cases and fair compensation are means of honoring patients. Because they draw attention to patient suffering and physician error, they help ensure that the opportunity to prevent harm to another patient will not be lost or wasted.

Essence of civil justice
Democracy, Winston Churchill once said, is definitely the worst form of government, “except for all those other forms that have been tried from time to time.” Likewise, the civil justice system is easy to criticize. It’s too expensive. It takes too long to reach resolution. It can be emotionally difficult on all the participants. But it’s not broken. And like other democratic institutions, nothing better has been invented for the fair resolution of disputes. Our system is fair to the participants in the following fundamental ways:

- The system is even-handed; the same rules apply to both sides.
- The system respects the uniqueness of each litigant. Patients have the opportunity to demonstrate the full dimensions of their injury and suffering without barriers like caps on damages (at least in some jurisdictions) or payment schedules, and health care providers can justify their treatment decisions by demonstrating the uniqueness of a patient’s case.
- The American civil justice system respects and maximizes the freedom of the litigants, enabling each side to run its own lawsuit as it sees fit. Litigants hire whatever lawyers they want, pay whatever fee they negotiate, and hire whatever expert witnesses they want. Then they present their cases in courtrooms over which professional judges trained in neutrality preside and to juries drawn from a cross-section of their communities. Even in other Western democracies, these freedoms do not always exist.

Honoring patients
In the spirit of honoring patients who have suffered injury, several patient cases are described here. It is tempting to view liability litigation and reform from 40,000 feet; these patients represent the view from sea level.

- A backhoe operator lost median nerve function after undergoing a brachial plexus “cut down” for asymptomatic subclavian atherosclerosis. On repeat operation by a different surgeon, the area of nerve damage matched the width of a retractor, indicating how the nerve had likely been killed. At the trial, two vascular surgeons testified in defense of the patient’s original surgeon, defending the surgeon’s clinical prerogative even as they acknowledged unfamiliarity with the technique he used and the absence of literature advocating the “cut down” technique. In this case, as in many others, the defense defended indefensible care.
Another patient, a diesel engine mechanic, underwent what was supposed to be a routine cholecystectomy. His surgeon, however, severed the common bile duct and, when he realized the mistake two days later, performed a Roux-en-Y repair. The surgeon had no hepatobiliary expertise but chose not to refer the patient to an internationally renowned surgical center a short distance away. The patient later died of liver failure due to recurrent, ascending infections from the new, too short “bile duct.” Again, surgeons testified in defense of the responsible clinician.

A home builder underwent a revision mastoidectomy by a general otolaryngologist. After the operation, he had difficulty reading and recalling friends’ names. A computed tomography scan clearly indicated that a surgical instrument had been inserted into his temporal lobe from the operative site in the mastoid cavity. The surgeon’s strategy throughout the case was deny and defend—claim that nothing had gone wrong and argue that the procedure was performed appropriately.

Incentivizing high-quality care

Although the incidents previously mentioned are not representative of the vast majority of operations performed in the U.S., the “deny and defend” response from physicians is quite common. This reaction may be due in part to the perverse and dangerous incentives that characterize the American medical system. For instance, the fee-for-service model provides a disincentive for less-qualified surgeons to refer patients to trained specialists. Also, until the recent establishment of Medicare “never events,” hospitals were actually paid more for worse care in that they received payment for treatment of complications.

Finally, the common model of independent medical and surgical practices means that there is often no employer with the authority and incentive to ensure appropriate credentialing of employee physicians and to oversee the delivery of high-quality care.

One legal reform could go a long way toward fixing this problem. If surgeons were employees of their hospitals and not independent contractors, the employer would have both the muscle and the financial motivation to better supervise individual practitioners. It’s called “enterprise liability.” Military and Veterans Affairs hospitals already have this policy in place, and it has been beneficial to both patients and providers. Enterprise liability also lowers litigation expenses, because there is one defendant, the institution, and one defending legal team. Enterprise liability facilitates equity in insurance premiums, as the institution can determine which percentage of global insurance fees can reasonably be borne by a small number of high-risk subspecialists. Outside the government, medical practice is becoming more corporatized, and so enterprise liability fits into a trend that is already happening. Surgeons in particular would stand to benefit from this practice model.

A related concept is “enterprise notice.” Under this policy, the plaintiff’s attorney brings a notice against an institution where the patient suffered apparent harm, stops the statute of limitations “clock,” and can then carefully determine which clinicians ought to be included. This practice prevents lawyers from using the “sue everyone who touched the patient” tactic, especially when they are faced with a limitations deadline for filing suit.

Liability reform

Given the aforementioned strengths of the U.S. civil justice system, patient attorneys are confident that the tort system is the best method for the resolution of medical disputes and the compensation of patient injury. Nonetheless, some currently proposed liability reforms could be effective adjuncts to the tort system. A malpractice attorneys’ perspective on several of these approaches follows:

Disclosure and offer (D&O) programs

D&O programs might be summarized as acting openly and honestly with the patient, and no new laws or legal reforms are needed to enable physicians to be upfront and honest after harm has occurred. Fur-
Surgeons belong to an ancient and esteemed profession; every day, surgeons cure disease, relieve pain, and make lives better. Attorneys see themselves as members of another healing profession, helping to restore to broken lives some measure of independence and dignity.

thermore, insofar as the civil justice system promotes fairness and truth, it already fulfills some of the central goals of D&O programs.

Nonetheless, lawyers tend to be receptive to early offer and apology programs, with several key conditions. First, participation of all hospital staff, including non-employee physicians, must be mandatory. If not, patients may misread a clinician’s failure to apologize as an indication that whatever happened was not a preventable, compensable error. Second, patients must have the right to hire their own attorneys, and lawyer presence should be encouraged. Just as physicians, hospitals, and health care systems have their own counsel, so too should patients. Equal representation will ultimately protect hospitals from accusations of undue influence or fraud. Third, any clock for legal deadlines should be stopped for the duration of the patient-hospital talks. Patients should be offered fair compensation, and patients who decline early offers must not be penalized. Finally, whereas apologies should be protected from use in court, the facts behind them should not.

Safe harbors

Although the safe harbor principle may be touted as a novel proposal, features of it are already written into law. Federal Rule of Evidence 803(18) states that clinical practice guidelines and other authoritative professional literature may be discussed at trial by either side with a sponsoring expert witness to explain them. Plaintiff and defense attorneys already use guidelines to support or defend the claim. However, the safe harbor concept becomes unacceptable if it allows guidelines to be used as a “get out of jail free” card. Guidelines must be useful in exonerating and implicating clinician wrongdoing.

Acceptance of one-way guidelines would foster a “race to the bottom” in terms of the quality and clinical utility of those guidelines. Safe harbor legislation would incentivize only minimalistic standards of care. In addition, guidelines vary in quality. Different professional groups endorse different guidelines, often in keeping with their own professional interests, and not all guidelines are based on the gold standard of randomized controlled trials.

Clinicians will appreciate that guidelines do not always apply to an individual patient’s care. Physicians would not be necessary if medicine were solely a matter of guidelines and algorithms. Why should clinical guidelines be legally conclusive if they are not always conclusive in real-life medical practice?

Compensation schedules

In the eyes of many attorneys for injured patients, compensation schedules are “a solution in search of a problem.” Clinicians may favor compensation schedules in part because they often tend to overestimate average lawsuit payments to plaintiffs and similarly underestimate juries’ favor of physicians. Indeed, research studies have shown that even among cases that insurance companies have classified as “indefensible,” plaintiffs win only half the time.4 It is also important to note that the occasional outlandish verdict/award is invariably revised and reduced by the trial judge or the appellate court. The better approach is what the system already has: individual decisions on appropriate damages, with the jury acting as the “conscience of the community” and judges providing oversight.

Health courts

Many clinicians favor the implementation of health courts, in which a judge with special training in medical liability determines the verdict instead of a jury. However, this scenario may be less favorable to clinicians than they think. Are juries biased? Absolutely, but not against physicians, as the medical community tends to assume. Juries have a very heavy thumb on the scales of justice favoring the physician defendant. Indeed, it is unlikely that a health court—and a judge trained in medical law and impartiality—will be as biased in physicians’ favor as juries tend to be. In veterans’ and military hospitals, for instance, where life-appointed federal judges from both political parties decide cases, the plaintiff’s win rate is considerably higher than it is for equivalent cases before juries.5 Additionally, a shift from negligence to preventability as the legal standard solves no problems. The system must maintain and enhance accountability for errors, and avoid conflating harm due to error with
In discussing health courts, safe harbors, and other reform proposals, surgeons should consider the following litmus test of fairness: Is this reform one you would advocate if the tables were turned, and instead of speaking for physicians you were advocating for a family member injured by care at a medical institution other than your own?

Patient safety initiatives

Patient safety is a priority for medical liability lawyers and clinicians alike. It has been demonstrated that patient safety initiatives result in healthier patients and dramatic savings for insurers and hospitals.

The statistics regarding medical error are dramatic and dire, but the numbers themselves are not the point: behind each number is a patient, a person, and a family whose lives were broken by preventable medical errors. These people deserve to be treated honestly and fairly by our compensation system. Just as importantly, these patients want assurance that their suffering has not been in vain; they want to help make sure that the same thing doesn’t happen to other people. Indeed, this is the charge for both the legal and medical professions.

unavoidable clinical risk; if we compensate all harms in hospitals, even non-preventable ones, the system loses all connection to accountability for doing a poor job. Furthermore, the goals of the medical liability system should not be to compensate all patients who suffer harm, but to compensate those individuals who have injuries that were preventable and are severe. It’s the disabled, maimed, paralyzed, brain-damaged patients, and family members of those killed who need a system that tries to bring some measure of justice to what’s happened to them. The health court system must not divert resources from the compensation of relatively few severely injured patients to that of many mildly injured patients. The system must serve those who have suffered the greatest harm and greatest loss.

In discussing health courts, safe harbors, and other reform proposals, surgeons should consider the following litmus test of fairness: Is this reform one you would advocate if the tables were turned, and instead of speaking for physicians you were advocating for a family member injured by care at a medical institution other than your own?

REFERENCES

The nation’s current medical liability system places patients in jeopardy of losing their access to vital health care services and forces surgeons and other physicians to practice “defensive medicine” by ordering additional tests to protect themselves from frivolous lawsuits. Additionally, medical liability insurance premiums have risen steadily, at times increasing an average of 15 percent a year. In some states, surgical specialists—particularly obstetrician/gynecologists, neurosurgeons, and orthopaedic surgeons—have witnessed even more dramatic increases, making premiums prohibitively expensive.

With affordable medical liability insurance becoming increasingly difficult to find, physicians are retiring early, limiting their practices, or moving to states with less costly premiums. At the same time, reimbursement from Medicare and other insurers is declining, providing no way to offset the continuing escalation in premium costs. This disturbing trend is leaving entire communities without access to critical health care services.

Federal Response

Efforts to address this crisis have included a variety of public policy measures. Over the years, Congress has made several attempts to adopt health care liability reforms like those enacted in California under the Medical Injury Compensation Reform Act (MICRA) of 1975. MICRA has demonstrated that medical liability costs can be stabilized while patients’ rights are protected.

In 2009, the Agency for Health Research and Quality issued $25 million in grants to support patient safety and medical liability reform demonstration and planning projects. Additionally, the Affordable Care Act (ACA) authorized $50 million over five years in grants to states for the development, implementation, and evaluation of certain alternatives to current medical litigation.

Most recently, Rep. Phil Gingrey (R-GA) introduced H.R. 5, the Help Efficient, Accessible, Low-cost, Timely Healthcare (HEALTH) Act. Identical to legislation that was previously passed by the House of Representatives, the bill would address concerns regarding medical liability and areas unaddressed by the ACA.* The first section of the H.R. 5 sets a $250,000 damage cap on noneconomic damages regardless of the number of parties involved in the lawsuit. Noneconomic damages are defined here as damages primarily from pain.

and suffering. H.R. 5 would not enforce a damage cap on economic damages defined as monetary losses resulting from an injury like medical expenses, lost wages, and rehabilitation costs. H.R. 5 would limit punitive damages to the greater of $250,000 or two times the amount of economic damages awarded. Punitive damages are often awarded when compensatory damages (economic and noneconomic) are deemed an inadequate remedy and are intended to deter similar conduct. An additional provision of H.R. 5 would set the statute of limitations for medical malpractice cases at three years after the manifestation of injury or one year after the discovery of the injury or when the injury should have reasonably been discovered. A third provision of H.R. 5 would place a limit on attorneys’ contingency fees. Advocates of contingency fee limits argue that such costs cause juries to inflate verdicts and prompt lawyers to file frivolous lawsuits in the hope of settling. A fourth provision of H.R. 5 provides that in cases involving multiple defendants in which each party is responsible for damages, the damages would be in direct proportion to individual percentage of fault and would not make an individual liable for the share of any other person.

STATE SOLUTIONS
Several states across the country have successfully enacted medical liability tort reform legislation, but problems with affordability and availability of insurance persist in many regions and in multiple physician specialties. California’s MICRA, passed in 1975, is the standard for a state’s response to the medical liability crisis. Since MICRA was enacted, California physicians have seen a 283 percent increase in liability premiums compared with the astronomical 925 percent for physicians in the rest of the U.S. Not surprisingly, California has more physicians per capita, including surgeons and specialists, than states with higher malpractice premiums. The following information is a brief summary of alternative reforms that states are instituting to reduce the cost of malpractice insurance. (Editor’s note: The information featured in quotes in the following paragraphs are sourced directly from state codes, chapters, and law.)

Medical malpractice review panels
Pre-trial medical malpractice review panels have been instituted in 21 states. The execution of this concept has varied from state to state, and the impact of these panels is still an area of intense investigation. Of those 21 states, only 13 have mandatory processes and only four are admissible in court. One state that has successfully implemented medical malpractice review panels is Delaware, which has an established system designed to prevent meritless controversies from advancing to litigation. The panel advises the court as to whether the evidence supports the conclusion that the defendant failed to comply with the standard of care. A party may ask the court to review the opinion of the panel, and the court has the power to strike any portion of the panel’s opinion that is based on an error of law or unsupported by substantial evidence. If the case proceeds to trial, the panel’s negative opinion is admissible as evidence of negligence, but the opinion is not viewed as conclusive. Moreover, members of the review panel may not be required to testify in court.

In Indiana, all claims against qualified providers for more than $15,000 must be heard by the medical review panel (unless each party executes a written waiver). The medical review panel consists of one lawyer and three health care providers. The health care providers on the panel have a duty to express an expert opinion as to whether the evidence supports the conclusion that the defendant acted or failed to act within the appropriate standards of care and whether they were factors in the resulting injury. The opinion issued by the panel is admissible as evidence in any subsequent action but is not conclusive.

In Maine, a mandatory pre-litigation screening panel has been established. Before a medical malpractice claim may be filed, a complaint must be filed with a pre-litigation screening panel. The screening panels serve a two-fold function of encouraging both the early resolution of claims and the withdrawal of unsubstantiated claims. However, the pre-trial screening process can be waived if all parties agree. Unless the panel’s decision is unanimous, the findings of the panel and any disclosures made at the hearing are confidential and cannot be used in subsequent litigation.

In Massachusetts, a tribunal consisting of a judge, physician, and lawyer is formed to review a medical malpractice action and determine if the evidence merits a question of liability. The panel’s findings, as well as the expert testimony given before the panel, are admissible at trial. If the panel finds against the claimant, the claimant must post a $6,000 bond (this amount may be increased at the court’s discretion) for the payment of the defendants’ costs if the claimant is unsuccessful at trial as well.
In New Mexico, a mandatory medical malpractice review commission must look at the details of the case before the filing of a lawsuit; however, the commission's findings are neither binding nor admissible in any subsequent court proceedings.

**Punitive damages**

Some states have implemented statutes to limit punitive damages in hopes of deterring frivolous lawsuits and providing more stability for malpractice insurance. In Mississippi, punitive damages are limited to 4 percent of the defendant’s net worth if that net worth is $50 million or less. Mississippi requires that punitive damages are awarded in a separate proceeding with a standard of “actual malice, gross negligence which evidences a willful, wanton or reckless disregard for the safety of others, or committed actual fraud.”

In North Carolina, punitive damages are limited to the greater of three times the amount of compensatory damages or $250,000. North Carolina does not require a separate proceeding but requires that the standard be fraud, malice, or willful or wanton conduct. According to *Woods v Mendez*, “Willful and wanton negligence is action undertaken in conscious disregard of another’s rights or with reckless indifference to consequences with the defendant aware, from his knowledge of existing circumstances and conditions, that his conduct probably would cause injury to another.”

The state of Oklahoma limits punitive damages for reckless disregard at $100,000 or actual damages awarded; whereas intentional acts by defendant and acts with malice are awarded the greatest of $500,000, twice the actual damages awarded, or financial benefit derived by defendant. If the court finds beyond a reasonable doubt that the defendant engaged in conduct that was life-threatening, then there is no cap for punitive damages. Meanwhile, Virginia has implemented a mandatory cap for punitive damages that is not to exceed $350,000. In order to receive punitive damages, the defendant’s conduct must be shown to have been willful or wanton.

**Noneconomic damages**

Typically, in discussions regarding medical malpractice reform, the focus has been almost solely on capping noneconomic damages. Advocates for limits on noneconomic damages argue that a lack of caps guarantees unpredictability and inconsistency in awards to plaintiffs and forces insurers to counteract the effects of these potential losses by charging higher premiums. Those advocating against noneconomic damages caps argue that it could have disparate effects on different patient populations, including but not limited to elderly plaintiffs who may not be able to claim economic damages for lost wages. Therefore, noneconomic damages caps would leave the individuals with minimal compensation and a decreased incentive for lawyers to represent them.

Several states have successfully implemented caps on noneconomic damage awards. California’s MICRA allows a cap at $250,000 for noneconomic damages. MICRA, while not perfect, has stabilized medical malpractice insurance costs and preserved patient access to physicians, nurses, hospitals, and other health care providers. In New Mexico, noneconomic damages are capped at $600,000. These damages are not to be awarded for future medical expenses in malpractice claims. Texas passed a law in 2003 that

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**Medical liability reform ideas**

To alleviate the medical liability crisis and ensure patient access to surgical services, the College believes incorporating the following medical liability reform ideas is critical:

- Reasonable caps on noneconomic damages
- Alternatives to civil litigation, such as health courts and early disclosure, and compensation offers to encourage speedy resolution of claims
- Protections for physicians who follow established evidence-based practice guidelines
- Protections for physicians volunteering services in a disaster or local or national emergency situation
- Collateral source payment offsets that prevent duplicate payments for the same expense
- Fair share rule
- Periodic payment of future damage awards of more than $50,000
- Limits on plaintiff attorney contingency fees
- Application of punitive damages only when there is clear and convincing evidence that the defendant intended to injure the claimant
- Payment of defendants’ costs if claimant is unsuccessful at trial

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*Woods v Mendez, 527 SE 2d 263 (2003).*
limits noneconomic damage awards to $250,000 per claimant per provider. If more than one health care institution is found liable, the cap against the providers rises to $500,000. The results have shown a reduction in liability insurance rates, reported growth in the number of physicians licensed each year, and increased charity care.

Tennessee does not have a statute limiting noneconomic damages. However, in October 2008, the state implemented the Tort Liability and Reform Act. Under this law, a certification process requires written notice to medical providers issued 60 days before the medical malpractice lawsuit is filed. The law also requires early attorney certification that a qualified medical expert has concluded that there is good cause to pursue the claim against each defendant. The certificate of merit is of great value in preventing baseless cases. Failing to comply with the certification process could cause the case to be dismissed and the violating attorney to pay the opposing parties’ attorney’s fees and expenses. Since the law became effective, the number of claims filed is down at least 50 percent.

Contingency fees
To date, contingency fee caps and restrictions are used in four states. In Indiana, a lawyer’s contingency fee may not be more than 15 percent of any award, including awards from the patient compensation fund. Both Tennessee and Utah have implemented a cap on contingency fees that is not to exceed one-third of the amount recovered, whereas California and Connecticut have implemented a sliding scale similar to that of H.R. 5.

CONCLUSION
For more than a decade, many Fellows of the College have seen their liability insurance premiums skyrocket, regardless of their personal litigation history. The crisis confronting the surgical profession continues to grow, limiting access to safe surgical care for the sickest and most vulnerable patients in society. Therefore, the College will continue to strongly advocate for meaningful medical liability reform on both the state and federal level.

The College’s leadership is aware of the current challenges in passing federal and state medical liability reform legislation. However, College leadership believes that passing such legislation should remain a significant priority for both Congress and state legislatures, and that there are a number of approaches worthwhile to pursue in order to achieve this goal. To alleviate the medical liability crisis and ensure patient access to surgical services, the College believes that incorporating certain medical liability reform ideas (see box, page 162) in future legislation is critical.

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Medical liability reform remains a point of contentious debate in the U.S. A growing base of literature shows that the current system for litigating medical malpractice is inconsistent, wasteful, and damaging to physicians and patients. Most patients who sustain injuries due to negligent care never sue, and only one in six who do sue ever receive compensation.\(^1,2\) Conversely, nearly 40 percent of medical malpractice claims lack evidence of medical error or patient injury. Not easily dismissed, these non-meritorious cases account for 16 percent of medical liability costs. Furthermore, claims that are litigated have excessive administrative overhead. For every dollar spent on compensation to the injured patient, 54 cents are spent on lawyers, experts, and courts; yet despite the resources that are being poured into the system, patients must wait an average of five years after injury to achieve a resolution.\(^2\)

The cost of this inefficient system ultimately falls to health care providers and their patients. Premiums for liability insurance have been skyrocketing in recent years. In 2006, 21 states were declared as being in a liability insurance “crisis,” with premiums increasing by as much as 80 percent annually.\(^3\) Both affordability and availability have been compromised in these states as liability insurers abandon the market and the premiums charged by those who remain dramatically increase.\(^4\) The increasing severity and frequency of awards have contributed to rising premiums.\(^5\) The national average jury award nearly doubled, increasing to $6.2 million in 2002 from $3.9 million in 2001, largely due to noneconomic damages, which have no maximum in many states.\(^6\)

The burden of increasing litigation pressure does not stop at the physician’s pocketbook; it negatively affects the care physicians provide to patients. A study examining quality of care in Pennsylvania as it entered a liability insurance crisis suggests that increased liability pressure reduces physician satisfaction and weakens the patient-physician relationship.\(^7\) Whereas the malpractice system may discourage negligent or harmful care, it may go too far, altering the practice of physicians and provoking the practice of “defensive” medicine.

Defensive medicine

Defensive medicine can be positive or negative. Positive defensive medicine occurs when physicians order a test, study, or procedure that isn’t indicated or cost-effective but may protect them from litigation. One survey found that 93 percent of specialists believe that they altered their clinical practice due to malpractice concerns, and 43 percent ordered clinically unnecessary imaging to protect themselves from lawsuits.\(^8\) Negative defensive medicine occurs when physicians abstain from providing necessary care in order to mitigate the risk of litigation, or when they leave states with higher litigation pressures or exit the profession altogether.\(^9\) A total of 42 percent of surveyed physicians had restricted their practice in some way to reduce their exposure to litigation.\(^8\) The cost of this defensive medicine has been estimated to be 2.4 percent of health care spending or $56 billion per year.\(^10\)
Despite President Obama’s call to “scale back the excessive defensive medicine that reinforces our current system,” the Affordable Care Act does not explicitly address medical liability reform. Efforts to pass national tort reform legislation have long been stymied. Some states, including California as early as 1975, have implemented more progressive approaches, but success at the state level has been inconsistent. (The details of these federal and state liability provisions are discussed beginning on page 166.) In addition to the political contest surrounding medical liability reform, there is much debate about what policies would have the most beneficial effects. So far, the evaluations of traditional reforms have primarily focused more on measures of the liability system than on the downstream effects on patient care. Liability-related metrics include claims frequency; indemnity costs (amounts paid in verdicts or settlements); overhead costs; and the costs of malpractice insurance. Care-related metrics include the amount of defensive medicine, supply of physicians in an area, and patient outcomes. (See Table 1, this page, for a list of traditional legislative reforms and a summary of the evidence related to each approach.)

### Table 1. Effects of traditional malpractice liability reforms

<table>
<thead>
<tr>
<th>Proposed reform</th>
<th>Description</th>
<th>Effects</th>
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| Caps on damages  | Limit amount of awards for non-economic losses or punitive damages | • Reduces some defensive practices  
• Modestly improves physician supply  
• Reduces indemnity payments  
• Constrains growth of insurance premiums  
• Limited or equivocal evidence on claims frequency or care quality |
| Statute of limitation and repose | Limit the amount of time a patient has to file a claim | • Associated with modestly lower premiums  
• No effect on indemnity payments  
• Limited or equivocal evidence on defensive medicine, physician supply, quality of care, claims frequency, and overhead costs |
| Pretrial screening panels | Expert panels review cases to determine merit | • May reduce defensive practices  
• No effect on indemnity costs, claims, or premiums  
• Limited or equivocal evidence on physician supply and quality of care |
| Certificate-of-merit requirement | Requires an affidavit from a medical expert affirming merit | • Limited or equivocal effect on defensive medicine, physician supply, indemnity costs, overhead costs, claims frequency, and premiums |
| Limit on attorneys’ fees | Limits amount plaintiff’s attorney may charge as a contingency fee | • No effect on indemnity costs, claims frequency, premiums, or physician supply  
• Limited or equivocal evidence on defensive practices and quality of care |
| Joint and several liability “fair share rule” | When multiple defendants exist, liability is limited to the percentage of fault allocated to that defendant | • No effect on indemnity costs, premiums, overhead costs, or physician supply  
• Limited or equivocal evidence on defensive medicine, quality of care, and claims frequency |
| Collateral-source rule | Allows deduction of an award if injured patient has received compensation from another source | • No effect on defensive medicine, physician supply, quality of care, indemnity costs, claims frequency, premiums, or overhead costs |
| Periodic payment | Allows awards to be paid over a period of time rather than lump sum | • No effect on physician supply or indemnity costs  
• Limited or equivocal effect on defensive medicine, quality of care, claims frequency, premiums, and overhead costs |
State legislation

Until the 1970s, public policies on medical liability were primarily determined by the state court system as part of common law, but as the cost of malpractice insurance rose, health care professionals began bringing the issue to the attention of state legislators.\(^{13}\) The types of reform passed in the states have varied, but legislation placing caps on damages has been gaining popularity. One of the earliest state reform efforts, the 1975 Medical Injury Compensation Reform Act (MICRA) of California, was established after Gov. Jerry Brown (D) called a special session to address the medical liability crisis in the state. Bipartisan California legislators enacted MICRA, which included a $250,000 cap on non-economic damages, limits on attorney contingency fees, a statute of limitations, and a provision for periodic payments for awards. Since MICRA was enacted, malpractice premiums in California have increased at a third of the national rate, and it has reduced health care spending, saving Californians $6 billion dollars annually.\(^{14}\)

Currently, 35 states have established some sort of cap on damages. Amounts of the caps vary between $250,000 in California and $1.75 million in Nebraska. A total of 16 state courts have upheld caps, while 11 have overturned the limits on damage awards, maintaining that they are unconstitutional. For instance, the Illinois Supreme Court ruled that caps on noneconomic damages were unconstitutional in 2010. As a result, liability costs in Illinois are expected to jump by 18 percent this year.

The constitutions of four states, Arizona, Kentucky, Pennsylvania, and Wyoming, explicitly prohibit caps on damages.\(^{15}\) A 2006 analysis showed states that had successfully adopted caps on damages have 3 to 4 percent lower health care expenditures than those states without caps.\(^{16}\) These reductions translated into increases in private health insurance coverage.\(^{17}\) In states with reforms that directly reduce the expected malpractice award, such as caps on damages, physician supply increases by 3.3 percent.\(^{18}\) For example, Texas had a 59 percent larger annual growth rate of newly licensed physicians in the two years following reform compared with the two years before reform.\(^{19}\)

This year has been remarkably successful for state-level reform, with nine states passing some type of medical liability legislation. North Carolina and Tennessee established caps on damages for the first time, with the North Carolina General Assembly overriding the governor’s veto of the bill. Oklahoma and South Carolina successfully enacted more stringent caps.\(^{20}\)

Federal legislation

Whereas successes at the state level have been notable this year, until national standards are set, reform will remain inconsistent. With some state constitutions explicitly limiting medical liability reform and others having politically unfavorable environments, there is growing support for federal action on this issue. Medical liability reform has long been a strongly partisan issue, in large part lauded by Republicans and disparaged by Democrats.

The House of Representatives has passed comprehensive medical liability legislation more than a dozen times since 1995, as recently as 2005. However, from 2006 to 2010, legislation addressing liability never reached the House floor. In January 2011, the House Judiciary Committee held a special hearing titled Medical Liability Reform: Cutting Costs, Spurring Investment, Creating Jobs. During this session, experts testified on the damage that the current liability system is doing to our health care system and the need for comprehensive legislation based on successful state reforms. Several professional associations, including the American Medical Association, American College of Surgeons (ACS), and the American Congress of Obstetricians and Gynecologists, submitted statements supporting reform.\(^{21}\)

The bill that has made the most progress in 2011 has been H.R. 5: The Help Efficient Accessible, Low-cost, Timely Healthcare (HEALTH) Act. This comprehensive bill comprises several traditional reforms, including a $250,000 cap on noneconomic damages, a three-year statute of limitations, joint and several liability, limits on attorney contingency fees, a collateral source rule, and limits on punitive damages. The House Energy and Commerce and Judiciary Committee has approved the legislation.\(^{22}\) In March 2011, the nonpartisan Congressional Budget Office (CBO) conducted an analysis of hypothetical reform with provisions similar to those in H.R. 5. The CBO estimated that mandatory and discretionary spending by Medicare and other governmental health care payors would be reduced by $50 billion and $1.6 billion, respectively. The CBO also estimated that premiums paid by employers that are tax-exempt would decrease, and the subsequent...
increase in employee wages would generate $13 billion in tax revenues. The CBO concluded that comprehensive medical liability reform would save the U.S. government a total of $65 billion dollars in 10 years. Other comprehensive medical liability reform legislation has been introduced by the 112th Congress. H.R. 2205, Ending Defensive Medicine and Encouraging Innovative Reforms, introduced by Reps. Charles Dent (R-PA-15) and Erik Paulsen (R-MN-3), calls for caps on damages, allows periodic payments of awards, sets a fair-share rule, and requires that selected experts determine the merit of each case. H.R. 896, Medical Justice Act, introduced by Rep. Michael Burgess (R-TX-26), caps noneconomic and total damages, allows for periodic payment of awards, sets a fair-share rule, enacts a statute of limitation, and requires that a jury awarding punitive damages be unanimous in its decision. Additional proposed legislation, including H.R. 157: The Health Care Safety Net Enhancement Act, introduced by Rep. Pete Sessions (R-TX-32)—which protects health care professionals who provide medical services in emergency situations from liability—has also been proposed, but does not address other aspects of liability reform.

**Alternative dispute resolution**

Due to the fact that significant political roadblocks continue to discourage passage of federal and state level tort reform legislation, advocates for medical liability reform have turned their attention toward alternative methods of resolving malpractice claims. In 2010, $25 million in federal funding was allocated to pilot programs for alternative dispute resolution (ADR)

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<th>Program</th>
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| Guidelines protection “safe harbor” | Physicians practicing within established guidelines would be presumed to be non-negligent | Pro: Encourages evidence-based medicine  
Con: “Cookbook” medicine, implies negligence for not following guidelines |
| Enterprise liability           | Organizations bear some of the liability for malpractice                    | Pro: Increased efficiency, direct physician monitoring  
Con: Little evidence, rarely done privately now so may not have benefit |
| Binding alternative dispute resolution | Providers and patients submit disputes to a third party instead of a court | Pro: Compensation is faster, more equitable, and with lower transaction costs  
Con: May be biased toward defendants due to relationships forming with third party, limited repeal options |
| Health courts                  | Specialist judge and committee hears all malpractice cases                  | Pro: More continuity and less variability, reduces erratic jury-determined settlements  
Con: May not lower overhead or transaction costs |
| No-fault                       | Administrative body replaces court, grants awards without seeking to prove fault | Pro: Aims to compensate larger groups more equitably, with less administrative costs  
Con: May lead to higher spending overall even if individual awards are less, may decrease disincentives to malpractice |
| Disclosure-and-offer           | Insurer and insured institution proactively disclose adverse outcomes, investigate, apologize, and compensate | Pro: Aims to compensate larger groups, reducing over- and under-compensation, with less transaction costs  
Con: May lead to higher spending overall even if individual awards are less, may decrease disincentives to malpractice |
| Adverse-event prevention       | Targets improvements in communication about potential adverse outcomes and focuses on attempts to reduce adverse events from occurring | Pro: Greater effect on patient care measures  
Con: Does not improve the process of litigation when claims are made |
located to the Agency for Healthcare Research and Quality (AHRQ) to develop demonstration projects for programs that will improve patient safety, reduce defensive medicine, and reform the liability system at the provider level. The Affordable Care Act authorized an additional $50 million for demonstration projects addressing medical liability and patient safety.

An early champion of non-traditional approaches to resolving liability claims is the University of Michigan Health System in Ann Arbor, which developed a disclosure and offer model. Under this paradigm, the provider institution and liability insurer proactively identifies adverse outcomes, investigates them, apologizes for them, and offers reimbursement without seeking to establish fault. This program led to a 36 percent reduction in frequency of claims, a 30 percent reduction in time until resolution, and a 44 percent reduction in cost per lawsuit. The AHRQ has funded planning grants and demonstration projects that would expand the Michigan disclosure-and-offer model outside of self-insured hospital environments.

Other approaches involve specialized branches of the judiciary system. For example, a small group of judges—trained in malpractice and assisted by a court attorney trained in nursing—adjudicate a claim, and the case is then seen to resolution by a single judge at a private hearing. Other projects focus entirely on prevention of adverse events before harm or subsequent litigation ever occurs. These projects seek to improve patient-physician communication about care plans, care-team cooperation, and adherence to evidence-based guidelines. (See Table 2, page 167, for descriptions of alternative approaches to liability reform.)

These alternative dispute resolution mechanisms have the potential to discourage claims from going through the costly litigation process, and some projects aim to prevent the adverse events from occurring in the first place. Many of these alternatives keep mediation of claims within the hospital system. The hope is that by avoiding litigation, a greater number of injured patients will receive compensation sooner and more equitably, even if the amount per patient is less, and that adverse incidents can serve to inform the systems of care about what steps they need to take to avert future adverse events. Despite the fact that these alternatives could reduce the frequency of adverse events and malpractice, some providers and insurers are still hesitant to take on risk without strong proof of the benefits or protection from federal or state laws.

**Conclusion**

The future of medical liability reform remains uncertain, but the negative impact on physicians and patient care of our current inefficient and ineffective system worsens every year. In the current deficit reduction-focused environment, with Medicare potentially on the chopping block, it is critical to consider medical liability reform as a means of cutting health care spending, improving the patient-physician relationship, and increasing access to care. Action from medical professionals and patients is critical to express the urgency and wide base of support for reform efforts. The ACS supports medical liability reform, and specifically recommends the following:

- Caps on noneconomic damages
- Alternatives to civil litigation, such as health courts and disclosure-and-compensation offers
- Protections for physicians volunteering services in an emergency situation
- Shields for physicians who follow established, evidence-based guidelines of care
- Collateral source offsets that prevent duplicate payments
- Fair share rule
- Periodic payment of future damage awards totaling more than $50,000
- Limits on plaintiff attorney contingency fees
- Application of punitive damages only when the evidence indicates that the defendant intended to harm the claimant

The growing number of demonstration projects investigating alternatives to medical liability legislation highlights the sustained interest on behalf of providers, insurers, and patients to solve this problem with or without legislative help. These novel approaches may provide solutions that tort reform is incapable or politically hindered from achieving. Although public statements of support for medical liability reform are still sparse, funding for these projects from the Obama Administration provides hope that both parties may cooperatively address this issue.

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2. Studdert DM, Mello MM, Gawande AA, Gandhi TK, Kachalia A, Yoon C, Puopolo AL, Brennan TA. Claims,


Mr. Metzler is a student at Harvard Medical School studying health systems improvement and health care policy at Children’s Hospital Boston.

Dr. Meara is plastic surgeon-in-chief, Children’s Hospital Boston, and associate professor of surgery and director of the program in global surgery and social change, Harvard Medical School, Boston, MA. He is the Chair of College’s Legislative Committee.
Incentive Programs
Choosing not to participate in the CMS incentive programs

by Sana Gokak, MPH

The Centers for Medicare & Medicaid Services (CMS) oversees several programs that offer eligible professionals (EP) incentives for successful participation and penalties for nonparticipation. These programs include the Electronic Prescribing (eRx) Incentive Program, the Physician Quality Reporting System (PQRS), and the Electronic Health Record (EHR) Incentive Program. The deadlines for enrollment in some of these programs are already in place, and others are drawing near.

To help surgeons successfully comply with the requirements associated with participating in these programs, the American College of Surgeons (ACS) has continued to make available new or updated information concerning each phase of the programs’ implementation in the Bulletin, on the ACS website, and in other ACS communications. This column summarizes the different reporting options available and what happens when surgeons and other EPs elect to not participate in the programs. Table 1 on page 174 provides an overview of the incentives and penalties associated with the PQRS, eRx and EHR programs.

What is the penalty if I do not participate in the eRx Incentive Program?

EPs who choose not to participate in the eRx Incentive Program and who do not qualify for an automatic exemption may be penalized starting in calendar year (CY) 2014. To avoid a 2014 eRx payment penalty of 2 percent of the Medicare Part B physician fee schedule amount for covered professional services, health care professionals must meet one of the following criteria:

- Report electronically 25 times for denominator eligible visits from January 1 to December 31, 2012. Refer to Table 2 on page 174 for a list of the denominator eligible codes.

- Report electronically at least 10 times from January 1 to June 30, 2013, for any visit. The visit does not have to be associated with a denominator eligible code, but must be submitted in conjunction with a billable, covered procedure not associated with a global period.

- Apply for a 2014 significant hardship exemption by June 30, 2013, once the portal opens in early 2013. See the sidebar on page 173 for a list of the 2014 significant hardship exemptions.

- Be automatically exempt from the eRx Incentive Program. EPs who meet any one of the automatic exemptions do not have to apply or submit anything to CMS. EPs will be automatically exempt from the 2014 eRx Incentive Program penalty if they meet any one of the following:
  - EP is a successful electronic prescriber during the 2012 eRx 12-month reporting period of January 1 to December 31, 2012
  - EP is not an individual with a medical degree, doctor of osteopathic medicine, podiatrist, nurse practitioner, or physician assistant by June 30, 2013
  - EP does not have at least 100 Medicare Part B physician fee schedule cases containing denominator eligible codes as listed in Table 2, for dates of service from January 1 to June 30, 2013
  - At least 10 percent or more of the EPs Medicare Part B physician fee schedule charges are not from denominator eligible codes for dates of service from January 1 to June 30, 2013
  - The EP does not have prescribing privileges, and reported G8644 on a billable Medicare Part B service at least once on a claim between January 1 to June 30, 2013

What is the penalty for not participating in the PQRS program?

EPs who choose not to participate or who are unsuccessful in their attempts to comply with the PQRS program face a payment penalty of 1.5 percent of the Medicare Part B physician fee schedule amount for covered professional services in CY 2015. EPs who are unable to satisfy any of the PQRS reporting
requirements for this program in CY 2013 will be penalized in 2015. More information on the finalized PQRS reporting options is available in the 2013 Medicare physician fee schedule final rule found at http://www.ofr.gov/OFRUpload/OFRData/2012-26900_PI.pdf.

Note that EPs may still qualify to receive incentive payments for successfully participating in the PQRS program in CY 2013 and 2014. EPs who satisfy the requirements may be eligible to receive an incentive payment of 0.5 percent of their total Medicare allowed charges in CY 2013 and a 0.5 percent bonus in CY 2014 if they continue to satisfy the PQRS requirements.

What is the penalty for not participating in the Medicare EHR Incentive Program?
EPs who choose not to participate in the EHR Incentive Program will be assessed a penalty of 1 percent of their total Medicare allowed charges in CY 2013 and a 0.5 percent penalty in CY 2014.

How will the bonuses and penalties affect my bottom line?
Each bonus payment is added to an EPs Medicare Part B fee schedule payment amount. For example, if an EP is eligible for bonus payments for all three programs in CY 2012 and has 3, 2014, and attesting as such no later than October 1, 2014. To avoid the 2015 EHR penalty, EPs who have already achieved their first year of meaningful use must complete their full calendar year reporting in 2013. Note that EPs may still receive incentive payments for the Medicare EHR Incentive Program if they successfully meet the meaningful use requirements and complete their attestation to CMS by the specified date. EPs who began reporting Stage 1 requirements in CY 2011 or 2012 will be eligible for a full incentive payment of $44,000. EPs who begin reporting Stage 1 requirements in 2013 will be eligible to receive $39,000, and EPs who begin reporting in 2014 may qualify for a bonus of up to $24,000.

### HARDSHIP EXEMPTIONS AVAILABLE FOR 2014*

- Inability to electronically prescribe due to state or federal law, or local law or regulation
- The EP prescribes fewer than 100 prescriptions during a six-month payment adjustment reporting period
- The EP practices in a rural area without sufficient high-speed Internet access (G8642)
- The EP practices in an area without sufficient available pharmacies for electronic prescribing (G8643)

*Some additional hardship exemptions were finalized after the final publication of the 2013 Fee Schedule. Any new information on these exemptions will be published in a future issue of the Bulletin.
$100,000 in Medicare allowed charges, the EP would be eligible for a $18,500 bonus—a $500 bonus for the PQRS program, and an $18,000 bonus for the EHR Incentive Program—if the EP began participating in the EHR Incentive Program in 2012. An EP is also required to participate in the eRx program in order to avoid a penalty in 2014 by meeting the criteria required to gain an incentive payment, minimally report to avoid the penalty, or claim an exemption. However, if an EP is eligible to receive the Medicare EHR incentive bonus, he or she is not eligible to receive the eRx bonus. Therefore, an EP who successfully participates in the PQRS, EHR, and eRx programs in the scenario described above could expect a total of $18,500 between the EHR and PQRS incentives. Successful compliance with the eRx program requirements will result in the avoidance of future eRx program penalties. Note that each program has a different distribution period for the payout. Therefore, an EP may not receive the incentive payments at the same time.

Likewise, penalties are applied to an EP’s Medicare Part B fee schedule services. The last payment penalty for the eRx Incentive Program will be assessed in 2014, a year before the PQRS and EHR penalties begin. Hence, if an EP has $100,000 in Medicare allowable charges and is assessed an eRx penalty in 2014, the provider will see a reduction of $2,000. Additionally, if an EP has $100,000 in Medicare allowed charges and is unsuccessful in meeting PQRS and EHR requirements and is assessed the 2015 penalties for both programs, total Medicare Part B payments will be reduced $2,500 due to a $1,500 penalty for the PQRS program and a $1,000 penalty for the EHR Incentive Program. (Note that each program has a different timeframe for assessment of the penalty.)

What resources are available to assist with enrollment and participation in each program?


The ACS is a professional partner of AmericanEHR Partners, which provides information on various EHR vendor ratings, podcasts that offer an overview of various components of the program, proposals from various vendors, disseminates e-newsletters, and more. To register with AmericanEHR, go to www.americanehr.com/Home.aspx.

### TABLE 2. ERX MEASURE DENOMINATOR CODES (ELIGIBLE CASES)

<table>
<thead>
<tr>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>90801, 90802, 90804, 90805, 90806, 90807, 90808, 90809, 90862, 92002, 92004, 92012, 92014, 96150, 96151, 96152, 99201, 99202, 99203, 99204, 99205, 99211, 99212, 99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99315, 99316, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, G0101, G0108, G0109</td>
</tr>
</tbody>
</table>

V97 No 12 BULLETIN American College of Surgeons
The Centers for Medicare & Medicaid Services (CMS) has continued the Physician Quality Reporting System (PQRS) into 2013 as required under the Medicare Improvements for Patients and Providers Act of 2008. PQRS is the first CMS-crafted national program to link the reporting of quality data to physician payment. The Affordable Care Act authorized incentive payments for eligible professionals (EPs) who successfully participate in the program through 2014.

The incentive payment for the 2013 reporting year is 0.5 percent of the total allowed charges for Medicare Part B professional services covered under the physician fee schedule and furnished during the reporting period.

For reporting year 2014, EPs may earn an incentive payment of 0.5 percent of their total estimated allowed charges for Medicare Part B physician fee schedule-covered professional services furnished during the respective reporting periods. If EPs are unsuccessful PQRS participants in 2013, they will be subject to a penalty in 2015. Table 1 on page 176 summarizes the payments during these years.

What are some of the differences between the requirements in the 2012 PQRS and the 2013 PQRS?

CMS released the Medicare physician fee schedule final rule for calendar year (CY) 2013 on November 1, 2012. In the final rule, CMS finalized several changes to the PQRS for 2013. Major program changes are highlighted in Table 2 on page 176.

It is important to note that the 2013 PQRS includes 259 quality measures (individual measures) and 22 measures that are part of a 2013 measures group. Whereas 2012 PQRS quality measures may be continued in the 2013 PQRS, measure specifications may have been updated for the new program year. Surgeons who are currently reporting in 2012 PQRS should review the 2013 PQRS Measure Specifications Manual for Claims and Registry Reporting of Individual Measures for updates and changes. Surgeons can also visit the American College of Surgeons (ACS) PQRS website for more information on the program: http://www.facs.org/ahp/pqrs/.

How do I use the measure specifications manual?

The 2013 PQRS Measure Specifications Manual for Claims and Registry Reporting of Individual Measures should be used to identify measures applicable for professional services that a practice routinely provides. The manual can be accessed at www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/MeasuresCodes.html. Next, select those measures that make sense based upon prevalence and volume in the practice, as well as your individual or practice performance analysis and improvement priorities.
TABLE 1.
PQRS PAYMENT INCENTIVES AND PENALTIES

<table>
<thead>
<tr>
<th>REPORTING YEAR</th>
<th>INCENTIVE</th>
<th>PENALTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>0.50%</td>
<td>-</td>
</tr>
<tr>
<td>2014</td>
<td>0.50%</td>
<td>-</td>
</tr>
<tr>
<td>2015</td>
<td>-</td>
<td>1.50%</td>
</tr>
<tr>
<td>2016 and beyond</td>
<td>-</td>
<td>2.00%</td>
</tr>
</tbody>
</table>

TABLE 2.
2013 PQRS CHANGES

<table>
<thead>
<tr>
<th>2012 PQRS</th>
<th>2013 PQRS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMS sought to eliminate the distinction between group practice reporting</td>
<td>CMS finalized its proposal to define a group practice as one having a</td>
</tr>
<tr>
<td>option (GPRO) GPRO I and GPRO II for group practices. The two groups will</td>
<td>single tax identification number (TIN), with two or more EPs as identified</td>
</tr>
<tr>
<td>instead be consolidated such that a group practice GPRO will consist of 25</td>
<td>by their individual national provider identification number who have</td>
</tr>
<tr>
<td>or more eligible professionals.</td>
<td>reassigned their Medicare billing rights to the TIN.</td>
</tr>
<tr>
<td>CMS required a minimum patient sample of 30 Medicare patients for</td>
<td>CMS required a minimum patient threshold of 20 patients for reporting</td>
</tr>
<tr>
<td>reporting measure groups via registry and claims.</td>
<td>measure groups via registry only, 11 of the 20-patient threshold must be</td>
</tr>
<tr>
<td></td>
<td>Medicare beneficiaries, and the rest can be non-Medicare.</td>
</tr>
<tr>
<td>CMS finalized the claims, registry, electronic health records (EHR),</td>
<td>In addition to retaining the 2012 methods to earn the 2013 PQRS incentive,</td>
</tr>
<tr>
<td>and GPRO methods to earn the 2012 PQRS incentive.</td>
<td>CMS also finalized two additional methods that will help EPs avoid the</td>
</tr>
<tr>
<td></td>
<td>2015 PQRS penalty. These two additional methods include the administrative</td>
</tr>
<tr>
<td></td>
<td>claims reporting option and reporting on one measure or measures group.</td>
</tr>
</tbody>
</table>

TABLE 3.
2013 REPORTING OPTIONS TO AVOID 2015 PQRS PENALTY BUT NOT RECEIVE 2013 INCENTIVE

<table>
<thead>
<tr>
<th>Administrative claims reporting option</th>
<th>Under this option, CMS will analyze each EP’s or group practice’s Medicare claims to determine whether the EP or group has performed any of the clinical quality actions indicated in a specific set of measures.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative reporting option</td>
<td>In this method, required data submission must be for at least one applicable patient using any of the available methods (claims, EHR, or registry).</td>
</tr>
</tbody>
</table>

How do I report PQRS measures?

There are a number of ways that EPs can report in PQRS 2013 in order to receive an incentive payment and/or avoid the 2015 payment penalty. A matrix that lists all six options for reporting under PQRS 2013 is available at http://www.facs.org/ahp/pqri/2013/reporting-options-chart.pdf. Moreover, the 2013 physician fee schedule also finalized two methods by which EPs can simply avoid the 2015 PQRS penalty without receiving an incentive payment for PQRS 2013. The two methods are outlined in Table 3 on this page.

These two options are currently only available for 2013 and are intended for practices that may be overwhelmed with attempting to comply with other reporting programs. Successful PQRS compliance will still be required after 2013, and it is possible that CMS may finalize other reporting methods in future rulemaking.

The ACS has developed useful PQRS resources for surgeons, including the 2013 PQRS flow sheets for claims-based reporting. The flow sheets are categorized by procedure codes relating to various surgical procedures for the perioperative measures set. The perioperative measures set includes measures #20, #21, #22, and #23. This flow sheet provides...
the corresponding current procedural terminology II code that should be used on the Claims 1500 form as shown in the figure on this page. The flow sheets should be used as a reference only and should not be submitted to CMS. The flow sheets are available at www.facs.org/ahp/pqri/. Additional background information regarding the PQRS program can be found on the following websites: www.cms.hhs.gov/pqrs/ and www.facs.org/ahp/pqri/index.html. If you have questions regarding PQRS, contact Sana Gokak in the ACS Division of Advocacy and Health Policy at sgokak@facs.org.
What surgeons should know about...

Participating in the Medicare eRx Incentive Program

by Sana Gokak, MPH

The deadline to file for a hardship exemption from the 2013 Electronic Prescribing (eRx) Incentive Program has passed, and by now surgeons should be thinking about the requirements for the next few years. The Centers for Medicare & Medicaid Services’ (CMS) eRx Incentive Program was authorized by the Medicare Improvements for Patients and Providers Act of 2008. CMS defines e-prescribing as “the ability to electronically send an accurate, error-free, and understandable prescription directly to a pharmacy from the point-of-care.”* Eligible professionals (EPs) who successfully e-prescribe in 2012 can qualify for an incentive payment of 1 percent. The program is currently set to expire in 2015. This article addresses questions surgeons may have regarding remaining incentives and penalties for 2012–2014. (See Table 1 on this page for an overview of the eRx incentives and penalties remaining for 2012–2014.)

What are the incentives and penalties under the eRx program?

Table 2 on page 179 shows both the incentives and penalties for each year starting from 2012.

Do I still have time to qualify for the 2012 eRx bonus?

Yes, EPs can still qualify for the 2012 eRx payment incentive of 1 percent. To qualify, EPs must report electronically 25 times from January 1 to December 31, 2012, for denominator eligible visits (see Table 3 on page 179 for the eligible denominator codes). Denominator eligible codes are composed of evaluation and management codes.

Is it too late now to avoid the 2013 eRx penalty for nonparticipation?

Yes, it is too late for health care professionals to avoid the 2013 eRx payment penalty of 1.5 percent of the Medicare Part B physician fee schedule. Table 2 on page 179 shows that the deadline to avoid the 2013 eRx penalty has passed.

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Table 1.
Overview of the eRx incentives and penalties for 2012 through 2014

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receive incentive</td>
<td>Report 25 denominator eligible prescriptions from January 1 to December 31, 2012, to receive incentive payment of 1.0% on Medicare Part B payment</td>
<td>Report 25 denominator eligible prescriptions from January 1, to December 31, 2013, to receive incentive payment of 0.5% on Medicare Part B payment</td>
<td>No incentive payment in place after 2013</td>
</tr>
<tr>
<td>Avoid penalty</td>
<td>Deadline to avoid the 2012 payment penalty has passed</td>
<td>Deadline to avoid the 2013 payment penalty has passed</td>
<td>1. Report electronically 25 times for denominator eligible visits from January 1 to December 31, 2012, or</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Report on any 10 electronic prescriptions from January 1 to June 30, 2013, or</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Apply for a significant hardship exemption by June 30, 2013, or</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4. Be automatically exempt</td>
</tr>
</tbody>
</table>

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VOLUME 97, NUMBER 8, BULLETIN OF THE AMERICAN COLLEGE OF SURGEONS
amount for covered professional services if they did not do one of the following:

• Report prescriptions electronically 25 times from January 1 to December 31, 2011, for denominator eligible visits.

• Report prescriptions electronically 10 times from January 1 to June 30, 2012, for any visit (which does not have to be associated with a denominator eligible code but was submitted in conjunction with a billable, covered procedure not associated with a global period).

• Apply for a significant hardship exemption to avoid the 2013 eRx penalty on the CMS website by June 30, 2012, and receive CMS approval (it may take close to 30 days after application for the exemption for CMS to notify EPs regarding approval). See Table 4, page 180, for a list of the 2013 and 2014 significant hardship exemptions.

• Qualify for an automatic exemption from the eRx Incentive Program. EPs will be automatically exempt from the 2013 eRx Incentive Program penalty if they meet any one of the following criteria:

  — The EP was a successful electronic prescriber during the 2011 eRx 12-month reporting period of January 1 to December 31, 2011

  — The EP is not a MD, doctor of osteopathic medicine (DO), podiatrist, nurse practitioner, or physician assistant by June 30, 2012

  — The EP does not have at least 100 Medicare Part B physician fee schedule cases containing denominator eligible codes (listed in Table 3) for dates of service from January 1 to June 30, 2012

  — At least 10 percent or more of the EP’s Medicare Part B physician fee schedule charges are not from denominator eligible codes (listed in Table 3) for dates of service from January 1 to June 30, 2012

  — The EP does not have prescribing privileges and reported G8644 on a billable Medicare Part B service at least once on a claim between January 1 and June 30, 2012

What should I do to avoid the 2014 eRx payment penalty?

To avoid the 2014 eRx payment penalty of 2 percent of the Medicare Part B physician fee schedule amount for covered professional services, health care professionals must do one of the following:

• Report electronically 25 times for denominator eligible visits from January 1 to December 31, 2012.

• Report electronically at least 10 times from January 1 to June 30, 2013, for any visit (does not have to be associated with a denominator eligible code but must be submitted in conjunction with a billable, covered procedure not associated with a global period).

• Apply for a significant hardship exemption by June 30, 2013, once the portal opens in early 2013. See Table 4, page 180, for a list of the 2014 significant hardship exemptions.

Table 2. Incentives and penalties for eRx

<table>
<thead>
<tr>
<th>Year</th>
<th>Incentive</th>
<th>Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>1.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>2013</td>
<td>0.5</td>
<td>1.5</td>
</tr>
<tr>
<td>2014</td>
<td>N/A</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Table 3. eRx measure denominator codes (eligible cases)

<table>
<thead>
<tr>
<th>Code 1</th>
<th>Code 2</th>
<th>Code 3</th>
<th>Code 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>90801</td>
<td>90802</td>
<td>90804</td>
<td>90805</td>
</tr>
<tr>
<td>90806</td>
<td>90807</td>
<td>90808</td>
<td>90809</td>
</tr>
<tr>
<td>90862</td>
<td>902002</td>
<td>92004</td>
<td>92012</td>
</tr>
<tr>
<td>92014</td>
<td>96150</td>
<td>96151</td>
<td>96152</td>
</tr>
<tr>
<td>99201</td>
<td>99202</td>
<td>99203</td>
<td>99204</td>
</tr>
</tbody>
</table>

99205, 99211, 99212, 99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99315, 99316, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99346, 99347, 99348, 99349, 99350, G0101, G0108, G0109
Be automatically exempt from the eRx Incentive Program. EPs will be automatically exempt from the 2014 eRx Incentive Program penalty if they meet any one of the following:

— The EP is a successful electronic prescriber during the 2012 eRx 12-month reporting period of January 1 to December 31, 2012

— The EP is not a MD, DO, podiatrist, nurse practitioner, or physician assistant by June 30, 2013

— The EP does not have at least 100 Medicare Part B physician fee schedule cases containing denominator eligible codes (listed in Table 3) for dates of service from January 1 to June 30, 2013

— At least 10 percent or more of the EP’s Medicare Part B physician fee schedule charges are not from denominator eligible codes (listed in Table 3) for dates of service from January 1 to June 30, 2013

— The EP does not have prescribing privileges and reported G8644 on a billable Medicare Part B service at least once on a claim between January 1 to June 30, 2013

For more information on the eRx Incentive Program, continue to check the American College of Surgeons website at [http://www.facs.org/ahp/erx.html](http://www.facs.org/ahp/erx.html) or the CMS eRx website at [https://www.cms.gov/ERxIncentive/](https://www.cms.gov/ERxIncentive/). For more information on payment penalties, visit the following CMS Web page: [http://www.cms.gov/ERxIncentive/20_Payment_Adjustment_Information.asp](http://www.cms.gov/ERxIncentive/20_Payment_Adjustment_Information.asp).

If you have any questions, contact Sana Gokak, ACS Division of Advocacy and Health Policy, at 202-337-2701 or sgokak@facs.org. You may also contact the CMS eRx help desk at 866-288-8912.

Ms. Gokak is Quality Associate, Regulatory Affairs, Division of Advocacy and Health Policy, Washington, DC.
Electronic Health Records
Health information technology,
meaningful use criteria,
and their effects on surgeons

by James Friedman;
Ian Metzler;
Don Detmer, MD, FACS;
Don Selzer, MD, FACS;
and John G. Meara, MD, DMD, FACS
In the face of rising costs, inconsistent quality, and the recent economic decline, strategies aimed at creating a more efficient health care system now rank among the most contested political issues in the U.S. As evidenced by the attention given to health information technology (HIT) in the Health Information Technology for Economic and Clinical Health (HITECH) Act, which was incorporated into the American Recovery and Reinvestment Act of 2009 and the Affordable Care Act of 2010, HIT has become an important component of the federal government’s attempts to reduce health care costs while increasing quality of care.

Creation of an oversight committee, the release of stimulus funding, and the offer of financial inducements to move to computer-based reporting (with financial penalties for noncompliance to follow) have provided an incentive for more physicians to adopt and use HIT. The government has set a goal of universal electronic health record (EHR) adoption before 2015.1-4 These incentive programs, which will affect all U.S. physicians, have raised great concern among surgeons due to their complexity and perceived preferential treatment of primary care physicians.5,6 Government recognition of these issues has allowed specialty groups to voice their concerns with the goal of ultimately editing incentive program criteria to be more inclusive of other specialties.

The Stage 1 final rule was implemented in 2011 and calls for adherence to 15 core set objectives, five out of 10 menu set objectives, and six clinical quality measures. The proposed Stage 2 rule was released for comment in February 2012 with the intent of increasing the core objectives to 17, three out of five menu set objectives, and 12 clinical quality measures. Numerous organizations representing the entire spectrum of health care responded with comments for the May 7 deadline.

Stage 3, the final stage, will clearly be the first major opportunity for surgeons to see how HIT can be applied to surgical care, given that Stages 1 and 2 have largely focused on getting the infrastructure in place. Because the criteria are still evolving based on physician feedback, it is important at this time for surgeons to learn how HIT and HIT-related legislation affects surgical practice and the current issues that need be addressed in the most recent round of proposed regulations. Furthermore, with the American Board of Medical Specialties adopting a new sub-certificate in clinical informatics, the surgical profession will need to develop a cadre of well-trained surgical “informatics” to help ensure that the continued development of HIT meets the unique needs of surgical practice.

Defining HIT

HIT is a broad term encompassing any fusion of electronic information processing with medicine. In the U.S., communication technology is subsumed within HIT, whereas internationally the acronym HICT is used to signify the importance of communication as well as information. Another key term is “biomedical and health informatics,” which is used to describe the science of information use in health care delivery, research, and public health. Some consider HIT to be focused on the technology whereas informatics is focused on technology’s proper use in order to achieve desired goals. Both are essential concepts.

Additional features of HIT and robust EHRs include decision support for clinicians and patients, electronic reminders, telemedicine, secure electronic health communication, knowledge retrieval systems, and data exchange networks. (See Table 1 on page 184.)7-9, 10

Data exchange networks are secure data warehouses of predetermined clinical information from numerous hospitals and clinical settings. These systems allow clinicians to retrieve patient data across the continuum of care, even when it is from outside of the clinician’s hospital network.

The Indiana Network for Patient Care (INPC) is one such data exchange. Created in 1994 with funding from the National Institutes of Health and the National Library of Medicine, it merges data from five major Indianapolis, IN, hospital systems, including 11 hospitals and 100 geographically distinct clinics and ambulatory surgery centers. All INPC participants submit a range of medical information to a separate EHR vault in a central INPC server. Now, for example, when a patient is seen in any of the INPC emergency departments, information from all five networks may be viewed in one consolidated virtual medical record.11

HIT’s effect on surgical practice

In 2011, the U.S. Centers for Disease Control and Prevention (CDC) reported that only 57 percent of physicians were using an EHR, with physicians at small and rural hospitals less likely to use any type of HIT.8,9 In the face of the slow rate of adoption, it
is important that physicians understand how their practice may benefit from HIT implementation (see Table 2, this page). Although most evidence concerning HIT has focused on large hospitals or primary care groups, the same benefits likely apply to surgical practice as well.

Nonetheless, implementation may be a stressful process initially, depending on the product implemented as well as how much training is provided beforehand. Evaluation data from AmericanEHR Partners show that if fewer than three days are spent in training before EHR implementation, successful use and/or subsequent satisfaction is negatively affected. It is safe to say that EHRs and their use are not fixed but dynamic, and improvements in both safety and functionality can be expected. Challenges

<p>| Table 1. Common examples of HIT |</p>
<table>
<thead>
<tr>
<th>Type</th>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic health records/electronic medical records</td>
<td>EHR/EMR</td>
<td>In its most basic form, a computer-based medical record allows storage, organization, and retrieval of patient medical data; other possible functions include decision-support and quality/safety and patient interaction</td>
</tr>
<tr>
<td>Clinical decision support</td>
<td>CDS</td>
<td>Software that uses patient health information to recommend treatment options to the physician</td>
</tr>
<tr>
<td>Computerized physician order entry</td>
<td>CPOE</td>
<td>Software that allows clinicians to enter patient orders electronically</td>
</tr>
<tr>
<td>Picture archiving and communications system</td>
<td>PACS</td>
<td>Stores and integrates multiple types of radiological images</td>
</tr>
<tr>
<td>Medication dispensing robot</td>
<td>ROBOT</td>
<td>Robots that deliver and dispense physician-ordered medications to correct patient areas</td>
</tr>
<tr>
<td>Automated dispensing machines</td>
<td>ADM</td>
<td>A computerized drug storage device that allows medication tracking and dispersal near the point of care</td>
</tr>
<tr>
<td>Electronic medication administration records</td>
<td>EMAR</td>
<td>Electronic legal record of all medications dispensed to a patient</td>
</tr>
<tr>
<td>Bar coding at medication administration</td>
<td>BARA</td>
<td>Medications are assigned bar codes for checking and tracking purposes</td>
</tr>
<tr>
<td>Bar coding at medical dispensing</td>
<td>BARD</td>
<td>Medications are confirmed by bar code before dispensing</td>
</tr>
<tr>
<td>Personal health record</td>
<td>PHR</td>
<td>Most commonly today, patient access to their EHR or portions of it occur through a secure patient portal</td>
</tr>
</tbody>
</table>

<p>| Table 2. Benefits of HIT implementation |</p>
<table>
<thead>
<tr>
<th>Benefits</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher practice efficiency</td>
<td>• Reduces employee workload in the VA&lt;br&gt;• Saves time with pre-stored patient demographic information and history</td>
</tr>
<tr>
<td>Better patient outcomes</td>
<td>• Increases medical guideline and protocol adherence&lt;br&gt;• Can help identify occurrence patterns such as adverse drug event frequency&lt;br&gt;• Reduces average inpatient stay&lt;br&gt;• CPOE reduced medication dosing errors by 12-55%&lt;br&gt;• CDS use reduced unnecessary admissions, increased mood disorder screening, and decreased time to diagnosis</td>
</tr>
<tr>
<td>Reduced overhead costs</td>
<td>• Saved more than $3 billion in the VA system between 1997 and 2007, including costs of installation and training</td>
</tr>
</tbody>
</table>
remain; in particular, insufficient interoperability between systems remains a persistent problem, among others.

**HIT legislation**

The evidence shows that proper HIT use may increase consistency and quality of care, while reducing health care costs and medical staff workload. As a result, Congress has passed multiple bills to incentivize physicians to adopt HIT, including the following:

**Medicare Improvements for Patients and Providers Act of 2008.** This act included the Electronic Prescribing (eRx) Incentive Program that created an annual financial incentive to encourage physicians to e-prescribe with any system that allowed the generation of a medicine list, the provision of alternative medications, authorization requirements, and a printed or electronic submission of each prescription.

**American Recovery and Reinvestment Act (ARRA) of 2009.** This act included the HITECH Act, establishing a $19.2 billion program to meet goals of increased EHR use by 2014 through the reduction of barriers to EHR installation and implementation.

The legislation also established Medicare and Medicaid EHR Incentive Programs to aid and financially incentivize physicians to incorporate HIT services before 2015 (see Table 3, this page). These programs focus primarily on increasing use of EHRs, CPOE, and CDS. Penalties begin to kick in if approved EHRs are not implemented within the program’s prescribed timeline.

**The Affordable Care Act (ACA) of 2010.** This law requires the development of standards and protocols intended to make data protection and patient education about health care options easier. Important examples include setting quality reporting requirements, grants for community-based collaborative care networks, grants for technical assistance, grants for EHR purchase, and bonus payments for physicians meeting Medicare HIT guidelines. The law also requires the Agency for Healthcare Research and Quality to expand HIT adoption and use.

The rewards and penalties associated with each program are listed in Table 3.

---

### Table 3.

<table>
<thead>
<tr>
<th>Federal HIT implementation incentive programs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rewards</strong></td>
</tr>
<tr>
<td>eRx Incentive Program</td>
</tr>
<tr>
<td>In 2012, physicians who meet requirements will receive a 1% Medicare bonus payment.</td>
</tr>
<tr>
<td>Medicare* EHR Incentive Program</td>
</tr>
<tr>
<td>Each year from 2011 through 2015, physicians meeting eligibility requirements receive a financial sum that decreases each year. Physicians may receive a maximum of $44,000 over five years if they meet the first-year requirements in 2012. Hospital systems meeting eligibility requirements may receive a $2 million bonus, as well as a bonus on the Medicare fee until 2016. Additional bonuses apply to services provided in health-professional shortage areas.</td>
</tr>
<tr>
<td>Medicaid* EHR Incentive Program</td>
</tr>
<tr>
<td>Medicaid offers higher payments each year, totaling up to $63,750 over six years if physicians meet requirements by 2012. For hospital systems, the Medicaid program also includes a $2 million base payment.</td>
</tr>
<tr>
<td><strong>Penalties</strong></td>
</tr>
<tr>
<td>eRx Incentive Program</td>
</tr>
<tr>
<td>In 2012, physicians not meeting requirements will lose 1% of their Medicare payment.</td>
</tr>
<tr>
<td>Medicare EHR Incentive Program</td>
</tr>
<tr>
<td>Surgeons or hospitals that have not incorporated EHR by 2013 risk losing 1% of Medicare fees in 2015, which increase by 1% annually through 2017. This does not apply to entities that have opted for Medicaid reimbursement.</td>
</tr>
<tr>
<td>Medicaid EHR Incentive Program</td>
</tr>
<tr>
<td>There are currently no penalties under the Medicaid plan.</td>
</tr>
</tbody>
</table>

*Physicians and hospital systems may receive benefits and penalties from either Medicare or Medicaid, but not both.†Physicians and hospital systems enrolled in Medicare that elect to participate in the Medicaid EHR Incentive Program yet fail to meet the Medicaid EHR program requirements will still be subject to the Medicare EHR Incentive Program penalty; likewise, the Medicaid EHR Incentive Program does not require participants to meet the meaningful use requirements in their first year of participation. Rather, participants must only demonstrate that they have “adopted, implemented, or upgraded a certified EHR.” However, because the law pertaining to the Medicare program requires participants to achieve meaningful use to avoid the Medicare penalty, Medicare has proposed to apply the penalty even to those participants who meet the year-one criteria for the Medicaid program. The College vigorously opposes this proposal.
Eligibility requirements
To qualify for the eRx incentive payment, physicians must be able to electronically prescribe. Information regarding incentives can be found at http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment- Instruments/ERxIncentive/index.html?redirect=/ERXIncentive.

All physicians and hospitals are eligible to register for HIT implementation benefits with Medicare. Physicians only can register with Medicaid if more than 30 percent of their patients are Medicaid enrollees and the program is offered in their state.14 To qualify for financial incentives under either program, physicians and hospitals must demonstrate meaningful use (MU) of a certified EHR platform.14 In the first year of participation in the Medicaid version of the program, physicians and hospitals must only demonstrate that they have “adopted, implemented, or upgraded a certified EHR.”22 Further instructions and details for the Medicaid plan can be found at the CMS website: www.cms.gov/EHRIncentivePrograms.

Certified EHR and MU are defined as follows:

Certified EHR: EHR technology that has been tested and certified by Office of the National Coordinator.2 A list of certified EHR platforms is available at http://onc-chpl.force.com/ehrcert. EHR systems, in combination with other HIT platforms, may be purchased separately or integrated with a choice of local or Web-based data storage. There is no evidence of a cost benefit when adopting a single integrated platform or multiple stand-alone platforms.1

MU: Physicians must report annually that they are successfully using EHR to qualify for financial incentives. MU criteria define what needs be reported to prove successful application of HIT. The current MU criteria, known as Stage 1, focus on basic HIT implementation including data capture, assistance in clinical decision making, and using stored data to track certain clinical conditions. Stage 2 and Stage 3 criteria will be introduced sequentially and will expand on Stage 1, increasing criteria requirements and patient self-management tools, and will add focus to overall population health and HIT data sharing.4 After each MU stage is passed, physicians must update how they report to reflect the current stage. Each MU stage comprises three lists of objectives. To meet MU in Stage 1, physicians must annually meet all 15 Core Set Objectives (see Table 4, this page), five of 10 Menu Set objectives (see Table 5, page 187), and details for the Medicaid plan can be found at the CMS website: www.cms.gov/EHRIncentivePrograms/Downloads/EP-MU-TOC.pdf.

Table 4.
Stage 1 Core set objectives (all 15 are required)

| 1. Use CPOE to enter medication orders for >30% of patients followed with EHR. Any physician who writes <100 prescriptions a year is excluded. |
| 2. Use drug-drug and drug-allergy interaction checklists. |
| 3. Maintain up-to-date problem list of current and active diagnoses for >80% of patients. |
| 4. Preserve permissible medications electronically for >40% of prescriptions. Any physician who writes <100 prescriptions a year is excluded. Non-permissible medications are listed here: http://www.deadiversion.usdoj.gov/schedules/orangebook/e_cs_sched.pdf. |
| 5. Maintain active medication list for >80% of patients, including patients with no medication. |
| 6. Maintain medication allergy list for >80% of patients, including patients with no known allergies. |
| 7. Record preferred language, gender, race, ethnicity, date of birth for >50% of patients. |
| 8. Record height, weight, blood pressure, body mass index (BMI), and record and chart growth, BMI for children 2–20 years old for >50% of patients >2 years old. Physicians who do not treat patients >2 years, and physicians who believe height, weight, and blood pressure have no relevance to their practice are exempt. |
| 9. Record smoking status for patients >13 years old for >50% of patients. |
| 10. Report ambulatory clinical quality measures to CMS, or if a Medicaid physician, the states for all patients with EHRs. Requirements and electronic specifications are listed here: http://www.cms.gov/QualityMeasures/03_ElectronicSpecifications.asp#TopOfPage. |
| 11. Implement one clinical decision support rule other than drug-drug and drug-allergy interaction checklists relevant to specialty along with ability to track compliance. Clinical decision support is any addition to EHR that provides physician with case or person-specific information. |
| 12. Provide >50% of patients who request it, an electronic copy of their health information (diagnostic test results, problem list, medication list, medication allergies) within three business days. |
| 13. Provide clinical summaries to >50% of patients within three business days of each office visit. |
| 14. Capabilities to electronically exchange clinical data (for example, problem list, medication list, allergies, test results) with other providers or entities. An unsuccessful test of electronic exchange is considered valid for this objective. |
| 15. Protect electronic health information. EHR must have certified data protection, and the system must be updated as needed. |

Table 5.  
Menu set objectives (5 of 10 are required)

1. Implement drug formulary checks. Physician must have access to ≥ 1 internal or external formulary. Any physician who writes <100 prescriptions a year is excluded.

2. Incorporate >40% clinical lab-test results into EHR. Physicians who order no lab tests or whose results are not positive/negative or numeric are exempt.

3. Generate at least one list of patients maintained by EHR by specific conditions for quality improvement, disparity reduction, research, or outreach.

4. Send patient reminders to >20% of patients >65 years old or <5 years old per patient preference for preventative/follow-up care. Physicians with no EHR patients meeting the age criteria are exempt.

5. Provide >10% of patients electronic access to health information (lab results, problem lists, medication lists, allergies) within four business days of the information being available to the physician.

6. Use EHR technology to identify and provide >10% of patients patient-specific education resources.

7. Perform medication reconciliation by comparing medical record to an external medical list for >50% of patients transferred from another setting.

8. Provide a summary care record for >50% of patients transferred or referred to another setting.

9. At least one test of capability to submit electronic data to immunization registries and actual submissions is required. Exempt if no immunizations given or if no immunization electronic registry exists.

10. At least one test of EHR technology capacity to provide electronic syndromic surveillance data to public health agencies, and actual submissions according to law.


Table 6.  
Clinical quality measures (required only if applicable to the practice)

1. Blood pressure level, smoking status, and adult weight screening with follow-up must be reported for each patient.

2. Any clinical quality measures not applicable to the practice can be replaced with the following: influenza vaccination in patients >50 years old, child weight assessment and counseling, or childhood immunizations.

3. An additional three measurements must be reported from a list of 38 possible measurements listed at the CMS website.

and, if applicable, keep track of up to six clinical quality measures (see Table 6, this page).15,23

Obstacles and concerns

Since the release of the Stage 1 MU criteria, surgeons have raised several concerns. One issue centers on the fact that MU criteria related to patient information collection are too specific to primary care, making them difficult for surgeons to meet. The American College of Surgeons (ACS) is currently pushing to make criterion exceptions for specialists to prevent surgeons from being forced to track patient data that are irrelevant to their practice. The ACS also is advocating surgical registry participation through HIT as an optional criterion. This change would effectively provide another non-required, surgeon-friendly option that could replace any other requirement.24,25

Another concern is that required participation in quality improvement programs may slow HIT adoption, as practices may need to make major changes in management techniques. The ACS advocates that involvement in quality improvement programs, although important, should be optional so as to increase rate of HIT implementation.5,6

The proposed expansion of MU criteria in Stage 2 requirements has also sparked concern. The ACS maintains that the new requirements are too aggressive and may be too difficult for many surgeons to meet. The proposal also includes troubling provisions, such as applying the Medicare penalty to the physicians and hospitals that have met the first year requirements of the Medicaid Incentive Program, and the large time gap between the year that the Medicare EHR penalty is applied and the year in which CMS assesses whether the physician has met the program requirements.26

Ongoing advocacy for surgeons is especially important as the MU criteria are expected to evolve over the next few years to correct problems and inequalities. The next generation of MU criteria, known as Stage 2, is slated to take effect in 2013 and will become mandatory in 2014 for physicians and hospitals that have already completed at least one year of the EHR incentive program under Stage 1. These proposed changes were available for public commentary until May 7, 2012.27 Many of the proposed changes, if they become effective, will directly affect surgical specialties. For example: (1) lab and radiology orders will count towards CPOE use, making the core set objective 1 more applicable to surgeon practice; (2) recording more than 50 percent of advanced direc-
tive discussions will be mandatory, potentially affecting how surgeons, patients, and patient primary care physicians coordinate care; (3) sending reminders to at least 10 percent of all unique patients for follow-up will become a core requirement, potentially altering how surgeons interact with patients; and (4) providing accessible lists of all members of a patient’s care team will be mandatory, which may affect surgeons working in institutions, such as academic centers, that have large, rotating teams.27

Although some of these changes do respond to the College’s concerns, they by no means cover all issues, and may in fact produce new ones. Therefore, the ACS will continue to advocate for surgeon-friendly criteria. Furthermore, as more surgeons implement HIT, it is important that they report the issues they encounter to the ACS, so that the College can identify new, pertinent issues and help shape future incentive requirements to be more relevant to surgical practice.

Conclusion
Recent federal legislative efforts are slowly bringing American medicine to levels of HIT implementation seen in other economically developed nations. It is vital that surgeons remain actively involved in reporting concerns about MU criteria. By engaging in this challenge directly, surgeons will help themselves and their patients to ensure that MU is “meaningfully useful” to surgeons and all the other key stakeholders.

References
8. Furukawa MF, Raghu TS, Spaulding TJ, Vinze A. Adoption of health information technology for medication safety in U.S.


The Health Information Technology for Economic and Clinical Health (HITECH) Act, part of the American Recovery and Reinvestment Act of 2009 (ARRA), authorizes the U.S. Department of Health and Human Services to provide financial incentives to eligible health professionals (EPs) and hospitals that “meaningfully use” EHR technology. In 2010, CMS published the final rule that physicians must follow to obtain the criteria for Stage 1 of the incentive payments. Subsequently, in late August, CMS released the final rule for Stage 2 of the program that also contains modifications to Stage 1. The penalties take effect in 2015. Why should I get on board now?

Incentive payments began in calendar year 2011 and are scheduled for implementation as follows:

- EPs that began meeting the Stage 1 meaningful use requirement in 2011 or 2012 are eligible to receive the maximum incentive payment amount of $44,000 over a period of five years
- If they begin in 2013, EPs will be able to earn a total incentive payment of $39,000 over a period of four years
- EPs will receive a total incentive payment of $24,000, if they begin in 2014, over a period of three years
- No incentives are scheduled to be available to EPs who become meaningful users beginning in 2015 and beyond.

What are the requirements to begin Stage 1?

It is important to note that although the Medicare EHR Incentive Program penalties will not be applied to Medicare Part B payments until calendar year 2015, the assessment of the penalty will depend on an EP’s performance in 2013 or 2014. In other words, EPs must be able to achieve Stage 1 of meaningful use before 2015 to avoid the payment penalty in 2015. Table 1 on page 191 describes accumulations of incentives and percentages of penalties from 2011 to 2015 and beyond.

The Medicare EHR Incentive Program

by Sana Gokak, MPH
in Table 2 on page 192. Once an EP is ready to begin reporting cases, he or she must meet the 15 core set measures and select and meet five of the 10 menu set measures. EPs must choose at least one of the population and public health measures from the menu set. The menu measure set of objectives and measures for EPs are summarized in Table 3 on page 193.

In addition to meeting the set measure requirements, EPs must report on three core clinical quality measures in order to demonstrate meaningful use: blood pressure level, tobacco status, and adult weight screening and follow-up (or three alternate core measures if these are inapplicable). EPs who are unable to report on the core clinical quality measures may instead report the alternate core measures, which include influenza immunization for patients older than age 50, weight assessment and counseling for children and adolescents, and childhood immunizations. If all six core and alternate core measures are inapplicable, EPs may report zeros for all six denominators.

Moreover, EPs must select and report on three additional measures from a subset of clinical measures most appropriate to their scope of practice. If these three additional selected measures have a value of zero in the denominator, then EPs must attest that all other clinical quality measures, if calculated by the certified EHR technology, would also have a value of zero in order to be exempt from reporting on additional measures.

Keep in mind that some of the Stage 1 core, alternate core, and clinical quality core, alternate, and additional measures will change beginning in 2013.

---

**TABLE 1.**

**MAXIMUM TOTAL AMOUNT OF EHR INCENTIVE PAYMENTS FOR A MEDICARE EP**

<table>
<thead>
<tr>
<th>CALENDAR YEAR*</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015 and on</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>$18,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>12,000</td>
<td>$18,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>8,000</td>
<td>12,000</td>
<td>$15,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>4,000</td>
<td>8,000</td>
<td>12,000</td>
<td>$12,000</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>2,000</td>
<td>4,000</td>
<td>8,000</td>
<td>8,000</td>
<td>$0; -1 percent of Medicare fee schedule (penalty)</td>
</tr>
<tr>
<td>2016</td>
<td>2,000</td>
<td>4,000</td>
<td>4,000</td>
<td>4,000</td>
<td>$0; -2 percent of Medicare fee schedule (penalty)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$44,000</td>
<td>$44,000</td>
<td>$39,000</td>
<td>$24,000</td>
<td>$0</td>
</tr>
</tbody>
</table>

*Note: A calendar year equals a payment year.
<table>
<thead>
<tr>
<th>Objective</th>
<th>CORE MEASURE SET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computerized Physician Order Entry (CPOE) for medication orders directly entered by any licensed health care professional who can enter orders into the medical record per state, local, and professional guidelines</td>
<td>More than 30% of unique patients with at least one medication in their medication list have at least one order entered using CPOE. Exclusion: EPs who write fewer than 100 prescriptions during the EHR reporting period.</td>
</tr>
<tr>
<td>Implement drug-drug and drug-allergy interaction checks</td>
<td>Functionality is enabled for these checks for the entire EHR reporting period.</td>
</tr>
<tr>
<td>Generate and transmit permissible prescriptions electronically (eRx)</td>
<td>More than 40% of all permissible prescriptions are transmitted electronically using certified EHR technology.</td>
</tr>
<tr>
<td>Record patient demographics, including: Preferred language, gender, race, ethnicity, date of birth</td>
<td>More than 50% of all unique patients have demographics recorded as structured data.</td>
</tr>
<tr>
<td>Maintain up-to-date problem list of current and active diagnoses</td>
<td>More than 80% of all unique patients have at least one entry or an indication that no problems are known for the patient recorded as structured data.</td>
</tr>
<tr>
<td>Maintain active medication list</td>
<td>More than 80% of all unique patients have at least one entry (or an indication that the patient is not currently prescribing any medication) recorded as structured data.</td>
</tr>
<tr>
<td>Maintain active medication allergy list</td>
<td>More than 80% of all unique patients have at least one entry (or an indication that the patient has no known medication allergies) recorded as structured data.</td>
</tr>
<tr>
<td>Vital signs: Record and chart changes in height, weight, blood pressure; calculate and display body mass index (BMI); plot and display growth charts for children from 2 to 20 years, including BMI</td>
<td>For more than 50% of all unique patients age two and older, height, weight, and blood pressure are recorded as structured data. Exclusion: EPs who see only patients younger than two years old, or who believe that all three vital signs of height, weight, and blood pressure of their patients have no relevance to their scope of practice.</td>
</tr>
<tr>
<td>Smoking status: Recorded for patients 13 years of age or older</td>
<td>More than 50% of all unique patients age 13 or older have smoking status recorded as structured data. Exclusion: EPs who see no patients 13 years or older.</td>
</tr>
<tr>
<td>Implement one clinical decision support rule relevant to specialty or high clinical priority, along with ability to track compliance with that rule</td>
<td>Implement one clinical decision support rule.</td>
</tr>
<tr>
<td>Report ambulatory clinical quality measures to CMS or in the case of Medicaid EPs, the states</td>
<td>For 2011, provide aggregate numerator, denominator, and exclusions through attestation; for 2012, submit clinical quality measures electronically.</td>
</tr>
<tr>
<td>Provide patients with an electronic copy of their health information (including test results, problem list, medication lists, medication allergies) upon request</td>
<td>More than 50% of all patients who request an electronic copy of their health information receive it within three business days. Exclusion: EPs who have no requests from patients or their agents for an electronic copy of patient health information during the EHR reporting period.</td>
</tr>
<tr>
<td>Provide clinical summaries for patients for each office visit</td>
<td>Clinical summaries provided to patients for more than 50% of all office visits within three business days. Exclusion: EPs who have no office visits during the EHR reporting period.</td>
</tr>
<tr>
<td>Capability to exchange key clinical information (for example, problem list, medication list, medication allergies, diagnostic test results) among providers of care and patient authorized entities electronically</td>
<td>Perform at least one test of certified EHR technology’s capacity to electronically exchange key clinical information.</td>
</tr>
<tr>
<td>Protect electronic health information created or maintained by the certified EHR technology through the implementation of appropriate technical capabilities</td>
<td>Conduct or review a security risk analysis and implement security updates as necessary and correct identified security deficiencies as part of its risk management process.</td>
</tr>
</tbody>
</table>

*These core measures are only applicable until the end of calendar year 2012. Some additional mandatory and optional changes will begin in 2013.
<table>
<thead>
<tr>
<th>Objective</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implement drug-formulary checks</td>
<td>This functionality is enabled and the EP has access to at least one internal or external drug formulary for the entire EHR reporting period</td>
</tr>
<tr>
<td>Incorporate clinical lab-test results into certified EHR structured data</td>
<td>More than 40% of all clinical lab test results ordered by the EP during the EHR reporting period whose results are either in a positive/negative or numerical format are incorporated in certified EHR technology as structured data</td>
</tr>
<tr>
<td>Exclusion: EPs who order no lab tests whose results are either in a positive/negative or numeric format during the EHR reporting period</td>
<td></td>
</tr>
<tr>
<td>Generate lists of patients by specific conditions to use for quality improvement, reduction of disparities, research, or outreach</td>
<td>Generate at least one reporting listing patients with a specific condition</td>
</tr>
<tr>
<td>Send reminders to patients per patient preference for preventive/follow-up care</td>
<td>More than 20% of all unique patients ages 65 or older or five years old or younger were sent an appropriate reminder during the EHR reporting period</td>
</tr>
<tr>
<td>Exclusion: EPs with no patients 65 years or older or five years or younger with records maintained using certified EHR technology</td>
<td></td>
</tr>
<tr>
<td>Provide patients with timely electronic access to their health information (including lab results, problem list, medication lists, medication allergies) within four business days of the information being available to the EP</td>
<td>More than 10 percent of all unique patients are provided timely (available to the patient within four business days of being updated in the EHR) electronic access to their health information, subject to the EP’s discretion to withhold certain information</td>
</tr>
<tr>
<td>Exclusion: EPs who neither order nor create any lab results, problem lists, medication lists, or medication allergies during the EHR reporting period</td>
<td></td>
</tr>
<tr>
<td>Use certified EHR technology to identify patient-specific education resources and provide those resources to patient if appropriate</td>
<td>More than 10% of all unique patients are provided patient-specific education resources</td>
</tr>
<tr>
<td>EPs who receive a patient from another setting of care or provider of care or believes an encounter is relevant should perform medication reconciliation</td>
<td>EPs perform medication reconciliation for more than 50% of transitions of care in which patients are transitioned into their care</td>
</tr>
<tr>
<td>Exclusion: EPs who were not the recipients of any transitions of care during the EHR reporting period</td>
<td></td>
</tr>
<tr>
<td>Transition/referral of patient to another setting or provider of care: EP should provide summary of care record for each transition of care or referral</td>
<td>Summary of care record provided for more than 50% of transitions of care and referrals</td>
</tr>
<tr>
<td>Exclusion: EPs who neither transfer a patient to another setting nor refer a patient to another provider during the EHR reporting period</td>
<td></td>
</tr>
<tr>
<td>Capability to submit electronic data to immunization registries or immunization information systems and actual submission in accordance with applicable law and practice</td>
<td>Performed at least one test of certified EHR technology’s capacity to submit electronic data to immunization registries and follow-up submission if the test is successful (unless none of the immunization registries to which EPs submit such information have the capacity to receive the information electronically)</td>
</tr>
<tr>
<td>Exclusion: EPs who administer no immunizations during the EHR reporting period, or where no immunization registry has the capacity to receive the information electronically</td>
<td></td>
</tr>
<tr>
<td>Capability to submit electronic syndromic surveillance data to public health agencies and actual submission in accordance with applicable law and practice</td>
<td>Performed at least one test of certified EHR technology’s capacity to provide electronic syndromic surveillance data to public health agencies and follow-up submission if the test is successful (unless none of the public health agencies to which EPs submit such information have the capacity to receive the information electronically)</td>
</tr>
<tr>
<td>Exclusion: EPs who do not collect any reportable syndromic information</td>
<td></td>
</tr>
</tbody>
</table>

*These menu set measures are only applicable until the end of calendar year 2012. Some additional mandatory and optional changes will begin in 2013.
Stage 2 of the Medicare EHR Incentive Program is scheduled to begin in calendar year 2014. The ACS will provide more information on Stage 2 of the program for use in 2014.

In the first year of participation, EPs will need to report for a consecutive 90-day reporting period during any point in a calendar year until October 1 of a respective year. EPs must report for a full calendar year in subsequent years of participation.

**When will Stage 2 begin?**
Stage 2 of the Medicare EHR Incentive Program is scheduled to begin in calendar year 2014. This means that EPs who decide to wait until 2014 to begin participation must first complete Stage 1 and take the following steps:

- Report Stage 1 90-day reporting in 2014
- Provide Stage 1 full calendar year reporting in 2015
- Begin compliance with Stage 2 requirements in 2016

The ACS will provide more information on Stage 2 of the program for use in 2014.

**What resources are available to assist a user in enrolling and participating in the program?**
The American College of Surgeons (ACS) has created several resources to help surgeons learn more about the program. Visit the ACS EHR website at www.facs.org/ahp/ehr/index.html or the CMS EHR website at www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/index.html for more information.

The ACS also partnered with AmericanEHR Partners, which provides more information on various EHR vendor ratings, podcasts offering an overview of various components of the program, and proposals from various vendors, and also disseminates e-newsletters, and more. To register, visit www.americanehr.com/Home.aspx.
Negotiating the EHR vendor contract

by Jenny Jackson, MPH; Steven J. Fox, Esq.; and Vadim Schick, Esq.
Throughout the process, remember that everything is negotiable, including price, payment terms, limitations of liability, and warranties. Also, it is important for one to hold his or her cards close to their vest. Some providers make the mistake of advising a vendor that it has been selected as the winner of the request for proposal process, and all that remains is to enter into a contract. By doing so, such providers may inadvertently undermine their bargaining position. In certain cases, a dual-track negotiation process, where a provider negotiates with two vendors at the same time, may even be worthwhile. It is much more effective to select the top two vendors, and advise the preferred vendor that if negotiations break down, the second choice is waiting in the wings. These approaches tend to keep the pressure on the preferred vendor and generate additional concessions. Nevertheless, both parties should aim for a fair deal and keep in mind that they will have to work together in the future.

**Software**

Surgical practices should keep in mind the following key points related to EHR software when negotiating the EHR contract. First, the contract should identify the minimum hardware and any third-party products that are required to run the system’s applications. The contract also should give full ownership of all data to the provider and state that all data will be returned to the provider if the contract is terminated for any reason. This provision is particularly important...
for cloud-based, application service provider (ASP) or Software as a Service (SaaS) licensing models, in which the vendor has exclusive control of the provider’s information. Such information includes patients’ protected health information (PHI), which resides on remotely hosted servers (for example, the “cloud”). In addition, the contract should indicate what will happen if the vendor is acquired by another company, files for bankruptcy, goes out of business, or otherwise experiences financial difficulties that affect its ability to deliver services. In any of these cases, it is essential that a provider have the ability to continue operating the EHR system and have immediate access to all of its data and its patients’ data.

User license

It is essential to determine the correct type of license for the provider’s particular needs. There is no such thing as a “standard” license. For example, there are shrink-wrapped licenses, typically used for off-the-shelf software; site licenses, covering a specific geographical location; enterprise-wide licenses, encompassing an entire business or institution; named user or concurrent user licenses; and ASP or SaaS licenses, governing the right to use software on a subscription-type basis. Each of these arrangements, and other types of licenses, has its own inherent set of unique issues, which must be carefully analyzed.

Another important consideration in determining the type of license a surgical practice needs is how many people will have access to the EHR. An EHR contract can define a single user as one physician, several mid-level providers (nurses and physician’s assistants), as well as administrative staff. However, additional costs may be associated with each user and each computer running the software. If so, negotiate additional license fees up front, rather than agreeing to pay “then-current” fees in the future. Define the pricing for the number of users, how many computers the software may be installed on, and if it may be used in multiple offices.

Other license terms must also be carefully reviewed using the following questions: Will the license be perpetual, for a fixed term or renewable annually? Will there be a single payment of license fees or are they to be paid for as long as the license remains in effect? Is any third-party software included in the system that may require a sublicense? If all of these issues are not addressed properly, significant problems and unexpected price increases could occur during the term of the agreement.

Implementation

Implementation will be one of the most significant and crucial expenditures, because its success is key to the project. Nonetheless, not all vendors offer implementation services, so surgical practices will need to negotiate both the cost and payment terms associated with implementation.

Initial implementation tasks may require the transfer and conversion of existing data, either from another system or paper records. The contract should specify who is responsible for those tasks as well as the costs for accomplishing them.

An essential component of implementation is agreeing upon the implementation project plan and setting up an implementation timeline, which includes testing of the EHR product by the surgical practice (commonly referred to as “acceptance testing”) to verify that the EHR system performs in accordance with the vendor’s representations, including EHR documents and specifications. Achieving “acceptance,” the successful completion of acceptance tests, will usually trigger first productive use or first live use of the software (that is to say, the system starting to process actual live patient data). In addition, acceptance is often used as a payment milestone for the final or penultimate payment.

In the event a vendor fails to achieve acceptance of the EHR system or a particular component thereof, the surgical practice should retain the right under the contract to get a full refund of all fees paid, including all related license and implementation fees. Moreover, in this post-HITECH Act era, the provider’s total damages for a vendor’s failure to successfully complete acceptance testing may be greater than just the amounts paid to the vendor, and the practice should consider a right to seek additional damages.

Interfaces

Interfaces, which allow disparate technology and systems to communicate with each other, are an often-overlooked area of contracting. If a prac-
tice has pre-existing hardware or software that will need to transmit or receive data to or from the EHR, the vendor will need to provide one or more interfaces to accomplish this task. Similarly, interfaces may be necessary to communicate between the EHR system and hospitals or other practices. Other examples of necessary interfaces include scanners, fax machines, laboratory systems, and pharmacy systems.

**Pricing and payments**

It is best to negotiate objectively measurable performance milestones that the vendor must achieve before payment is required. These milestones should be coordinated with detailed acceptance testing criteria. For example, 10 percent of the contract price may be paid upon execution, 20 percent upon delivery, 30 percent upon completion of installation, and the remaining 40 percent upon final acceptance. However, be aware that vendors are increasingly resistant to the use of these types of milestones, opting instead for date-based milestones—often blaming their position on revenue recognition rules. Nevertheless, the use of carefully drafted performance milestones is highly recommended. Otherwise, the contract may require most of the purchase price to be paid before the provider is satisfied that the software performs as promised. As a general rule, it is better to link payments to vendor’s performance obligations (for example, completion of acceptance testing or go-live) than to calendar dates (for example, contract signing or one year after the effective date of the agreement).

**Warranties**

Most vendors provide minimal or no warranties in their standard contracts. It is crucial for providers to secure warranties for the following items: system compliance with functional and performance specifications, compatibility of components, viruses and disabling devices, prevention of unauthorized access or usage of system, sunset issues, availability of support/maintenance, and many other important issues.

If the vendor’s product is essential to achieving meaningful use, then the vendor should also warrant to fully cooperate with the provider to enable it to achieve meaningful use. The vendor should warrant that its product is, and will remain, certified by one of the Office of the National Coordinator for Health Information Technology Authorized Testing and Certification Bodies (ONC-ATCBs). Considering the fast-approaching expiration date on qualifying for the maximum incentive payments, a vendor’s breach of these warranties would have a significant negative financial impact on a surgical practice. Hence, if a practice fails to qualify for the HITECH incentive payments because of its vendor’s failure to obtain certification, remain certified, or cooperate fully with the practice, the practice should be entitled to a refund of all fees paid to the vendor under the agreement. The practice may also seek additional amounts, such as liquidated damages or penalties related to the amounts of incentive payments lost or Medicare penalties incurred due to failure to qualify as a meaningful user of certified EHR.

The contract also should include specific language that ensures the system will comply with all Health Insurance Portability and Accountability Act (HIPAA) and government requirements related to the confidentiality and security of patient and provider information. Continuing compliance with all state and federal laws should come at no additional cost to the provider.

In addition, the EHR contract should specify the conditions under which a breach of contract has occurred, including, but not limited to, the system failing to perform as specified in the software’s documentation or in the contract itself, consistent poor performance of the system, breach of contract terms or warranties, or negligence by the vendor. In the event of such termination for cause, the vendor should refund all fees, costs, and charges paid under the contract, with the amount dependent upon when the breach occurs.

**Training and support**

The contract should also specifically address training, service obligations, updates, and maintenance. Along with implementation, these items are likely to constitute a major expense.

Staff training will be a key factor in the provider’s successful use of the EHR system and
in receiving the meaningful use incentives. As a result, all aspects of training should be identified in the contract, including how many hours are included, who is covered, and details about the training, such as scope and subject areas covered, training materials, and procedures. As part of the initial contact, the practice should also specify how additional or follow-up training, if needed, would be handled.

The preliminary contract also should address and clearly define the hours and days support is available, including time zone and what types of support are available. The contract should address the consequences if the vendor fails to meet the support requirements. For a clinical system, such as an EHR, timely support is crucial to the product’s success. The vendor must commit to providing such support, as well as uptime and downtime metrics.

All technology requires occasional updates, and it is important to identify how often updates occur, if the practice is expected to install all updates, and, if appropriate, whether all updates are included in the support fees (after all, that is why providers pay support fees). Maintenance may add significant additional costs to the vendor contract, including for new software releases, new functional capabilities, and other product upgrades or enhancements. The contract should specify what is included in the maintenance agreement and how maintenance costs are calculated.

**Confidentiality, privacy, security**

Another set of hidden dangers relates to confidentiality, privacy, and proprietary rights. Most contracts contain terms protecting the vendor’s trade secrets and restricting access to the software. However, it is rare to find similar protections for the user. Surgical practices should protect their proprietary interests in their patient and other practice-related information and insist on mutual confidentiality, with strict limitations on the vendor’s use of the practice’s patient information. This safeguard is especially important in light of the substantial changes to existing HIPAA rules, as mandated by the HITECH Act and the accompanying regulations. Privacy and security issues now are directly related to a provider’s ability to amend and/or terminate the contract for a vendor’s failure to comply with applicable laws, fair allocation of compliance costs, and requirements for vendors to enter into business associate agreements.

**Termination and transition**

Vendors should be prohibited from terminating the contract, except for a very serious breach by the practice. Even if such a breach occurs, the agreement should afford the practice sufficient time to cure the breach and should require the vendor to notify multiple executives and representatives of the breaching party.

After termination or expiration of the contract, the vendor should offer the practice at least six to 18 months of transition services, including helping the practice transfer its data to a new supplier. The practice should, of course, pay for such services, but at negotiated contract rates, rather than the vendor’s then-current standard rates, which are typically higher.

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**Top five tips for negotiating contracts**

- Everything is negotiable, including costs and the small print/large print waivers or warnings; do not hesitate to negotiate caps on liability or indemnification provisions.
- Ask an attorney who is familiar with HIT contracts to review the contract (which should be provided initially in a modifiable format by the vendor), including terms and conditions that could result in additional costs or penalties to the provider.
- EHR software should satisfy all federal and state regulatory requirements (including privacy and security obligations) and become certified by an ONC-ATCB for purposes of achieving meaningful use.
- Include all written and verbal agreements in the contract, including any representations, warranties, and software documentation.
- Link all payments to vendor’s performance obligations rather than calendar dates (for example, link payments to completion of implementation milestones, acceptance, or go-live dates, rather than contract signing or a number of months after the effective date of the agreement).
Limitation of liability and indemnification

The limitation of liability clause is often one of the most contentious areas of negotiation. However, failure to adequately address this issue may result in the provider’s inability to recover or even claim damages for actual losses suffered as a result of breach of contract or negligence by the vendor. It is essential to “carve out” from the limitation of liability a number of areas, including breach of confidentiality and privacy; personal injury, death, and property damage; intellectual property infringement; and vendor’s breach resulting in the provider’s failure to achieve meaningful use in a timely manner.

A good contract should also contain strong indemnification provisions and warranties. The indemnification should protect the purchaser from HIPAA and privacy/confidentiality violations by the vendor; third-party claims for bodily harm, injury, or death caused by the vendor’s personnel or software; and claims that the software infringes on third-party patents, trademarks, or copyrights, or misappropriates trade secrets.

Most troubling, perhaps, are the indemnification obligations some vendors impose on providers. It is not uncommon for vendors to require providers to indemnify them for any third-party claims brought against the vendor as a result of the vendor-provider relationship, even where the vendor is at fault. Agreeing to such a provision could be disastrous for practices that have existing contracts with malpractice insurance carriers that exclude such indemnifying arrangements from coverage. In other words, if a surgeon agrees to indemnify an EHR vendor and incurs damages as a result of this obligation, that surgeon’s malpractice insurance company may refuse to cover such damages.

SaaS/ASP models

Some vendors offer traditional software and equipment products as well as ASP, remote hosting, and SaaS models of their EHR systems. These subscription-type models pose a few significant additional risks to providers. One of the biggest disadvantages for providers using these models for their EHR systems is that they have no actual access to, or possession of, their data independent of the vendor. Thus, the vendor could conceivably hold such practice’s data hostage (perhaps because of a payment dispute). These situations also raise concerns about what happens if the vendor ceases business operations. Providers need to negotiate broad protections and rights to access their data in such deals, including: barring vendors from ever holding provider’s information, including PHI, hostage; mandating regular backups of data; and explicit provisions regarding return of any provider data, including PHI, to the provider upon termination of the agreement, especially if the agreement is terminated due to the vendor going out of business.

Conclusion

The acquisition process for HIT systems is generally complex, intensive, and critically important to all of the participants. Although this article addresses some of the important issues to consider when negotiating an EHR contract, there are many other considerations to keep in mind. However, surgical practices that follow these guidelines are likely to negotiate contracts that protect them and that benefit both parties by creating a trusting, sustainable partnership.

Nonetheless, even a carefully negotiated contract may have shortfalls. A successful EHR contract negotiation does not mean that all of the items discussed in this article are included in the contract. The inability to secure each of these items does not mean the negotiation has failed. The most important factor is the successful implementation of the EHR. It is also important that the contract be equally beneficial for both the vendor and practice, because both parties will have to continue their relationship to ensure sustained success of the EHR once it is in place.

If you have any questions or comments on this article, contact Jenny Jackson at jjackson@facs.org or 202-672-1506.

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Mr. Fox and Mr. Schick are health IT attorneys at Post & Schell, PC, in Washington, DC.
Quality Measures and Public Reporting
Multi-stakeholder, consensus-based quality measurement is central to the delivery of safe, accessible, patient-centered, and affordable care. The Institute of Medicine’s report *To Err Is Human*, published in 1999, has been credited as the impetus for shifting the U.S. health care system toward an emphasis on improved quality of care achievable through new initiatives, such as public reporting and pay for performance.1 This changing environment led to the creation of multi-stakeholder organizations charged with improving quality and reducing cost.

Through effective partnerships, the American College of Surgeons (ACS) has served as a motivating force in the drive to improve the quality of surgical care. The ACS has played a leadership role, and is recognized as a key contributor to the development, validation, and implementation of national quality measures.

The College has contributed its insights and services to a number of national organizations, agencies, and programs that are involved in creating a road map for improved quality of care and developing strategies aimed at creating change in health care delivery. This article outlines the roles of these various entities and details the College’s contributions to their endeavors.

**Creating a road map**

With the passage of the Patient Protection and Affordable Care Act (ACA), the federal government has demonstrated a commitment to ensuring the delivery of safer and more transparent, efficient, and patient-centered care. This commitment is articulated through the identification of national priorities and financial incentives designed to drive the types of changes in practice that are believed to lead to less waste and higher quality care. Also crucial to this commitment are mandates requiring the public reporting of information on physicians, including the upcoming mandatory reporting of quality measures on Medicare’s Physician Compare website.2

The National Quality Strategy (NQS) is the framework outlined in the ACA and subsequently...
Through effective partnerships, the American College of Surgeons (ACS) has served as a motivating force in the drive to improve the quality of surgical care.

interpreted and developed by the Secretary of the U.S. Department of Health and Human Services (HHS) with multi-stakeholder input. The NQS is designed to guide the development and prioritization of quality measurement. The NQS also forms the backdrop for the national quality initiatives with the aim of developing a “transparent collaborative process that shall establish a national strategy to improve the delivery of health care services, patient health outcomes, and population health,” as mandated in the ACA.3

As a result of this mandate, the NQS provides a context for quality measurement, measure development, and measure alignment across federal reporting initiatives, as well as analysis of where stakeholder resources can be used to increase efficiency and accountability in health care. The NQS pursues three aims: better care, healthy people/healthy communities, and more affordable care. To accomplish these aims, NQS focuses on the following priorities: health and well-being, prevention and treatment of leading causes of mortality, person and family-centered care, patient safety, effective communication and care coordination, and affordable care (see Figure 1, page 207).4

NQF’s priority setting efforts
National Priorities Partnership (NPP). What sets NQF apart among quality care organizations is that it was selected by HHS to fulfill a provision in the ACA which requires a consensus-based entity to convene multi-stakeholder groups to provide input to HHS on the development of the NQS.5 As mentioned previously, the foundation of the NQS is to build a national consensus on how to measure quality and facilitate stakeholders to align their interests. In response to this mandate, the NQF convened the NPP to identify goals and measures of the NQS priorities, to provide annual input to HHS on progress toward the goals, and to offer guidance on strategic opportunities for improvement.5 The NPP is represented by 51 national organizations inclusive of public and private stakeholder groups.

Measure Applications Partnership (MAP). For the first time in national quality measure development, the ACA made way for significant enhancements to the traditional federal rulemaking process by provid-
Leaders in developing quality measures
AMA Physician Consortium for Performance Improvement (PCPI). One of the leading measure developers in physician QI is the PCPI, convened by the American Medical Association. The PCPI is a nationally recognized organization that has set the standard for the development of physician-level quality measures among a broad range of clinical topics encompassing structure, process, and outcome measures. PCPI focuses on clinically meaningful, evidence-based performance measures, which are reviewed by PCPI member-appointed work groups, which may include members with expertise in performance measurement methodology and clinical content. Members may include purchaser, employer, health plan, and consumer and patient representatives. Measures are also vetted through public comment and PCPI member voting. This broad-based approach to measure development works to minimize bias and to measure what is important and actionable for physicians.

PCPI tests measures for feasibility, reliability, validity, and unintended consequences through their testing protocol that further establishes the evidence base for each PCPI measure. These measures are continuously subject to an ongoing process of testing and maintenance that prepares measures for measure endorsement and implementation.

As a result of PCPI’s evidence-based, cross-specialty, multidisciplinary process, this group has been the leading steward in measure development for national accountability and quality improvement physician programs, such as the Medicare Physician Quality Reporting System (PQRS) and the Medicare and Medicaid Electronic Health Record (EHR) Incentive Program Stage 1 (EHR Meaningful Use Program). The PCPI has developed more than 280 measures, and more than 57 percent of measures in PQRS in 2011 and 45 percent of measures in the Stage 1 EHR Meaningful Use Program have been developed by the PCPI. PCPI has also taken the lead in enabling use of measures in EHRs.
As part of this initiative, PCPI created the National Quality Registry Network (NQRN), which facilitates the standardization and interoperability of quality data across patient registries. The ACS—in collaboration with the Surgical Quality Alliance (SQA)—has partnered with PCPI on the development, maintenance, and endorsement of the PCPI Perioperative Care Measure Set. The ACS and SQA have provided evidence-based data to support and refine the measures aimed at improving the use of appropriate antibiotic and venous thromboembolism prophylaxis. As part of this partnership, which resulted in well-validated measures, PCPI perioperative care measures have been selected to be included in federal quality improvement programs, enabling the surgical community to more easily participate in the PQRS. The College also contributes to PCPI’s efforts through representation on the PCPI executive committee, fellow appointments to various work groups, and through public comment to ensure that measures developed by PCPI account for the unique nature of surgery.

Other Measure Developers. CMS and the Agency for Healthcare Research and Quality (AHRQ) are the leading federal agencies in quality measure development. Several independent not-for-profit organizations also have focused their efforts on consensus-based measure development, including The Joint Commission and the National Commission for Quality Assurance (NCQA). Lastly, in addition to the PCPI and the ACS, several professional medical societies have fo-

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<th>TABLE 1.</th>
<th>ACS representation within national quality organizations</th>
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<tr>
<td><strong>AQA</strong></td>
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<tr>
<td>Strategic Planning Workgroup, chair</td>
<td>David Hoyt, MD, FACS</td>
</tr>
<tr>
<td>ACS representative</td>
<td>Frank Opelka, MD, FACS</td>
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<tr>
<td><strong>National Quality Forum (NQF)</strong></td>
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<tr>
<td>Consensus Standards Approval Committee</td>
<td>Frank Opelka, MD, FACS</td>
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<tr>
<td>Common Formats Technical Expert Panel</td>
<td>Don Detmer, MD, FACS</td>
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<tr>
<td>Patient Outcomes: All-Cause Readmissions: Steering Committee</td>
<td>Bruce Hall, MD, PhD, FACS</td>
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<tr>
<td>Regionalized Emergency Medical Care Services Project Steering Committee</td>
<td>John Fildes, MD, FACS</td>
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<tr>
<td>National Priorities Partnership, Affordable Care representative</td>
<td>Frank Opelka, MD, FACS</td>
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<tr>
<td>National Priorities Partnership Patient Safety Workgroup, co-chair</td>
<td>Frank Opelka, MD, FACS</td>
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<tr>
<td>Patient Safety: Complications Endorsement Maintenance Steering Committee</td>
<td>John Clarke, MD, FACS</td>
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<tr>
<td>ACS member representative</td>
<td>Bruce Hall, MD, PhD, FACS</td>
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<td>ACS member representative</td>
<td>Mary Maniscalco-Theberge, MD, FACS</td>
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<tr>
<td>Cancer Endorsement Maintenance Project Steering Committee</td>
<td>Stephen Edge, MD, FACS</td>
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<tr>
<td>MAP Hospital Workgroup, chair</td>
<td>Frank Opelka, MD, FACS</td>
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<tr>
<td>MAP Ad Hoc Safety Workgroup, chair</td>
<td>Frank Opelka, MD, FACS</td>
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<tr>
<td>MAP Coordinating Committee, ACS representative</td>
<td>Frank Opelka, MD, FACS</td>
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<tr>
<td>MAP Cancer Care Workgroup, chair</td>
<td>Frank Opelka, MD, FACS</td>
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<tr>
<td><strong>Physician Consortium for Performance Improvement (PCPI)</strong></td>
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<tr>
<td>National Quality Registry Network Task Force/Leadership Council</td>
<td>Clifford Ko, MD, MSHA, FACS</td>
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<tr>
<td>Executive committee</td>
<td>Frank Opelka, MD, FACS</td>
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<td>ACS member representative</td>
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<tr>
<td>Anesthesiology and Critical Care Work Group member</td>
<td>Heidi Frankel, MD, FACS</td>
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<td><strong>Quality Alliance Steering Committee (QASC)</strong></td>
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<td>ACS member representative</td>
<td>Frank Opelka, MD, FACS</td>
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<td><strong>Surgical Quality Alliance (SQA)</strong></td>
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<td>Surgical Quality Alliance, chair</td>
<td>Frank Opelka, MD, FACS</td>
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Validating quality measures

**National Quality Forum (NQF).** The NQF is an independent not-for-profit organization that has set the standard for the science of quality measurement validation in the national quality landscape. NQF provides quality measures with “NQF endorsement” based on a rigorous multi-stakeholder consensus-based measure review. NQF endorsement represents the gold standard in measure development. To receive endorsement, measures must meet the following criteria:

- Importance to measure and report to keep focus on priority areas to maximize positive effects on health care quality
- Scientifically acceptable, so that the measure, when implemented, will produce reliable and valid results about the quality of care
- Useable and relevant to ensure that intended users (consumers, purchasers, providers, and policymakers) can understand the results of the measure and find them useful for quality improvement and decision making
- Feasible to collect with data that can be readily available for measurement
- Assess related and competing measures

NQF’s consensus development process (CDP) is based on transparency and multi-stakeholder consensus to determine whether each measure meets the endorsement criteria. Each workgroup that reviews a measure for possible endorsement has representation from the following NQF Councils: Consumer Council; Health Plan Council, Health Professionals Council, Provider Organizations Council, Public-Community Health Agency Council; Purchaser Council; Quality Measurement, Research and Improvement Council; and Supplier and Industry Council. The Consensus Standards Approval Committee (CSAC), which includes a diverse set of health care stakeholders, determines if consensus was met among

<table>
<thead>
<tr>
<th>Organization</th>
<th>Step</th>
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<tbody>
<tr>
<td>NPP</td>
<td>NPP announces the prioritization of measures based on the national priorities outlined in the NQS</td>
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<tr>
<td>NQF</td>
<td>NQF announces a call for measures for a given topic area that correspond with the priorities outlined by the NPP</td>
</tr>
<tr>
<td>Measure developers (PCPI, ACS, NCQA or other)</td>
<td>Measure developers, such as PCPI or ACS, develop and test measures in response to the call for measures</td>
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<tr>
<td>Measure developers</td>
<td>Measure developers submit measures for NQF endorsement</td>
</tr>
<tr>
<td>NQF</td>
<td>NQF evaluates and endorses measures based on the measure evaluation criteria: importance to measure and report; scientific acceptability (reliability and validity); usability; feasibility; comparison to competing or related measures</td>
</tr>
<tr>
<td>NQF</td>
<td>NQF uses its Consensus Development Process to review each measure</td>
</tr>
<tr>
<td>NQF</td>
<td>Measures endorsed for 3 years before reevaluated</td>
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<tr>
<td>MAP</td>
<td>MAP recommends endorsed measures housed in the measure library for use public or private programs</td>
</tr>
<tr>
<td>CMS</td>
<td>CMS selects measures for inclusion in public programs from the measure library and includes measures in regulations after public comment</td>
</tr>
<tr>
<td>NQF</td>
<td>After three years, NQF reevaluates measures based on the measure evaluation criteria while keeping in alignment with the NPP</td>
</tr>
<tr>
<td>Measure developers</td>
<td>Measure developers update measures specifications, provide updated evidence, measure testing results, or any other necessary information</td>
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</table>

**TABLE 2. Sample quality measure step-by-step**

(While this is a sample case study, this is not reflective of all processes for measure development.)

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- Useable and relevant to ensure that intended users (consumers, purchasers, providers, and policymakers) can understand the results of the measure and find them useful for quality improvement and decision making
- Feasible to collect with data that can be readily available for measurement
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As the national quality landscape evolves, the ACS will continue to strengthen its leadership and guidance as national quality organizations work to implement ACA mandates throughout the health care system redesign.

all NQF councils and whether the measure met NQF criteria. The CSAC then recommends endorsement to the NQF Board of Directors. Measures are endorsed for three years, entered into maintenance, and then are re-evaluated based on NQF endorsement criteria.

The ACS is a member of the Health Professionals Council and represents the surgical perspective in several relevant NQF workgroups, including on the CSAC. The ACS monitors and analyzes measure development and NQF policies while also voting regularly and providing comments to proposals and frameworks. The measure endorsement stage is a crucial time for the College to provide input because the measures endorsed by NQF are most likely to be the measures that CMS selects for inclusion in federal incentive programs, which determine physician bonus payments and the metrics used for public reporting.

Implementing quality measures

AQA. The AQA—once known as the Ambulatory Quality Alliance—is a multi-stakeholder quality organization that focuses on facilitating measure implementation by addressing the gap between quality measurement and improvement. The AQA represents more than 100 organizations including clinicians, consumers, purchasers, and health plans. The mission of the AQA is to improve patient safety, health care quality, and value in all settings where members develop consensus and promote strategies for quality measure implementation, collect and aggregate relevant data, and report relevant information on this data to inform decision making and with the aim to improve patient outcomes.12

Guided by David B. Hoyt, MD, FACS, ACS Executive Director and chair of the Strategic Planning Committee, the AQA has revised its role in the health care system redesign with the creation of a strategic plan to meet the needs of the quality community. As outlined in the strategic plan, the AQA plans to work with other quality organizations to facilitate alignment across public and private efforts.

The AQA also plans to analyze and promote “best practices” to fill the gap between measurement and improvement. This effort includes identifying measures that had the most success in driving improvement and investigating additional levers of QI such as certification and professionalism. Lastly, the AQA plans to work on
providing guidance to HHS on quality initiatives such as the NQS and public reporting programs. The ACS has been consistently represented on AQA workgroups and committees and will continue to work in collaboration with the AQA as the strategic plan is implemented.12

The Quality Alliance Steering Committee (QASC). This committee is a collaborative effort of a variety of stakeholders vested in the implementation of quality improvement initiatives that focus on making information on quality improvement and the cost of care consistent, useful, and widely available to consumers, providers, and public and private payors. Through the High Value Health Care Project, the QASC is developing a solution for more efficient data aggregation and integration, measuring cost and efficiency for high-priority clinical conditions, and advancing equity in health care among racial and ethnic groups.13 The ACS works in partnership with the QASC through representation on their committees to ensure that initiatives are inclusive of the needs of surgical patients.

Sample step-by-step quality measure case study

Table 2 on page 209 illustrates the steps involved to increase the likelihood for the inclusion of a quality measure in a federal quality reporting program (or ensuring that a bad measure is not included), and it is a long, multi-layered process. The College has been heavily involved in measure development and endorsement, and monitors and acts at all levels of the measure development enterprise to help ensure that the perspective of the surgical patient is at the center of measure development.

As the national quality landscape evolves, the ACS will continue to strengthen its leadership and guidance as national quality organizations work to implement ACA mandates throughout the health care system redesign. The College aims to deliver evidence-based information from the surgical perspective so that quality measurement, endorsement, and implementation will be accurately and fairly implemented according to surgery’s unique nature. ACS input is more important now than ever as we work with quality organizations to interpret ACA mandates, ensuring that efforts accurately measure and publicly report care delivered to surgical patients. ◆

REFERENCES


Public reporting of health care data: 
A new frontier in quality improvement

by
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John E. Mayer, Jr., MD, FACS;
and
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The American College of Surgeons (ACS) historically and continuously has sought to promote the highest standards of surgical care. Hence, the ACS recognizes the importance of objectively collecting, analyzing, and reporting data regarding processes of care and clinical and patient outcomes in efforts to optimize quality. The public and the government are now expressing a greater demand for this data. This article addresses the role of public reporting as a means of informational transparency that aims to maximize the quality of deliverable surgical care.

Properly done, public reporting offers several potential benefits. It could reduce information asymmetry between both patients and providers and providers and payors; promote competition in the health care marketplace; apply pressure to reduce costs and improve quality; empower patients to be more active participants in their own care; and foster a culture of accountability, transparency, and efficiency. However, to be successful, public reporting must use a framework that has credibility for both those being evaluated and for those using the data.

Most current health care data collection and reporting modalities suffer from inherent limitations. For example, the claims data that commercial payors and the Centers for Medicare & Medicaid Services (CMS) currently use are designed primarily for billing and payment purposes and are not specifically tailored for quality measurement. Therefore, these claims data are ineffective for tracking many relevant clinical processes and outcomes. The three main drawbacks of administrative claims data pertain to: (1) documentation; (2) coding; and (3) attribution. With regard to documentation, it is often unclear from claims data which physician served as the primary surgeon or anesthesiologist and which served as the assistant.

The second issue is that coding is carried out by hospitals’ medical records staff who are not directly involved in the care of patients and is limited by the information entered into patients’ medical records. The issue with attribution is that no standardized methodology is available to appropriately ascribe patient episodes of care among the several providers who participate in the care. Furthermore, the crucial ability to risk-adjust at the individual patient level to account for differences in prior medical health status and other factors affecting procedural risk remains limited, despite the many algorithms that attempt to compensate for these deficiencies.

Whereas feedback from outcomes data to physicians and hospitals can be a powerful tool in quality improvement, an over-reliance on claims data, for the reasons listed previously, is potentially problematic. Ideally, surgical care should be assessed with clinical data using outcomes measures specifically designed for surgical quality improvement that are clinically relevant and risk-adjusted. These data may then be combined with episode-based and long-term resource use data that assess cost.

Ultimately, national reimbursement policies (such as Medicare’s hospital conditions of participation or value-based purchasing) will be driven by quality performance measures. How these measures are developed and reported to various interested groups will be crucial to optimizing quality. The ACS believes a strategy that addresses the needs of all pertinent stakeholders (patients, physicians, hospitals, and payors) is critical to successfully reporting health care data, while avoiding unproductive and potentially harmful regulatory and payment policies. The ACS remains committed to providing leadership in innovative quality assurance and the development of data-driven standards through programs such as the College’s National Surgical Quality Improvement Program (ACS NSQIP®), a hospital-based registry used by more than 400 hospitals. Through the use of clinical data, ACS NSQIP has provided surgeons with vital patient information that has led to real cost savings through improved care.

Other efforts

Many physician, insurer, and governmental organizations have collaborated to establish guidelines for public reporting. Several are described in this article, but this list is by no means comprehensive.

AQA

The AQA alliance—originally known as the Ambulatory Care Quality Alliance—is a coalition started by the American Academy of Family Physicians (AAFP), the American College of Physicians (ACP), America’s Health Insurance Plans (AHIP), and the Agency for Healthcare Research and Quality (AHRQ). It is now a multi-stakeholder collaborative composed of more than 100 organizations representing physicians, clinicians, consumers, and health insurance plans. The AQA alliance has focused on establishing a
consensus regarding a set of measures for assessing clinical performance that will be useful to payors, a multi-year strategy for rolling out measurements in the marketplace, a model for aggregating data, and a method for reporting useful data to providers, consumers, and purchasers. With regard to health care reform, the AQA aims to facilitate alignment between public and private efforts, promote best practices, address the gap between measurement and improvement, and provide guidance to the U.S. Department of Health and Human Services.4

The Commonwealth Fund

The Commonwealth Fund is a private foundation that was established in 1918 and supports independent research with the ultimate goal being to promote a high performing health care system that achieves better access, improved quality, and greater efficiency, particularly for society’s most vulnerable populations, including low-income people, the uninsured, minority Americans, young children, and elderly adults.4 Regarding public reporting, The Commonwealth Fund recognizes the powerful potential of quality improvement, but stipulates the following: information must be presented consistently and appropriately, multidisciplinary collaboration between numerous stakeholders is essential, research and concurrent evaluation should remain a prospective goal as well, and automated data collection is ideal.6

STS and ACCF

Public reporting of non-risk-adjusted coronary bypass mortality rates by Medicare was first undertaken in the 1980s, and this initiative provided the catalyst for the formation of the Society of Thoracic Surgeons’ (STS) Adult Cardiac Surgery Database. This database has grown and evolved since its initial formation into an audited database containing more than 4.5 million patient records with more than 1,000 adult cardiac surgical centers currently submitting data on each patient undergoing a cardiac surgical procedure. A “rating” system (one, two, or three stars)—based on risk-adjusted mortality rates and on a number of National Quality Forum (NQF)-approved process measures—has been developed. Each center participating in the database receives reports on its performance twice each year. Auditing is carried out upon data submission, and randomly by an external auditing entity (Iowa Foundation for Medical Care). In an agreement with Consumer Reports, over the last 24 months, database participants may voluntarily submit their STS rating for presentation in this publication.7-9 In addition, participating centers may also post their star ratings on the STS website (www.STS.org).

New York State and Pennsylvania began reporting coronary artery bypass graft (CABG) mortality rates for surgeons and hospitals in the early 1990s. New York developed its own risk-adjustment system for both coronary bypass procedures and for percutaneous coronary interventions, and Pennsylvania reports unadjusted (raw) mortality rates. The American College of Cardiology Foundation (ACCF) has developed its own clinical registries for various subspecialty areas, the most prominent being an interventional catheterization database. The ACCF 2008 health policy statement on principles for public reporting of physician performance data state the following: the driving force behind such measures should be quality improvement, performance measures should be scientifically valid, reporting programs should be developed in partnership with physicians, disparate reporting programs should be standardized and uniform as best possible, reporting should occur at the appropriate level of accountability, and all reporting programs should include a formal process evaluating the program’s effect on quality and cost, including an assessment of potential unintended consequences.10

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<th>Stakeholders’ data needs in the public reporting schematic</th>
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VOLUME 97, NUMBER 6, BULLETIN OF THE AMERICAN COLLEGE OF SURGEONS
Stakeholder perspective

Given the dynamic interplay of the medical industry, public reporting necessarily involves a mix of various stakeholders. Successful reporting will require consideration of each party’s various needs (see table, page 214).

**Patients**

Because the driving force behind public reporting should be improvement of quality of deliverable care, the patient perspective remains essential. Information asymmetry between patients and providers has been a consistent barrier to increasing the role of patient choice in improving quality and decreasing costs. Public reporting constitutes a powerful intervention that can bridge this gap, but only if conducted appropriately. Therefore, patients should have access to information that meets the following criteria:

- **Understandable.** Measures on processes and outcomes must be reported to patients in a manner that the lay population can easily interpret. Information in performance reports must not be misleading or confusing; it should be clear and accurate, otherwise it can exacerbate the already-prominent information asymmetry. Using performance reports to make health care choices is a very difficult cognitive task. Patients have a difficult time differentially weighing factors reported about physicians, and although they often believe they are weighing various factors, they often are not.11

- **Useful and relevant.** Patients should be able to use public reporting data to make logical and informed decisions that guide their care-seeking behavior, including choice of physician(s) and/or hospital(s). Such measures should also offer reassurance that current care is safe, effective, affordable, and patient-centered as a form of positive reinforcement. Finally, comparative metrics that allow selection between providers and/or hospitals should be considered as well. The likelihood of differences, when identified as statistically important and/or clinically relevant, should be explained. Reports should provide guidance on making the information provided actionable for the patient.

- **Easily accessible.** Patients should be able to find and view information with a public search, and various methods of access should be built into the design of public reporting protocols. Information technology has already been used to bridge information asymmetry in other industries (such as used car sales) and offers a powerful tool in the area of public reporting as well.

**Physicians**

Physician participation is crucial to the success of public reporting initiatives. Therefore, the following provider perspectives must be considered:

- **Physician-led.** Due to the increasing complexity of specialized medicine, physicians delivering care within the specialty being reported should identify, maintain, and prospectively review quality metrics that evaluate processes and outcomes. These metrics should be created in an open fashion with provisions made for external comments into the rule-making process.

- **Quality-oriented, not punitive.** Public reporting initiatives should be implemented primarily as quality improvement efforts that aim to improve systems and prevent systems failures; they should not serve as punitive indictments that mark individual and organizational culpability. Individualized confidential reports for physicians to understand where their care or outcomes differ from their peers should be considered for all
The following should serve as guiding principles for enacting accurate and effective public reporting:

**Data characteristics**
- Quality improvement should remain the driving force behind public reporting initiatives.
- Processes of care, and the clinical, patient, and outcome quality metrics, should be valid, timely, reliable, evidence-based, and appropriately risk-adjusted to account for medical, socio-cultural, and economic factors that affect patient care.
- Data safeguards must be implemented to protect the privacy of patients and physicians.

**Data collection**
- Expert physician involvement and oversight are required to create measures, analyses, outcomes, and public reports.
- Data should be collected in a manner verifiable by independent clinicians and/or trained data abstraction experts.
- Data collection facilities should have appropriate infrastructure, including staffing, specialists, and equipment.
- Data collection should, itself, be cost-effective and, ideally, electronic.

**Data analysis**
- Data analysis should be transparent, clearly defined, and independently reviewable by those being reported on, as well as statistically robust.
- Periodic external peer review is vital to verifying analytic methodology.
- Both processes and outcomes should be measured and benchmarked, with more emphasis placed on outcomes.

**Reporting**
- For outcomes that are dependent on multidisciplinary performance of teams of physicians and other ancillary health care professionals, reporting is most appropriate at the organizational, as opposed to the individual physician, level.
- Quality and resource use measures should be linked at both the physician and organizational levels to demonstrate overall value and effectiveness.
- All reports, both electronic and paper-based, should include disclaimers regarding the limitations of physician performance assessment and the uses of such information for consumer choice and overall quality improvement.
- All public reporting initiatives should include prospective and concurrent evaluations of their effect on cost, quality, and any unintended consequences.
- Reporting on patient experience should use validated, reliable, and standardized tools.
- Public reporting should include an appeals process for dispute resolution that is accessible by clinicians and consumers, with timely and responsive data adjudication and correction.

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**Protected.** Physicians should balance the issues of maintaining patient confidentiality against promoting transparency of public reporting measures themselves. Current federal law does not protect information submitted to patient safety systems from discovery in legal proceedings, which discourages their use and limits their potential for future corrective measures. To be
optimally effective, public reporting systems may require such protections, so that information provided by physicians remains privileged for judicial proceedings in civil matters or other disclosures.

• **Publicly accountable.** Because disputes between physicians or between physicians and other agents will arise, public reporting should include mechanisms for timely review and appeal of any results, with public resolution of such issues.

### Employers/purchasers

Publicly reported data are also valuable to employers as well as patients, as long as they meet the following criteria:

• **Aggregated.** Employers should have access to aggregated information that they can use to select coverage options and providers for their employees. Protections to avoid the release of specific outcomes of certain patients within the employer group must be included in reporting in order to protect the privacy of the patients in the database. This information should include costs and quality outcomes of possible providers and hospitals, as well as benchmarks of service and quality standards.

• **Easily obtainable.** This information should be presented in a manner that is understandable for purchasers and easily obtainable.

### Payors/insurance companies

Substantial information asymmetry also exists between patients and insurers, and between insurers and in-network providers. Public reporting may potentially bridge this gap as well by meeting the following criteria:

• **Available.** Insurers should be able to use available data to evaluate in-network providers on processes and outcomes.

• **Comparative.** Insurers should be able to evaluate their own performance on service and quality against competitors and other relevant norms.

• **Tailored.** Quality outcomes should be tailored to remain relevant to the insured population.

• **Effective.** It is worth noting in this context that the most powerful information will likely result from a merger of clinical registry outcome data with insurance company data upon use. These merged data will allow the assessment of the effectiveness of treatment strategies and fulfill a major need in the U.S. health care system for more rational use and control of resources.

### Hospitals

Publicly reported data will benefit hospitals as well by meeting the following criteria:

• **Comprehensive.** Information submitted to reporting systems should be comprehensively analyzed to identify interventions that minimize the risk of unintended negative consequences.

• **Confidential.** Confidentiality protections must be enacted for patients, health care professionals, and health care organizations to enable a culture of identifying and reducing errors.

• **Collaborative.** Reporting systems should facilitate sharing of patient information across health care organizations and foster confidential collaboration across different reporting systems.

### Government/policymakers

It is important to note that, at the current critical juncture in health care, public reporting can be used to guide future policymaking by meeting the following criteria:

• **Cumulative.** Policymakers should have access to current and accurate aggregate information on providers, hospitals, and health plans.

• **Granular.** Governing bodies should be allowed to monitor changes in the health care system, identify areas requiring closer examination, and promote a culture of self-reporting by monitoring groups.

• **Systems-based.** Policymakers and other regulatory bodies should stress the importance of avoiding direct punitive actions against individual providers or groups, and, instead, should favor systems-wide corrective actions tailored for quality improvement.
Efficient. Policymakers should support the development of improved quality measures and promote coordination between groups to decrease duplication and other redundancies.

Innovative. Policymakers should foster cooperation and reward innovation to incentivize public reporting and implementation of improvements.

Unresolved issues

Despite the powerful benefits that public reporting offers and the increasing recognition of its utility, several issues remain unresolved, which should serve as guidelines for future inquiry.

First, an AQA alliance survey revealed that consumers want information on individual physicians, as well as larger groups and hospitals. While feasible, "concerns about sample size, attribution, and other technical issues challenge the ability to measure physicians at the individual level." Therefore, process and outcomes metrics may need to be further designed to specifically analyze individual physicians, and this information needs to be reported in a fair and accurate manner to patients. Efforts to ensure equity and accuracy are particularly important when considering various lower volume services where statistical "noise" may yield results that are not reflective of the quality of care. For complex in-hospital procedures that require interaction among multiple providers from different specialties, a focus on a single physician may not provide an accurate reflection of the overall quality of care provided by a team of caregivers.

Second, in any public reporting schema there are trade-offs between the transparency required for success and confidentiality required to protect physicians from litigation and from unfair and invalid characterizations of their clinical practices. If public reporting data may be used in litigation, physicians are far less likely to comply, which may undercut public reporting initiatives. Ultimately, patients themselves may be on the losing side of this situation due to the lack of potential quality improvement. Therefore, a solution must be enacted that balances appropriate confidentiality and protection required for compliance from providers with transparency needed to fairly and accurately assess publicly reported information.

Third, public reporting poses numerous issues concerning data management. Various agencies could manage and audit the entire public reporting process, including professional societies, certifying medical boards, regulatory bodies, and third-party payors. This option, which bypasses control of the process, will invariably affect the financial incentive structure.
required to make public reporting sustainable in the long-term. Furthermore, the relationship between professional public-reporting registries and both the CMS and private insurance companies will need to be defined.

**Conclusion**

Public reporting involves the objective collection, robust analysis, and transparent reporting of health care data to patients, providers, insurers, hospitals, and policymakers. Such measures constitute a new frontier in quality improvement that may promote competition in the health care marketplace, empower patients to be more active participants in the handling of their own care, and foster a greater culture of accountability, transparency, and efficiency. In the organization’s continual quest to provide the highest standards of surgical care, the ACS remains committed to propelling public reporting forward as a market-based initiative that will drive quality improvement.

**References**

The Physician Compare website

by Sana Gokak, MPH

As required under the Affordable Care Act (ACA), the Centers for Medicare & Medicaid Services (CMS) established the Physician Compare website in January 2011. This site currently features information on Medicare physicians and other eligible professionals (EPs) who participate in the Physician Quality Reporting System (PQRS).

In the 2013 Medicare Physician fee schedule (MPFS) final rule, CMS lays out a framework for expanding the website by collecting information on physician quality, efficiency, patient experience of care, and how such information will be made available on Physician Compare. This column details how CMS’ plan may impact surgeons. For additional information on the Physician Compare website, visit the Medicare website at http://www.medicare.gov/find-a-doctor/provider-search.aspx?AspxAutoDetectCookieSupport=1.

What type of information is CMS currently posting on the Physician Compare website?

CMS lists basic provider information as well as information on whether a provider has successfully participated in the PQRS program and/or Electronic Prescribing (eRx) Incentive Program. CMS collects basic provider information through the Medicare Provider Enrollment, Chain, and Ownership System (PECOS), making it imperative that the information a provider has on file in the PECOS system is up to date and accurate.

Using Physician Compare, EPs may obtain definitive information about physicians and other health care professionals by selecting a location and specialty. The results provide information on specialty, practice locations, group practice and hospital affiliations, Medicare assignment status, education, languages spoken, gender, and so on.

The ACA also mandates that CMS use the most recent incentive program information to indicate whether a professional has satisfactorily participated in the PQRS program and/or is a successful electronic prescriber under the eRx Incentive Program.

What type of information is CMS planning to post on the Physician Compare website in the future?

CMS is planning to include updated administrative information on an EP’s page as well as information regarding physician performance. CMS plans to enhance the administrative data by adding information on whether a physician or other health care professional is accepting new Medicare patients, board certification information, improved foreign language, and hospital affiliation data. CMS also intends to include the names of EPs who are successfully participating in the PQRS, the PQRS Maintenance of Certification bonus program, and the eRx Incentive Program. When feasible, CMS will post the names of EPs who are successfully participating in the Electronic Health Record (EHR) Incentive Program. As noted in the 2013 MPFS final rule, CMS will display an indicator on the profile Web page of an EP to acknowledge satisfactory participation in the incentive programs.

Under the ACA, CMS is required to implement a plan no later than January 1, 2013, and make publicly available on the Physician Compare website information on physician performance that provides comparable quality and patient experience measures. The 2013 fee schedule finalized CMS’ plan to use data from the existing PQRS program as a first step toward making physician measure performance information public on Physician Compare. CMS has finalized the decision to make public on Physician Compare, beginning later in 2013 or early 2014, the performance rates on the quality measures that group practices submit under the 2012 PQRS group practice reporting option Web-interface and the Medicare Shared Savings Program, as well as patient experience of care data.

Moreover, CMS will only post quality measure information on groups of 100 or more EPs and must meet a sample size of 20 patients who prove to be statistically valid and reliable.
To ensure that the data are statistically valid, CMS will not report on a measure if a measure meeting the minimum threshold is invalid or unreliable for any reason. Additionally, CMS plans to post on the Physician Compare website in 2014 several composite measures that reflect group performance across related measures. CMS also intends to work with specialty societies in the future to include specialty society data that are already collected for other purposes and go through appropriate testing. Lastly, CMS plans to post information on individual-level data beginning in 2015 but will address the details of doing so in future rulemaking.

**How will Physician Compare impact me?**

Although CMS will start posting physician performance and patient experience of care data in 2014, they will begin by only posting information on groups of 100 or more EPs. Before posting the patient experience of care data, CMS will provide group practices and accountable care organizations with a 30-day period to preview their quality data and how it will appear on the Physician Compare website. Eventually, CMS will include individual-level data on Physician Compare, and specific details on how this information will be presented will be decided in future rulemaking. EPs are encouraged to regularly check their profiles to ensure the accuracy of the information being provided.

Should there be any errors, providers are encouraged to log into their PECOS account, which is available at https://pecos.cms.hhs.gov/pecos/login.do. For more information on PECOS accounts, visit http://www.medicare.gov/find-a-doctor/staticpages/provider-resources/overview.aspx. By providing consumers with quality-of-care information, CMS’ goal is to help consumers make informed decisions about their health care and also encourage clinicians to improve the quality of care that they provide to their patients.
Workforce shortages
Workforce Shortages
The importance of surgical workforce maps

by Thomas Ricketts III, PhD, MPH; Chantay Moye; and Dana Halvorson

The Association of American Medical Colleges’ Center for Workforce Studies estimates that the U.S. will face a shortage of 46,000 surgeons and medical specialists in the next decade. For example, New Jersey, the third wealthiest state in the U.S. according to the U.S. Census Bureau’s report on median household income for 2011, is projected to have at least 3,000 fewer physicians than will be needed by 2020 to adequately serve the state’s health care needs. Unfortunately, other states are facing the same predicament.

In the mid-2000s, national policymakers debated how to better define and overcome these emerging shortages, and the American College of Surgeons (ACS) sought to have a voice in these discussions. As a result, the College established the Health Policy Research Institute (ACS HPRI) at the University of North Carolina (UNC) Cecil G. Sheps Center for Health Services Research in Chapel Hill.

Under the direction of George F. Sheldon, MD, FACS, and Thomas C. Ricketts III, MPH, PhD, the ACS HPRI developed resources aimed at creating a clearer understanding of where disparities in access to surgeons and surgical care are most prevalent. Over the last two years, the ACS HPRI has steadily relocated to the College’s Washington Office. Dr. Ricketts is now a formal consultant to the College’s Division of Advocacy and Health Policy (DAHP), and UNC now functions as a Health Policy Collaborating Center. These important workforce research activities at UNC continue through the direction of Dr. Ricketts and Erin Fraher, MPP, PhD, at UNC and Don E. Detmer, MD, FACS, Medical Director of the DAHP.

Earlier this year, the ACS HPRI released updated surgical workforce maps that illustrate the distribution of general surgeons and surgeon specialists per 100,000 population across the nation in 2006 and 2011. The maps track the number of surgeons in each county in 2011 and the change in surgeons per population between 2006 and 2011. The data and maps include all 3,107 counties in the U.S.

In 2012, the HPRI released an updated version of the U.S. Atlas of the Surgery Workforce which is an interactive, Web-based data system that displays surgery and population data on customizable maps available at www.acshpri.org/atlas/. The Atlas details demographic and health access indicators by county and state, and reveals where surgeon and physician shortages threaten patient access to timely, safe, high-quality, affordable health care.

This column provides answers to questions surgeons may have concerning the...
The overall picture is one of change that mirrors general economic trends.

The central focus of the ACS HPRI and the relevance of surgical workforce maps to policymakers, providers, and patients.

**What is the ACS HPRI and its purpose?**
The College established the HPRI in 2008 to study and report on issues related to the state of the surgical profession, the surgical workforce, and the volume of surgical procedures in the U.S. The HPRI provides expert advice, data analysis, and original research for surgical associations and boards, policymakers, and the health services research community.

**Selected HPRI surgical workforce maps are updated every year, but trend data are gathered every five years. Given the quantity and quality of existing data and trends, is more immediate data collection needed?**
Acquiring data can be costly, and researchers must consider the amount of time required to prepare the data for analysis. HPRI researchers have captured complete workforce data files from 1981 to 2011 and have completed detailed trend analyses for each file. These trend analyses, in turn, will require additional in-depth review, adding to the cost of the research.

HPRI reviews annual numbers for comparisons of national and state-level numbers. HPRI releases in-depth data in five-year increments as researchers have found this schedule to be the most practical for interpreting data.

**What kind of surgical workforce data can I expect to find in these maps?**
The maps display data for surgeons in the specialties in one category and general surgeons in another. Subspecialties will be added in the near future. The specific maps include:

- Surgeons per 100,000 population, 2006 and 2011
- Percent change in surgeons per 100,000 population, 2006 and 2011
- General surgeons per 100,000 population, 2006 and 2011
- Percent change in general surgeons per 100,000 population, 2006 and 2011
- Counties that lost all general surgeons between 2006 and 2011
- Counties that saw a decline of 10 percent or greater in general surgeons to population ratio, 2006–2011
- Counties that saw a decline of 10 percent or greater in surgeons to population ratio, 2006–2011
- Counties that saw an increase in general surgeons to population ratio, 2006–2011
- Counties that saw an increase in surgeons to population ratio, 2006–2011

**The ACS HPRI U.S. Atlas of the Surgical Workforce shows state-by-state data. What are the benefits of presenting the information in this manner?**
The state-by-state data provide a sense of variation. It is important that surgeon advocates be able to demonstrate these differences because states control essential policies that affect medical and surgical practice, including tort laws, payments under Medicaid, and funding for medical education and residency training. As Figure 1 on page 227 shows, the current Atlas allows surgeons and policymakers to view the U.S. distribution of total surgeons, general surgeons, surgical subspecialists, total physicians, and primary care physicians at the state level. The state-level maps are also the gateway to county-level maps for each state. By clicking on the individual state, the user is taken to a
county-level map with options for displaying various data.

In addition, the Atlas shows the supply and geographic distribution of institutions and individuals providing surgical services so that health care professionals, policymakers, and patients are able to anticipate changes in distribution and to identify places with limited access to surgical services. New Atlas data will be available by the end of this year.

Which areas are most at risk of decreasing health care coverage, and what factors are contributing to the shortage of surgeons in these particular areas?
As Figure 2 on page 228 demonstrates, counties located in the middle of the country have been experiencing significant surgeon shortages in recent years. The swath of rural counties in the middle of the nation, running from North Dakota to Texas, experienced the greatest shortages in 2006, and not much changed in 2011.5

Some of these states have seen a decrease in their population and/or their employment rate is falling. Physicians and surgeons are responding to the economic realities and choosing to leave or to start practices in other areas. The overall picture is one of change that mirrors general economic trends. There is also a mixed pattern of contraction or expansion of supply across the nation that tends to show a concentration of surgeons in counties with large cities.

The maps indicate that the East Coast has more counties with higher densities of surgeons. What’s the explanation for this trend?
As Figure 2 indicates, the Northeast traditionally had a higher physician supply. There were several reasons for this trend, including a strong economy, more training centers and hospitals, and more practice opportunities. However, a net shift from the Northeast and Midwest to the South and West is occurring, which may not be as apparent in the county-by-county maps. This shift follows the overall pattern of migration of the U.S. population to the Sun Belt as states in that region strengthen their economies and expand practice opportunities and training programs.

Has the HPRI uncovered any inconsistencies in the distribution of surgeons?
One could point to the mixed pattern of gains and losses in Minnesota, Iowa, and Virginia as examples of inconsistencies that may reflect small, regional patterns of...
FIGURE 2. SURGEONS PER 100,000 POPULATION, 2006 AND 2011

2011 surgeons per 100,000 population map key

2006 surgeons per 100,000 population map key

Produced by: American College of Surgeons Health Policy Research Institute, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.
Source: AMA Physician Masterfile, 2011. Data include non-federal, non-resident, clinically active physicians less than 60 years old reporting a primary specialty classified by the ACS HPRI as surgery.
Surgical maps allow legislators to see where surgeon shortages exist, and this information can be used to craft policies that address such disparities.

How can surgeons best use the information in these maps? Are they more beneficial for policymaking, wage negotiation, advocating, or some other purpose?

The maps may provide a general impression of where the surgical workforce situation is getting better or worse. These maps are important for policymaking, wage negotiation, advocating for better health care facilities, and deploying resources to reduce patient mortality. The maps can help surgeons shape the questions they may wish to ask regarding practical realities and the quality of life in the practice locations they are considering. In addition, the maps can help patients determine where surgical access might be more readily available.

How could the maps be used to shape policy at both the federal and state level relative to existing and proposed legislation?

If trends point to state-level policies that may drive surgeons away from a particular state, then those policies require reexamination. There are substantial differences in the conditions surgeons face from state to state, and surgeons will react to negative factors by changing their practice location. Both state and federal legislators have an obligation to examine their policy choices and their impact on access to quality health care. Surgical maps allow legislators to see where surgeon shortages exist, and this information can be used to craft policies that address such disparities.

Dr. Ricketts and the staff at HPRI are available to answer questions concerning the maps highlighted in this article and how best to analyze and display geographic data. Dr. Ricketts can be reached at tom_ricketts@unc.edu, or contact Katie Gaul, HPRI Research Associate, at k_gaul@unc.edu. Visit www.acshpri.org/maps.html to access the maps.

REFERENCES


The ACS HPRI: Shaping surgical workforce policy through evidence-based analyses

Editor’s note: This article is being published jointly in the Bulletin of the American College of Surgeons and the Bulletin of The Royal College of Surgeons of England. With health reform underway in both countries, the issues confronting the surgical workforce in the U.S. are strikingly similar to the challenges facing the surgical workforce in England. This article describes the American College of Surgeons (ACS) Health Policy Research Institute’s (HPRI) role in collecting, analyzing, and disseminating information about the surgical workforce in the U.S., and suggests that the ACS HPRI might serve as a model for the Royal College of Surgeons (RCS) of England to assist the U.K. government in workforce planning.

Decisions about whether to enact policies that change the size, composition, or distribution of the surgical workforce affect a range of stakeholders and can be the source of contentious debate. Unlike in England, the U.S. government has had a very limited role in workforce planning, with decisions about the allocation of training slots and surgical posts generally left to the market. However, the capability of this market-based approach to workforce planning is being reevaluated in light of the current shortage and maldistribution of health professionals—including surgeons—and the rising demand for health care...
services due to insurance expansion, an aging population, and epidemiological trends.

As the RCS of England considers engaging in similar efforts to build a workforce analytic infrastructure, the ACS HPRI’s work may be a useful model. The current challenges facing England are substantial: A need to find £20 billion ($32 billion) in efficiency savings, the restructuring of primary care through general practitioner commissioning, and the reorganization of workforce planning through the creation of a Centre for Workforce Intelligence. Similar challenges face the U.S. Health care reform legislation has put pressure on the surgical profession to demonstrate cost-effectiveness and to define its value in a policy environment where primary care and preventative services have center stage.

Introduction

The ACS established the HPRI in March 2008 at the Cecil G. Sheps Center for Health Services Research at the University of North Carolina (UNC) at Chapel Hill. Founded in 1968, the Sheps Center has long been recognized as one of the leading health services research centers in the U.S. An alliance with the Sheps Center enables the ACS to gain access to a wealth of data and to draw on a large cadre of faculty researchers, experienced data management personnel, project managers, cartographers, economists, policy analysts, and other experts on the health care system.

The goal of the ACS HPRI is to use objective data and state-of-the-art analysis to build the evidence based on issues related to the delivery of surgical services, the surgical workforce, and public policies affecting surgery. This knowledge base is then used to educate the public, federal and state governments, health care consumers, practitioners, and the policy community about the issues affecting surgical patient care. Such a role has never been more important than now, as the ACS seeks to “have a seat at the table” as decisions affecting the surgery profession are made in the rapidly changing health care reform debate.

Budget constraints, increased calls for payment reform, and the emphasis on health care delivery structures, such as accountable care organizations that incentivize providers to lower costs and improve quality, will change the way surgical care is delivered and reimbursed. In addition, the emerging shortage of surgeons combined with the increased demand for services that will result from expanded health insurance coverage creates an urgent need to address surgical workforce supply and distribution. As the College engages with policymakers in discussions about policy options to address these workforce issues, the work of the ACS HPRI enables the ACS to elevate its profile above that of most professional advocacy groups because its position statements have been informed and supported by objective data and research.

The ACS HPRI’s goals can generally be categorized into five key areas:

• Assembling data and generating the basic descriptive analyses needed to understand the surgical workforce
• Conducting policy analysis and research on issues related to access to care, cost, and quality
• Engaging in longer-term research that builds the science of surgical workforce planning
• Providing rapid response answers to the College, the public, the profession, and other stakeholders
• Providing training for medical students, residents, and public health students in surgical health services research

Assembling good data

Some of ACS HPRI’s most important accomplishments include building the data system required to conduct robust workforce analyses. This has been accomplished by assembling data on the number of surgeons in the current workforce and numbers in the educational pipeline from partners such as the American Medical Association (AMA) and the Association of American Medical Colleges (AAMC). In an effort to move beyond simply counting surgeons, ACS HPRI staff has merged these provider files with data on the utilization of surgical services collected from the Agency for Healthcare Research and Quality’s Healthcare Cost and Utilization Project, Medicare utilization data, and the ACS National Trauma Data Bank. Provider- and activity-level
Figure 1

U.S. specialist and general surgeons per 100,000 population, 1981-2005

<table>
<thead>
<tr>
<th>Year</th>
<th>Specialist surgeons</th>
<th>General surgeons (Composite)</th>
<th>General surgeons (G5 only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1985</td>
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<td></td>
<td></td>
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<tr>
<td>1987</td>
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<td></td>
<td></td>
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<tr>
<td>1989</td>
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<tr>
<td>1991</td>
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<td></td>
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<tr>
<td>1993</td>
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<td></td>
<td></td>
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<td>1995</td>
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<td>1997</td>
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<td>1999</td>
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<td>2001</td>
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<td></td>
</tr>
<tr>
<td>2003</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cost of surgical care

A key strength of the ACS HPRI is the depth of data management and analytical expertise, which allow data from a variety of sources to be concatenated or merged. For example, provider-level data from the AMA Physician Masterfile have been combined at the individual surgeon level to track the migration patterns of surgeons and describe trends in their geographic diffusion throughout their career trajectory. Additionally, analysts have been able to merge provider files with discharge data to analyze variation in scope and volume of practice among general surgeons in rural and urban areas. The effect of gender and birth generation on hours worked has also been investigated using longitudinal files.

The ACS HPRI has also conducted surveys when existing secondary data sets did not provide needed information on the surgical workforce. One such survey collected information from the 246 U.S. general surgery residency training programs regarding their current program characteristics and capacity to expand training.

Initial work of the ACS HPRI has focused on workforce analyses because this is an area of established expertise for Sheps Center staff. However, the ACS HPRI has begun to develop
a research portfolio examining costs of surgical care. One study examines regional variation in health care spending using Medicare data compiled at the hospital service area, and reveals that the presence of surgeons is actually associated with lower costs, on average.\textsuperscript{11} Other studies include an analysis of the cost-effectiveness of early surgical intervention for gallbladder disease examining claims data, an examination of the costs associated with repeat imaging in trauma transfers, and a population-based assessment of breast magnetic resonance imaging utilization in newly diagnosed cases or incident cases.\textsuperscript{12-14}

**Enhancing surgical workforce planning**

ACS HPRI analyses have also improved the analytical techniques commonly applied to workforce planning. For example, because the U.S. has much less experience with national health workforce planning than England, the ACS HPRI contracted with the National Health Service (NHS)
Workforce Review Team to develop a supply model forecasting the overall surgical workforce in the U.S. from 2007 to 2025. The model allows users to forecast future supplies of surgeons by head count and full-time equivalent by age, gender, race, geographic location, and specialty. It is primarily intended to be an open source tool for policy analysis, allowing users to generate and compare “what if” scenarios regarding changes in graduate medical education and other policy levers at the state, national, or regional level.15

Several ACS HPRI studies illuminate trends in the utilization of surgical services and the organization of the surgical workforce that have implications for workforce planning. An unpublished study of pediatric surgical care in North Carolina identifies a gradual but considerable shift in the location of pediatric surgical care from community hospitals to larger facilities.16 These findings suggest the need to evaluate the size of pediatric surgery fellowship training programs, as the future workload may strain the existing workforce. Similarly, studies of oncology care for prostate, pancreatic, and esophageal cancer show recent centralization of services despite increasing demand for services; the number of facilities providing oncology services has declined, and the oncology workforce is growing at a lower rate than demand for services.17-19

A long-standing issue for workforce planners is determining what defines a “shortage.” In the U.S., the federal government designates primary care health professional shortage areas (HP-SAs) based primarily on a ratio of primary care physicians-to-population. Physicians who practice in HP-SAs are eligible for federal resources such as loan repayment and scholarships through the National Health Service Corps, bonus payments, and other programs. As well, international medical graduates practicing in HP-SAs qualify for visa waivers. Primary care physicians working in HP-SAs receive an additional 10 percent payment for selected primary care services provided to Medicare beneficiaries. Research is under way at the ACS HPRI to characterize areas of surgical underservice in the U.S. so that general surgeons practicing in areas where there is low access to surgical care can receive a similar bonus. The Affordable Care Act made it possible for general surgeons to receive a 10 percent bonus for care for Medicare patients in primary care HP-SAs where few general surgeons are located. ACS HPRI staff have been asked by members of Congress to develop an index of “surgical underservice” that will characterize access to surgical services throughout the U.S., and will be used to identify areas eligible for bonus payments.

Rapid response

The combination of a strong data inventory with a staff possessing broad research and analytical skills enables the ACS HPRI to act as a resource for policymakers who want quick turnaround analyses on a variety of surgical policy issues. For example, the recent legislation described earlier in this article that authorized bonus payments for surgeons practicing in rural areas required an estimate of the potential number of providers who would be eligible for the payment and an estimate of the budget effect of implementing the bonus payment. ACS HPRI staff analyzed recent physician data to respond to this query and reported to congressional offices within a matter of days.

Similarly, cartographic products have been produced for ACS Fellows and staff. For example, in response to a request from A. Brent Eastman, MD, FACS, former Chair of the ACS Board of Regents, for information regarding the relationship between surgeon supply and mortality, ACS HPRI staff produced a map (see Figure 3, page 236) displaying the number of surgeons and per capita unintentional death rates by county in the U.S.; a collection of 118 maps was compiled and distributed to policymakers and ACS staff in just more than one week.

Surgical health services research training

One key function of the ACS HPRI, and an important benefit of being based at a university, is the development of the research and
policy analysis skills of surgical trainees and faculty. Four surgical fellows are enrolled in formal health services research (HSR) training programs, and they are able to draw on the data, analytical expertise, and faculty mentors of the ACS HPRI. Numerous residents and faculty from the department of surgery at UNC Chapel Hill and other universities collaborate with ACS HPRI staff on a variety of surgical research projects. But the flow of learning is not just from HSR to surgery, as students and faculty from other departments (for example, masters and doctoral students from the department of health policy and management) benefit from the clinical knowledge and practice experiences of surgeons. In this way, the ACS HPRI embodies a collaborative learning structure that marries clinical knowledge with health services research expertise to yield evidence-based policy recommendations on surgical workforce issues.

**Dissemination**

Recognizing that research and data are only of value if they get into the hands of decision makers in a timely and appropriate format, the ACS HPRI has developed a multi-prong dissemination strategy designed to reach a broad spec-
trum of stakeholders, including ACS Fellows and staff, practicing surgeons, policymakers, legislators, academicians, medical educators, and others. Study findings are frequently presented and tailored to the specific audience. For example, while the academic audience is very interested in the methods and limitations of the analyses, the clinical audience tends to focus on implications for future education and practice of surgeons. Policymakers appreciate short, easy-to-digest policy briefs that engage them on issues that are on their immediate agenda. Maps illustrating surgical workforce issues are helpful visual aids to allow them to gauge how well constituents in their location fare relative to other geographic areas. (See table, this page.)

<table>
<thead>
<tr>
<th>Dissemination of HPRI products</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product/publication</strong></td>
</tr>
<tr>
<td><strong>Atlas of Surgical Workforce</strong></td>
</tr>
<tr>
<td><strong>Surgical Workforce Projection Model</strong></td>
</tr>
<tr>
<td><strong>Fact sheets</strong></td>
</tr>
<tr>
<td><a href="http://www.acshpri.org/pubs.html">http://www.acshpri.org/pubs.html</a></td>
</tr>
<tr>
<td>1. Independent Practice Becoming Increasingly Rare among Surgeons</td>
</tr>
<tr>
<td>2. The Aging Surgeon Population</td>
</tr>
<tr>
<td>3. Charity Care Among Surgeons</td>
</tr>
<tr>
<td>4. Pediatric Surgeons: Subspecialists Increasing Faster than Generalists</td>
</tr>
<tr>
<td>5. Surgical Deserts in the U.S.: Places Without Surgeons</td>
</tr>
<tr>
<td>6. Longitudinal Trends in the U.S. Surgical Workforce</td>
</tr>
<tr>
<td><strong>Mapping the Supply of Surgeons in the U.S., 2009</strong></td>
</tr>
<tr>
<td><strong>The Surgical Workforce in the United States: Profile and Recent Trends</strong></td>
</tr>
</tbody>
</table>
Challenges and future directions

Over the past three years, a considerable amount of resources have gone into assembling, cleaning, housing, and merging data sets. These functions have been essential to building the analytic capability of the ACS HPRI, but they are expensive, time-consuming, and raise important data confidentiality concerns that have required the development of rigorous data use agreements.

The issue of resources is an important one. Without sufficient and long-term resources (funding for several years at a time), it is impossible to assemble the data and staff needed to undertake the types of analyses described in this article.

Situating the ACS HPRI within an organization with a ready supply of data and analysts skilled in managing and analyzing those data has been financially advantageous for the ACS. The ACS has benefited from the fact that the salaries for the vast majority of staff who work on ACS projects are also supported by other funded projects and thus the College’s resources can be targeted to purchase only the amount of time needed by the various HPRI projects. In this way, the ACS has access to a wider array of skill sets and expertise than it would if it had to hire in-house staff.

For any organization embarking on a new service line, it makes sense to build on what one knows and already does well. For the ACS HPRI, this meant building on the Sheps Center’s well-established data analysis, management, and cartographic expertise and the workforce expertise. Subcontracts with the AAMC and the NHS Workforce Review Team were an effective way for ACS HPRI to gather outside data and expertise. Now that the ACS HPRI has solidified its organizational structure and established itself, it is time to build relationships with other organizations that will enable the organization to link surgical workforce supply/skill mix configuration with cost, quality, and access measures. In the coming months, the ACS HPRI will be building collaborations with the ACS National Surgical Quality Improvement Program (NSQIP®), which is engaged in developing and implementing measures to evaluate the quality of surgical care. The ACS HPRI will also be building on and enhancing our existing collaborations with the Cancer and Trauma Programs of the ACS and the policy work conducted by the College’s Washington, DC, Office.

Conclusion

Although the U.K. and U.S. health care systems are very different, they face similar workforce challenges. Fiscal pressures have increased the focus in both systems on productivity, cost containment, new models of care, increased roles for primary care doctors in redesigning care, and renewed attention on inter-professional practice models. Both systems have new national health workforce centers, and increased funding has been directed toward data collection and analysis. In terms of medical training, both systems have experienced recent increases in medical school graduates, a lack of interest in general practice/primary care careers, an increasing number of women in the medical workforce, and a decrease in hours worked. However, despite these similarities, there are important differences in the organization and funding of health care in the U.S. and U.K. that generate differences in how the two systems approach workforce planning. Thus, the ACS HPRI model would need to be adapted to fit the workforce planning context in England.

These are both exciting and challenging times for surgical workforce planning in the U.S. and U.K. The increased attention being paid to workforce planning in both countries and the historically strong relationship between the American College of Surgeons and the Royal College of Surgeons of England create the potential for future collaborations on surgical workforce planning and policy issues. ACS HPRI staff welcome the opportunity to share their knowledge and learn from RCS of England workforce efforts in the coming months and years.

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15. Knapton A, Fraher E, Ricketts T. Forecasting the Supply of the U.S. Surgical Workforce: Drawing on the Experience of the National Health Service. Presented at: Association of American Medical Colleges Annual Workforce Meeting; May 6, 2010; Washington, DC.


Dr. Fraher is director, North Carolina Health Professions Data System, Cecil G. Sheps Center for Health Services Research, University of North Carolina (UNC), Chapel Hill, and holds joint faculty appointments in UNC-Chapel Hill’s departments of surgery and family medicine. She is Associate Director of the ACS HPRI.

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Dr. Sheldon is professor of surgery and social medicine at the University of North Carolina, Chapel Hill, and Director of the ACS HPRI.

Dr. Ricketts is professor of health policy and management and social medicine, University of North Carolina Schools of Global Public Health and Medicine, Chapel Hill. He is Managing Director of the ACS HPRI.

Ms. Thompson is a research associate at the Cecil G. Sheps Center for Health Services Research, University of North Carolina, Chapel Hill, and Project Manager for the ACS HPRI.
Surgical workforce: An emerging crisis

by Kristin McDonald, Congressional Affairs Associate; and Jon Sutton, Manager, State Affairs, Division of Advocacy and Health Policy

Partly as a result of earlier assessments that projected an oversupply of surgical specialists, the number of surgeons trained in the nation’s graduate medical education system has remained static for the past 20 years. However, the number of people living in the U.S. has steadily climbed over this time frame. At this point, U.S. population growth has far outpaced the supply of surgeons. As a result, the U.S. is beginning to see signs of an emerging national crisis in patient access to surgical care. 1
Thanks in large part to George F. Sheldon, MD, FACS, and the American College of Surgeons Health Policy Research Institute, evidence of surgical workforce shortages is well documented. Workforce shortages affect nearly all surgical specialties. According to 1996 and 2006 data on workforce numbers produced by the Dartmouth Atlas, general surgery, urology, ophthalmology, and orthopaedic surgery declined 16.3 percent, 12 percent, 11.4 percent, and 7.1 percent respectively. Looking to the future, between 2005 and 2020, the Bureau of Health Professions projects an increase of only 3 percent among practicing surgeons, with declines projected in thoracic surgery (–15 percent), urology (–9 percent), general surgery (–7 percent), plastic surgery (–6 percent), and ophthalmology (–1 percent). In addition, the Archives of Surgery published an analysis last April that showed a decline of more than 25 percent of general surgeons between 1981 and 2005 in proportion to the U.S. population. To be sure, declines are present in both rural and urban areas; however, declines in rural areas appear to be the starting point for shortages at crisis dimensions.

Among Americans receiving health care, 54 million Americans do so in small and rural hospitals. Although some of the rural workforce challenges in those areas relate directly to the difficulty in recruiting surgeons to rural areas, some are also the result of a lack of workforce reinforcement. The level of on-call time is greatest in rural areas; some general surgeons are forced to take call 24 hours a day, seven days a week. In addition, older surgeons in rural areas know that retirement of a less stringent workload may be further off than planned. Surgeons in rural areas also have a lower day-to-day volume of the types of procedures they are expected to perform at any given moment, making them less certain about the quality of care they will be able to provide and increasing liability woes. As a result of these concerns, some surgeons choose to relocate for the relative professional security of a more populated place to practice.

Reasons for shortages

There are many reasons for the surgical workforce shortage. The long-term outlook for the future of surgery contributes to the difficulties in recruiting surgeons: prospects of reduced payment combined with higher practice costs, bigger liability premiums, and the heightened threat of being sued; a crippled workforce leading to demands for more time on call; heavier caseloads with less time for patient care; and a U.S. health care delivery system that is in flux. Given the rigors of a surgical residency, it is understandable that would-be surgeons are deterred from making the extra sacrifices necessary to enter the surgical workforce.

Not only are fewer medical students entering the field of surgery, but large numbers of aging, established surgeons are either decreasing their workloads or retiring. According to the American Medical Association’s Physician Characteristics and Distribution in the U.S. (2007 edition), approximately one-third of the surgical specialists who are key to ensuring adequate emergency call coverage are age 55 or older (general surgeons, 32 percent; neurosurgeons, 34 percent; and orthopaedic surgeons, 34 percent). Hence, it is critical that our nation’s medical schools and training institutions start producing more surgeons in these specialties (see Table 1, this page).

<table>
<thead>
<tr>
<th>Table 1: Aging U.S. physician workforce, general surgery compared with primary care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total active general surgeons</td>
</tr>
<tr>
<td>General surgeons younger than age 55</td>
</tr>
<tr>
<td>Age 55 or older</td>
</tr>
<tr>
<td>Family practice physicians, age 55 or older</td>
</tr>
<tr>
<td>Internal medicine physicians, age 55 or older</td>
</tr>
</tbody>
</table>

Other professional trends add to the imminent workforce crisis as well, including the growing movement toward subspecialization. Program directors, professors of surgery, and other individuals who are familiar with residency matches report that approximately one-half of all general surgery residents go on to pursue fellowships and subspecialization. As their scope of service becomes narrower, a new and alarming trend has emerged: many surgeons no longer feel qualified to manage the broad range of problems they are likely to encounter in an emergency department or rural setting.

Working toward solutions

The American College of Surgeons regularly educates members of Congress and congressional staff on the workforce challenges facing surgery, as documented by the ACS Health Policy Research Institute. Most recently, the College presented a statement on workforce to the U.S. Senate Committee on Finance, highlighting the workforce problem and offering ideas for legislative solutions (available at www.facs.org/AHP/testimony/workforce031209.pdf).

Some of these solutions include recruitment efforts, such as supporting current residency programs and promoting the development of additional residency programs, particularly in rural areas (see Table 2, this page). The College is also working to develop incentives for medical students who are interested in pursuing a surgical career, as well as alleviating some of the current burdens facing medical students, residents, and young surgeons. Specific examples of solutions include the following:

- Preserving Medicare funding for graduate medical education and eliminating the residency funding caps established in the 1997 Balanced Budget Act
- Fully funding residency programs through at least the initial board eligibility
- Including surgeons under the Title VII health professions programs, including the National Health Service Corps program, making them eligible for scholarships and loan assistance in return for commitment to generalist practice following training
- Alleviating the burden of medical school debt and promoting rural/underserved care through loan forgiveness programs that stipulate work in rural/underserved areas
- Extending medical school loan deferment to the full length of residency training for surgeons
- Allowing young surgeons who qualify for the economic hardship deferment to utilize this option beyond the current limit of three years into residency
- Increasing the aggregate combined Stafford loan limit for health professions students

In addition, the College supports legislative efforts that retain and reinforce surgeons in rural areas and emergency rooms. Again, these solutions focus on incentives, as well as making efforts to alleviate the obstacles confronting surgical care. Solutions to retain and reinforce surgeons include the following:

- Create a new health professional shortage area (HPSA), separate from the traditional primary care HPSA, focused specifically on surgery with bonus payment structures for surgeons

### Table 2: Number of first-year ACGME residents/fellows, 2002–2007

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2007</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>General surgery</td>
<td>2,423</td>
<td>2,439</td>
<td>0.7</td>
</tr>
<tr>
<td>Neurological surgery</td>
<td>94</td>
<td>143</td>
<td>52.1</td>
</tr>
<tr>
<td>Obstetrics/gynecology</td>
<td>1,191</td>
<td>1,214</td>
<td>1.9</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>366</td>
<td>398</td>
<td>8.7</td>
</tr>
<tr>
<td>Orthopaedic surgery</td>
<td>604</td>
<td>634</td>
<td>5.0</td>
</tr>
<tr>
<td>Otolaryngology</td>
<td>188</td>
<td>269</td>
<td>43.1</td>
</tr>
<tr>
<td>Plastic surgery</td>
<td>162</td>
<td>187</td>
<td>15.4</td>
</tr>
<tr>
<td>Thoracic surgery</td>
<td>131</td>
<td>99</td>
<td>-24.4</td>
</tr>
<tr>
<td>Urology</td>
<td>177</td>
<td>214</td>
<td>20.9</td>
</tr>
<tr>
<td>Vascular surgery</td>
<td>91</td>
<td>119</td>
<td>30.8</td>
</tr>
<tr>
<td>Family practice</td>
<td>3,196</td>
<td>3,102</td>
<td>-2.9</td>
</tr>
<tr>
<td>Internal medicine</td>
<td>8,129</td>
<td>8,635</td>
<td>6.2</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>2,517</td>
<td>2,697</td>
<td>7.2</td>
</tr>
</tbody>
</table>

who provide services in designated areas

- Allow surgeons access to Medicare’s disproportionate share program, currently restricted to hospitals, when they operate on patients they see in the emergency department or as a result of care provided under the requirements of the Emergency Medical Treatment and Active Labor Act (EMTALA)
- Provide tax relief to surgeons who perform EMTALA-related care, which could be based on overhead costs as related to the Medicare physician fee schedule
- Adjust Medicare practice expense pools for each specialty to account for uncompensated care related to emergency department or EMTALA-related care as is done for emergency medicine
- When hospitals pay stipends to surgeons who take emergency call, Medicare should recognize these costs as is currently done for critical access hospitals
- Provide liability reform for surgeons who perform EMTALA-related care
- Expand the Federal Tort Claims Act to include surgeons who provide services to patients who are referred through their primary care physician at a community health center

Finally, Congress is well aware that unpredictable and unreliable reimbursement exacerbates workforce challenges. The ACS will continue to strongly advocate for Medicare physician payment reform.

Although not all of the solutions to the surgical workforce crisis can be solved with legislation, the College is working hard to develop legislative solutions wherever possible. Achieving the goals set in the ACS Statement on Health Care Reform as well as the solutions mentioned in this article will go a long way toward addressing the causes of the surgical workforce crisis on the federal level.

State-level fixes

Surgical workforce issues are receiving greater attention in the states these days. Physician shortages, especially those in small communities or rural areas, have forced state policymakers and medical societies to assess the intensity of the problem and, in some cases, consider potential solutions.

At least 22 states have sought to study the workforce issue in recent years. In some cases, the focus of these studies has been on the shortage of primary care physicians, with less attention to specialty shortages. Other studies provide a more balanced review of the availability of physicians regardless of specialty. All of them, however, conclude that their respective states are experiencing or will experience a shortage of physicians.

Standard solutions reflect the following themes:

- Build more medical schools to increase the number of medical students with concurrent increase in residency training slots
- Recruit physicians to practice in the state
- Expand loan payment assistance and scholarship programs
- Create incentive programs for physicians to establish practice in rural areas

The following sampling of how states have engaged in addressing physician workforce issues can give a broad overview of the problem.

Colorado

In 2005, the Colorado Health Institute conducted a survey of physicians as part of the licensure renewal process. The intent was to collect, analyze, and disseminate Colorado physician workforce data to determine the age distribution of responding physicians, factors weighed in selecting with practice locations, primary care availability, and time spent in direct patient care. Colorado reflects national trends in these areas, including pending shortages of primary and specialty care. The report is available at [http://www.coloradohealthinstitute.org/resourcePublications/publications.aspx](http://www.coloradohealthinstitute.org/resourcePublications/publications.aspx).

Connecticut

The Connecticut State Medical Society conducted a physician workforce survey in 2008 with the following intentions:

- Assess Connecticut physicians’ satisfaction with their careers in medicine and their lives as physicians
Identify problems associated with the supply of physicians in certain specialty areas in the state, determine possible causes of those problems, and assess their potential effect on patient access to care.

Examine the professional liability environment in Connecticut and assess its relationship to practice patterns and patients’ access to care.

Determine physician opinions on health care reform and, specifically, initiatives to improve access to medical care.

Measure the use of technology in Connecticut physicians’ practices.

The survey revealed that 19 percent of the 1,077 respondents are contemplating a career change, and 10 percent plan to move their practice outside of the state because of the practice environment. Work-hour increases have occurred for 47 percent of the respondents over the past three years, with urologists, neurosurgeons, and oncologists indicating they have increased their work hours substantially.


Florida

In early 2008, Joseph Tepas, MD, FACS, and Resident Member Darrell Graham, MD, undertook a more limited workforce survey, with 15 practicing surgeons from the ACS Jacksonville Chapter and 65 from the Florida Chapter—representing most of the general surgeons in Jacksonville and approximately 25 percent of the available general surgeons in the Florida Chapter of the ACS—participated. Highlights of the study are as follows:

- Within 10 years, half of the respondents will have retired from practice and will no longer be taking call.
- More than half of the “senior” practitioners who have been taking emergency call and who plan to retire within 10 years are taking call on average five nights per month.
- Approximately 30 percent of the surgeons who have been established in Florida for less than 10 years are working more than 10 nights of call per month.
- Whereas some level of call stipend is provided, it is not uniform and those who receive it believe it is an inadequate reflection of the responsibilities of emergency room support.

Following initial review of the completed surveys, Drs. Tepas and Graham asked every state legislator (senators and representatives) to complete a brief survey indicating their awareness of surgical workforce/on-call problems and their recommended solutions. Very few responded, and of those who did, most thought there was not an immediate concern in their districts. To request a copy of this survey, contact Dr. Tepas at Joseph.Tepas@jax.ufl.edu.

Georgia

The state government and the Medical Association of Georgia have written a number of workforce reports over the past few years. In fact, for many years, there has been a state agency, the Georgia Board for Physician Workforce (GBPW), focused on these issues. The GBPW is responsible for advising the governor and the general assembly on physician workforce and medical education policy and issues. The 15-member board works to identify the physician workforce needs of Georgia communities and to meet those needs through the support and development of medical education programs. Specific responsibilities include monitoring and forecasting the supply and distribution of physicians in Georgia; ensuring an adequate supply, specialty mix, and geographic distribution of physicians to meet the health care needs of Georgia; coordinating physician workforce planning with state funding for medical education; and the development and support of medical education programs required to meet physician workforce needs.

In October 2006, the GBPW released Update on Georgia’s Physician Workforce, Follow-Up Report to Is There A Doctor In The House? The update discussed significant physician workforce issues facing the state including the aging of the population along with rapid population growth, minimal or negative growth in critical specialties such as obstetrics/gynecology, a state of decline in general surgery, and continued growth in medical education debt. On the medical education issue, the report recommended that the state build sufficient capacity in all
levels of the medical education system and ensure adequate funding for medical education.

To access a copy of this report or use the GBPW physician database, visit http://gbpw.georgia.gov/02/gbw home/0,2515,49259818,00.html.

Massachusetts

The Massachusetts Medical Society has been conducting annual physician workforce studies since 2002. These surveys provide a snapshot of the practice environment in the state. Some interesting findings in the 2008 study of almost 1,100 physicians include the following:

- 42 percent of practicing physicians are considering a career change
- 18 percent of physician respondents are considering a move out of the state if the practice environment does not change
- 55 percent report that the amount of time needed to recruit physicians has increased, and 40 percent say that retaining existing physician staff had become more difficult
- More than 70 percent of physician respondents report difficulty in referring patients to specialists

The studies have also yielded a running scorecard by year of the specialties classified as facing critical or severe shortages. In 2008, specialties facing severe shortages included dermatology, emergency medicine, general surgery, neurology, neurosurgery, oncology, orthopaedics, psychiatry, urology, and vascular surgery. Specialties classified as in critical shortage included family medicine and internal medicine. The 2008 study is available at http://www.massmed.org/AM/Template.cfm?Section=Research_Reports_and_Studies.

State legislatures in 2009

A quick review of state legislative activity at the end of February indicated that only one state—Hawaii—is considering legislation this year that would directly address physician workforce issues. The Hawaii bill was introduced to assess a separate $60 physician workforce assessment fee at the time of renewal of medical licenses. Funds collected will be deposited to the John A. Burns School of Medicine special fund to support activities related to physician workforce assessment and planning. Some of these activities would include maintaining accurate physician workforce assessment information and providing or updating personal and professional information maintained in a secure database. At press time, the bill was still in committee in the state senate.

That only one state is considering legislation related to physician workforce issues is likely related to the fact that many state legislatures are dealing with severe budget shortfalls (at least partly as a result of exploding Medicaid costs) and are waiting to see what actions Congress takes toward health system reform. It does not, however, mean that state legislatures are not concerned about the issue; rather, it reflects the very serious impact the economy is having on the states.

Conclusion

Repairing the surgical workforce shortage will require considerable political will. Many of the solutions the College has identified are large in scope and envelop the structure of our health care system and the interests of many stakeholders. Certainly, it is time for policy researchers and policymakers to begin addressing these difficult issues, bearing in mind that no stakeholder has more to lose than the surgical patient.
References


Abbreviations and acronyms used in this article

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
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<tbody>
<tr>
<td>ACA</td>
<td>Affordable Care Act</td>
</tr>
<tr>
<td>CMS</td>
<td>Centers for Medicare &amp; Medicaid Services</td>
</tr>
<tr>
<td>HPSAs</td>
<td>Health Professional Shortage Areas</td>
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<tr>
<td>HSIP</td>
<td>HPSA surgical incentive payment</td>
</tr>
<tr>
<td>NPI</td>
<td>National provider identifier</td>
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**Section 5501(b) of the Affordable Care Act (ACA) authorizes a Medicare incentive payment program for major surgical procedures provided by general surgeons in Health Professional Shortage Areas (HPSAs). This article summarizes this new initiative, called the HPSA Surgical Incentive Payment (HSIP) program.**

**What is the HSIP Program?**

The HSIP program applies to major operations, defined as 10-day and 90-day global procedures, provided on or after January 1, 2011, and before January 1, 2016, by a general surgeon in an area designated as a HPSA. “General surgeons” are defined as surgeons who are enrolled in Medicare with a primary specialty code of 02 (General Surgery) identified by his or her National Provider Identifier (NPI).

To qualify for the bonus, the operation itself must be performed in a HPSA. For example, a physician office visit in a HPSA or the provision of any service other than the major operation in the HPSA will not be eligible for the HSIP bonus (although non-major surgical services provided in a HPSA could qualify for the HPSA physician bonus, a separate incentive program which is described later in this article).

**How much is the bonus amount and when will I receive it?**

The HSIP applies an additional 10 percent of the payment for physicians’ professional services under Medicare Part B for major surgical procedures performed in a HPSA. Medicare contractors will compute the reimbursement total and pay general surgeons an additional 10 percent of the amount actually paid for the service, not of the Medicare approved payment amount. Claim adjustment reason code “LE” will identify the incentive payment as noted on the special remittance generated with the incentive payment. The ACA provides for payments to be made quarterly.

I am already receiving the HPSA physician bonus. Can I receive both the current HPSA physician bonus and the HSIP bonus for major surgical procedures performed in a HPSA?

Yes. The HSIP bonus payment is an additional bonus for major surgical procedures, without regard to other Medicare incentive payments. Before the implementation of the HSIP bonus payment, the Centers for Medicare & Medicaid Services (CMS) implemented the HPSA physician bonus. The HPSA physician bonus provides a 10 percent bonus payment to all physicians who furnish health care services in areas that are designated as geographic primary care HPSAs.
In addition, psychiatrists furnishing services in geographic mental health HPSAs are also eligible for 10 percent bonus payments on such services. On the other hand, the new HSIP bonus payment provides an additional 10 percent for major surgical procedures performed in a geographic primary care or mental health HPSA. This provision means a general surgeon may receive a 10 percent HPSA physician bonus payment under the already established Medicare HPSA physician bonus program, in addition to a HSIP 10 percent bonus under the new HSIP program that started on January 1, 2010.

What do I have to do to receive the HSIP bonus?

The following steps can help physicians determine whether they are eligible for the HSIP bonus and, if so, how to receive the bonus from CMS:

1. Determine whether the physician provides services in a HPSA. The HSIP bonus payment only applies to major operations performed in primary care or mental health geographic HPSAs. To find out if a physician practices in a primary care or mental health geographic HPSA, go to http://datawarehouse.hrsa.gov/GeoAdvisor/ShortageDesignationAdvisor.aspx.

Note: The major operation must be performed in a primary care or mental health geographic HPSA. Other types of HPSAs also exist, namely population group and facility-based HPSAs, but only primary care and mental health geographic HPSAs are used to determine eligibility for the HSIP bonus payment.

2. Determine whether the physician already receives automatic payment under the HPSA physician bonus program. Each year, CMS publishes a list of zip codes for automatic payment of the HPSA physician bonus payment at http://www.cms.gov/HPSAPSAPhysicianBonuses/01_overview.asp. CMS will use this same list of zip codes for automatic payment of the HSIP incentive payment.

   • If the physician provides services in a zip code that is listed for automatic payment, then no further action is required. The physician is already receiving the previously established HPSA bonus payment, and will automatically receive the new HSIP program’s additional 10 percent bonus on major surgical procedures performed in a zip code listed at the CMS website above.

   • If a physician provides services in an area that is not on the list of zip codes for automatic payment, yet has been designated as a HPSA by December 31 of the preceding calendar year, he or she should append modifier “AQ” to the Medicare claim for major operations performed in that HPSA. These areas are often in zip codes that are only partially designated as HPSAs, such as zip codes that partially include urban areas. In these cases, the entire zip code cannot be eligible for automatic payment, but major surgical procedures provided in the HPSA portion of the zip code are still eligible for the 10 percent HSIP bonus (in addition to the HPSA bonus payment). The use of the AQ modifier is consistent with the current process for payment of the original HPSA physician bonus when the HPSA is not located in a zip code identified for automatic payment.

Note: Do not append the AQ modifier to claims for major surgical procedures performed in a zip code eligible for automatic payment. Based on a conversation that the American College of Surgeons (ACS) regulatory staff had with a representative from CMS, adding the AQ modifier to such claims will disrupt the automatic payment process and will cause a delay in reimbursement.

In addition, if the claim is submitted by a physician group or practice, the NPI of the physician who provided the major surgical procedure must be included on the line-item for the major surgical procedure in order for a determination to be made.
made regarding whether the procedure is eligible for payment under the HSIP program.

How did this new HSIP general surgery bonus payment program originate?

The concept of a bonus payment to promote general surgery in rural and other underserved areas is one that the ACS staff promoted during the early discussions about health care reform with Senate Committee on Finance advisors. Due to the fact that the Chairman of the Senate Committee on Finance is Sen. Max Baucus (D-MT), from a rural state facing surgeon shortages, the Senate Committee on Finance staff members have been sympathetic to the College’s concerns about a diminishing number of general surgeons in rural and frontier areas. In April 2009, the ACS advocacy staff met with Senate Committee on Finance advisors to propose legislative language with the purpose of encouraging general surgeons to provide surgical care in areas where there is a general surgery workforce shortage. These discussions led to the inclusion of the HSIP provision in the ACA, which establishes the bonus payment to general surgeons for major procedures performed in geographic HPSAs between January 1, 2011, and January 1, 2016.

Where can I read more?

Graduate Medical Education
The critical state of graduate medical education funding

by Ian Metzler; Karan Ganjawalla; Krista L. Kaups, MD, MSc, FACS; and John G. Meara, MD, FACS
Medicare provides insurance coverage to elderly and disabled Americans and it also supports graduate medical education (GME). In 2009, Medicare paid $9.5 billion to teaching hospitals for resident training—$3 billion to cover direct costs of approximately 100,000 residency positions and $6.5 billion for the indirect costs of patient care associated with resident training.\(^1\)

Given the current budget constraints and economic recession, federal financial support for GME is under greater scrutiny, and in the past five years, legislators have sought to reduce GME funding.\(^2\) Last year, the Joint Select Committee on Deficit Reduction proposed GME budget cuts of 50 percent in early versions of the Budget Control Act of 2011. Although these drastic cuts were omitted from the final bill, the automatic funding reductions scheduled to occur will result in across-the-board cuts. Medicare, biomedical research, and other health care expenditures, including GME, are expected to see a 2 percent cut due to the sequestration.\(^3\) Deficit reduction is still a high-acute political goal, and the potential for further cuts to GME remains a concern.

Compounding the tension about GME funding is the growing shortage of physicians, particularly in primary care and general surgery. The American Association of Medical Colleges (AAMC) projects a physician shortage of 62,900 physicians in the U.S. by 2015 due to the increased medical care needs of an aging population and a growing number of people who will be insured under the Affordable Care Act of 2010 (ACA).\(^4\) Without an increase in the number of training positions and funding for GME, many medical graduates will be unable to complete the training required to practice independently and therefore will not be in a position to meet the expanding health care demands of the U.S. population.\(^4\)

**Current funding streams**

Before Medicare, hospitals funded GME. During Medicare’s implementation, legislators believed that society at-large would eventually find other means to bear the costs of GME.\(^1\) Despite attempts to establish long-term alternative sources of support for more than a decade, no policy has significantly addressed Medicare funding for GME, and Medicare remains the primary formal
Compounding the tension about GME funding is the growing shortage of physicians, particularly in primary care and general surgery.

financier of these programs, contributing 72 percent of all tax-financed support. Other federal payors include Medicaid (11 percent), the U.S. Department of Veterans Affairs (10 percent), the U.S. Department of Defense (3 percent), and the Bureau of Health Professions (3 percent). State and local governments also finance GME programs, but specific amounts vary widely.

Teaching institutions may fund GME activities and infrastructure through various informal sources as well. Tracking GME financiers is difficult because educational infrastructure is often paid through the teaching hospital’s general revenues or grants for research, not funds specifically designated for education. It is through this general revenue stream that private insurers provide unofficial, indirect support of GME through individually negotiated payments to teaching hospitals.

• Medicare
The federal government, primarily through Medicare, subsidizes training programs through direct and indirect payment methods. In 2009, Medicare allocated approximately $3 billion in direct graduate medical education (DGME) payments and $6.5 billion in indirect medical education (IME) payments, averaging out to more than $100,000 per resident per year. Both DGME and IME payments are hospital-specific, based on the institution’s share of Medicare patients and the resident-to-bed ratio as a measure of teaching intensity. See Table 1, page 256, for a summary of DGME and IME funding streams.

Under Medicare, GME has been viewed as a “public good” deserving billions of dollars from state and federal public funds. However, some analysts claim that Medicare distributes this funding with insufficient accountability for the proportion and quality of medical specialists produced. Relatively little information is available about what it truly costs participating hospitals to train residents or where the funds are specifically directed in their organization. Without accountability, teaching hospitals have been primarily focused on their individual workforce needs and more profitable specialties. Structured as it is, the current system of funding does not incentivize programs to train physicians for broader public interests or evaluate meaningful outcomes of their graduates.
The number of GME-funded positions has been stable since 1997, when it was capped by the Balanced Budget Act (BBA). The cap was included because organizations at the time predicted an oversupply of physicians, so they wanted to limit spending and align the number of GME positions to the number of U.S. medical graduates. Further funding modifications were made in 1999, 2000, and 2003 to reduce the IME payment to its current factor (see Table 1).

### Medicaid

Although there are no federal requirements that Medicaid programs contribute to GME, it remains the second largest funder of these programs. Most Medicaid programs have appropriated funding for GME with direct and indirect payments structured similarly to Medicare. Medicaid explicitly paid an estimated $3.78 billion for GME programs in 2009. With no requirement for states to provide for GME, recent economic instability and budget constraints have led to a significant reduction in the number of states making Medicaid payments to GME programs. In 2005, a total of 47 states provided GME support of $3.18 billion through Medicaid, representing 6.6 percent of the program’s inpatient hospital expenditures. By 2011, Arizona, Massachusetts, Montana, Rhode Island, Vermont, and Wyoming stopped making payments to GME. Nine additional states—Michigan, Missouri, Nebraska, Nevada, New Hampshire, New Mexico, Oklahoma, Oregon, and Pennsylvania—have considered ending Medicaid payments to GME. Many others, including Florida and Washington, have decreased funding in the last few years. Based on a 50-state survey, the AAMC expects these cuts in GME funding to continue as states face ongoing fiscal pressures.

### Private insurers

Private insurers support GME through higher payments negotiated with teaching hospitals; however, the actual amount is difficult to calculate, as the proportion of these payments that is attributed to education is not specifically identified. Due to numerous private contracts and the respective bargaining power of providers and private insurers, these contributions are highly variable. Private insurers are expected to cover the proportion of GME for their own patients; however, no policy has mandated funding from the private sector. The financing from private insurers has no connection with the amount of work residents do for insurers’ beneficiaries because residents do not charge for services. A study at one teaching hospital estimated that the amount of services residents provide to privately insured patients would have yielded $232,726 of revenue annually.

### Predicted shortages

In the past decade, 62 reports have identified physician shortages in underserved areas and in many specialties. The AAMC estimates that the overall deficit of physicians will reach 62,900 by 2015, of which 29,800 will be in primary care. The predicted shortage will result from the GME system’s inability to train enough residents to keep up with the rate of retiring physicians or meet the growing demand for health care access. It is important to keep in mind that not only is the U.S. population continuing to expand, but the ACA now guarantees insurance for every American, and some experts doubt that the current system can cope with the influx of newly insured patients.

Shortfalls in the workforce have nothing to do with waning interest in meeting the nation’s growing health care needs. The number of U.S. medical school graduates has continued to rise due to increas-

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### Table 1.

**EXPLANATION OF MEDICARE’S DIRECT AND INDIRECT FUNDING STREAMS FOR GME**

<table>
<thead>
<tr>
<th>Recipient</th>
<th>DIRECT GME</th>
<th>INDIRECT GME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents and residency programs</td>
<td>Covers resident stipends and fringe benefits</td>
<td>Adds on to Medicare’s prospective payments</td>
</tr>
<tr>
<td></td>
<td>Pays salaries of supervising faculty</td>
<td>Paid directly into hospital general revenues</td>
</tr>
<tr>
<td></td>
<td>Subsidizes educational overhead costs</td>
<td>Subsidizes the capital costs and inefficiencies of running educational programs</td>
</tr>
<tr>
<td><strong>Calculation</strong></td>
<td>A hospital-specific per resident payment applied to Medicare’s share of inpatient days</td>
<td>A logarithmic formula which results in a 5.5% higher Medicare payment for every 0.1% increase in the resident-to-bed ratio</td>
</tr>
<tr>
<td><strong>Amount</strong></td>
<td>$3 billion in 2009</td>
<td>$6.5 billion in 2009</td>
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Several independent governmental and non-governmental organizations that have issued recommendations about how the federal government, through Congress, should restructure Medicare’s contribution to GME to lower costs and encourage rational strategies in training the physician workforce.

The U.S. Department of Health and Human Services’ (HHS) Council on Graduate Medical Education (COGME) is responsible for “an ongoing assessment of physician workforce trends, training issues and financing policies,” and recommends “appropriate federal and private sector efforts to address identified needs.” COGME is composed of 17 representatives from primary and specialty practices, student associations, teaching hospitals, health insurers, and businesses. In December 2010, COGME focused on primary care and recommended that GME payment and accreditation policies be restructured to produce “a physician workforce that is at least 40 percent primary care” by encouraging outpatient training, specifying GME positions for primary care, and maintaining Medicare funding for primary care residency programs. It also briefly stated that funding for GME should involve both governmental and non-governmental sources, but did not specify how this goal should be achieved.

The Medicare Payment Advisory Commission (MedPAC) advises Congress on overall Medicare spending. From 2007 to 2009, the 17 members of MedPAC recommended that Congress reduce Medicare’s IME payments after an analysis found that only 45 percent of the IME payments can be analytically justified to cover the higher costs of Medicare inpatient care. In June 2010, MedPAC unanimously voted to recommend cutting $3.5 billion in annual IME payments by reducing the IME payment calculation from 5.5 to 2.2 percent. The commission explicitly expressed concern about the physician workforce mix and recommended that education and training programs focus on incorporation of evidence-based medicine, team-based care, and shared decision making. To encourage action toward these goals, MedPAC recommended: (1) increasing accountability and pay for performance; (2) public disclosure of Medicare payment and teaching costs; and (3) analysis of workforce data.

In response, the House Energy and Commerce Subcommittee on Health convened a hearing and questioned the feasibility of redirecting IME pay-
Because many of the funding streams that support GME flow into the general revenues of teaching hospitals, it’s difficult to know what amounts are used for education.

ments when hospital budgets already are stretched thin and demands for quality of care are on the rise. The AAMC determined that the MedPAC reductions in IME would have resulted in a loss of 72,600 jobs and $653 million in state and local revenues, costing the U.S. economy a total of $10.9 billion. Congress did not pursue the reduction in IME payments.

The bipartisan National Commission on Fiscal Responsibility and Reform (NCFRR), created in 2010, issued a report that called for bringing Medicare’s GME payments in line with the costs of medical education by limiting hospitals’ DGME payments to 120 percent of the national average salary paid to residents in 2010. In the report, the commission also concurred with MedPAC that the IME payments should be reduced to 2.2 percent. The proposal fell short of the 14 votes needed for formal endorsement and House and Senate consideration. According to MedPAC, the NCFRR proposal would have cut federal expenditures in GME by $6 billion by 2015 and $60 billion by 2020.

In March 2011, the U.S. Congressional Budget Office (CBO) analyzed a proposal that consolidated all GME funding streams into one direct payment to teaching hospitals and reduced the indirect portion of funding by more than half. The CBO projected that this move would save $69 billion over 10 years. However, the CBO also noted that this proposal would result in the following: lower compensation for residents, IME payments growing more slowly than inflation, fewer education-directed activities, and less care for the uninsured. States would also lose discretion over the portion of GME that previously came from Medicaid. Ultimately, Congress did not pursue this proposal, to the relief of many in the health care community.

The Institute of Medicine (IOM) played an important role in GME policy debates with its influential 2001 report, Crossing the Quality Chasm, which provided a vision for GME by addressing workforce, compensation schemes, quality, safety, and responsiveness of the health care system.

In December 2011, seven senators requested that the IOM study the governance and financing of GME to address the significant concern of health care. The letter notes the inadequacy of medical training to meet the nation’s medical needs, and the need for high-quality, low-cost health care. It calls explicit attention to the following issues: accreditation, reimbursement, workforce supply, geographic distribution of physicians, care of the underserved, access, and maintenance of an appropriately skilled workforce. The Macy Foundation recently awarded the IOM $750,000 to research these problems.

Unsuccessful proposals for GME reform

Two bills were proposed in 2001 that attempted to solicit more consistent and equitable contributions to GME programs from private payors. The All-Payer Graduate Medical Education Act was introduced by Rep. Ben Cardin (D-MD) and would have established a trust fund for private payors to contribute a 1 percent assessment of private insurance premiums. These contributions, estimated to total approximately $4 billion, would then be used to make DGME and IME payments. Medicare would continue its DGME payments; however, the IME payment add-on ratio would be determined by the proportion of Medicare revenues to total revenues instead of the proportion of Medicare inpatient days. The inclusion of private payor GME payments would have reduced Medicare’s IME payment factor from 5.5 to 4.8 percent. A similar bill, the Medical Education Trust Fund Act, was introduced by Sens. Jack Reed (D-RI) and Hillary Clinton (D-NY). Their proposal had all private payors contribute a 1.5 percent assessment on premiums to a trust fund. Medical schools and teaching hospitals would apply for these funds through the Secretary of HHS. Health insurers strongly opposed both of these bills, which ultimately failed in Congress.

The original ACA legislation called for an additional $230 million in funding to support GME training of primary care physicians at community health centers. However, on May 25, 2010, the House voted 234 to 185 to eliminate this additional funding despite numerous reports projecting an increased demand for more health care providers. Ultimately, the ACA succeeded in establishing the Primary Care Residency Expansion Program, which provides $80,000 for resident positions designated for primary care, even if the number of total positions exceeds the training program’s GME cap. The ACA also increased funding for the National Health Service Corps to $1.15 bil-
lion and allowed residency programs to count outpatient training experiences toward GME payments.\textsuperscript{15}

In response to growing national debt and political disagreement about whether to extend the U.S. debt ceiling, the Budget Control Act of 2011 established a Joint Select “Super” Committee on Deficit Reduction, which was intended to devise a bipartisan solution to balance the federal budget. Cuts to Medicare GME funding were in early versions of the Budget Control Act, but were ultimately dropped. Due to the inability of the Joint Select Committee to reach a consensus on budget cuts by November 23, 2011, an automatic sequestration will, by default, result in a $1.2 trillion cut in federal discretionary spending over 10 years.\textsuperscript{4} Medicare, research, medical education, and other health care expenditures, including GME, are expected to see a 2 percent cut as a result of the sequestration.\textsuperscript{3} However, with previously proposed GME budget cuts of 50 percent receiving serious consideration from federal legislators, the potential for further cuts to GME remains a real concern.\textsuperscript{25}

In an effort to reduce federal expenditures, the Obama Administration’s 2012 budget proposal eliminated annual funding of $317 million, which had been earmarked to support pediatric GME training.\textsuperscript{26} The justification for this proposal centered on the view that dedicated children’s hospitals should not receive Medicare funding because children do not qualify for Medicare coverage. However, a bipartisan vote by the House Energy and Commerce Committee extended the pediatric GME program for five more years.\textsuperscript{2} In the 2013 budget proposal, the Obama Administration again pushed to remove support for pediatric GME training, this time proposing to cut $88 million. Furthermore, the 2013

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<thead>
<tr>
<th>CATEGORY</th>
<th>DEFINITION</th>
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<tbody>
<tr>
<td>Equity</td>
<td>Those that bear the cost of the activities should receive benefits that are proportional to their contributions. Funding should be distributed to meet current and future needs of the entire population.</td>
</tr>
<tr>
<td>Adequacy</td>
<td>An adequate system must provide funding to support the training needs of a high-quality physician workforce. Stable funding should be available to allow teaching programs to invest in high-quality training programs.</td>
</tr>
<tr>
<td>Efficiency</td>
<td>An efficient system must encourage effective educational programs at an economical price. Funding must adequately subsidize educational activities so that teaching institutions remain fiscally solvent.</td>
</tr>
<tr>
<td>Accountability</td>
<td>An accountable system must directly demonstrate the efficacy of resource allocation to achieve desired goals. Funding recipients should be held accountable for producing a workforce to meet the needs of the public with respect to the supply, specialty mix, and geographic distribution.</td>
</tr>
<tr>
<td>Administrative feasibility</td>
<td>A feasible system must ensure that its administrative burdens and costs do not outweigh its associated benefits.</td>
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*Adapted from RAND Working Paper: Alternative Ways to Finance Graduate Medical Education.\textsuperscript{7}
GRADUATE MEDICAL EDUCATION

GRADUATE MEDICAL EDUCATION

REFERENCES


continued on next page

budget proposal called for cuts to Medicare’s IME payments at all hospitals, advocating a reduction of $9.7 billion over 10 years and encouraging more HHS oversight.22

A way forward for GME reform
The IME component of GME funding is based on the assumption that the education process creates inefficiencies at teaching hospitals—inefficiencies that make them less competitive in the marketplace relative to other hospitals.7 However, the research does not support this assumption, and the extent to which uncompensated educational activities outweigh the work residents do for hospitals is unclear. MedPAC estimated that only 45 percent of the IME payments can be analytically justified.8 Medicare and Medicaid should fund studies to estimate the degree to which the IME payments are required and whether they vary by institution and specialty. It is essential that teaching hospitals be fairly compensated for the public good of training future physicians.

Under the current GME system, Medicare and Medicaid’s contributions are transparent because funding is provided using a formulaic approach based on public data. However, it is unclear how recipient programs use these funds because the internal system for distributing DGME and IME funding varies by institution. Because many of the funding streams that support GME flow into the general revenues of teaching hospitals, it’s difficult to ascertain what amounts are used for education. No mechanisms exist to hold residency programs accountable for their GME spending, so Medicare and Medicaid have no way to influence how the funding is used. Tracking performance measures and outcomes for each program, such as the number of graduates who enter undersupplied specialties and practice in rural settings, is a good first step toward ensuring the maximum public benefit.

However, to encourage priority programs, Medicare and Medicaid must take a second step and divorce GME funding mechanisms from patient payments. Under the current system, GME payments to teaching hospitals depend solely on the number of residents and the percentage of patients with Medicare or Medicaid. Hospitals are rewarded for the quantity
To encourage accountability and create incentives to align the current training system with public demands, all stakeholders invested in GME must be actively involved in its financing.

of residents and publically funded patients, not for the quality of their educators or their graduates’ ability to meet future workforce needs. Training programs must be held accountable for their performance and GME funding needs to be specifically designated for training purposes.

In light of recent legislative proposals to cut GME funding and the reductions proposed by the Obama Administration, the GME system cannot continue to rely solely on federal funding; alternatives must be considered. To encourage accountability and create incentives to align the current training system with public demands, all stakeholders invested in GME must be actively involved in its financing (see figure, page 259). Every stakeholder has a different perspective and agenda, but all are invested in having a functioning health care system staffed by well-trained physicians and should support GME in some form.

An effective conceptual framework must drive the creation and evaluation of GME funding alternatives. In 2006, HHS commissioned the Research and Development (RAND) Corporation to investigate the current GME system and establish one such framework. The mechanism RAND developed uses five critical measures: equity, adequacy, efficiency, accountability, and administrative feasibility (see Table 2, page 259). Overall, the RAND analysis revealed that Medicare’s most appropriate way forward was to continue IME support of teaching hospitals to compensate for higher patient care costs, but to shift responsibility for DGME payments to a separate federal organization dedicated to funding residency activities so that payment would not be tied to service use. RAND team members also stated that funding residency programs directly would foster accountability and provide a method for federal funders to align their payments with public health priorities.

**Conclusion**

The role of Medicare and Medicaid in GME has been a longstanding source of debate. The BBA caps, a significant reduction in state support, and recent legislative cuts to GME have made the state of GME funding more precarious than ever. Further reductions may severely impair the ability of the GME system to continue to train future physicians. Training more physicians to

**REFERENCES (CONTINUED)**


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serve an increasing elderly population and the millions that will be newly insured by 2014 will require more support from all stakeholders, including federal and state governments. The rapid expansion of medical school capacity to meet health care demands, without proportionally increasing GME spots, adds further pressure to an already strained physician workforce and would disregard educational investments U.S. medical school graduates have made.

With further cuts looming and the mission of increasing training spots to meet current and future demands, GME faces a very real crisis. These competing agendas should serve as a signal to the medical community that the current GME funding policy is unsustainable. Previous proposals have attempted to address this problem by distributing the burden of GME financing to private stakeholders through the all-payer trust fund. However, reducing federal contributions without adequately assessing the costs of training and ability of other stakeholders to contribute has been unsuccessful. The use of a conceptual framework will allow for a structured analysis as various solutions for GME reform are proposed. With a clear understanding of costs, effective allocation of resources may create a more efficient GME system.

With the input and consideration of various groups, relationships between payors and beneficiaries can help guide the creation of a fair, equitable system. To ensure the sustainability of U.S. health care, the GME system must continue to produce a high-quality physician workforce trained to address the growing needs of the public in a way that does not overburden any stakeholder. ♦

REFERENCES (CONTINUED)
