



TRENDWATCH

The Cost of Caring: Drivers of Spending on Hospital Care

Advances in health care have helped people live longer, healthier lives. In 2007, American life expectancy at birth reached 77.9 years, the longest in our history.¹ However, this progress also has been accompanied by increases in health care spending that many view as unsustainable.

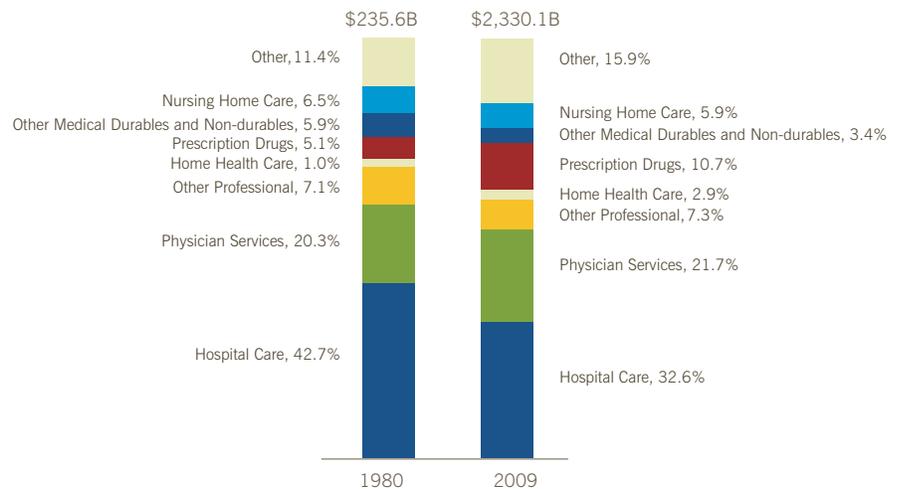
Hospital care as a percent of total spending on health care services and supplies has actually declined from 43 percent in 1980 to 33 percent in 2009,² even as health spending overall has continued to rise. Growth in spending on hospital care has lagged behind growth in health insurance premiums,³ pharmaceuticals, and other services.⁴ In particular, health insurance premium growth has outpaced total spending on health care services, with premiums for employer-sponsored family coverage more than doubling over the past decade.⁵

Yet, hospital care remains the largest single category of health care spending, illustrating hospitals' central role in providing care for the most acutely ill and injured patients. Understanding the drivers of spending is critical to shaping health care policies that will moderate cost growth without compromising quality or slowing the pace of innovation.



Hospital care is shrinking as a share of total health care spending.

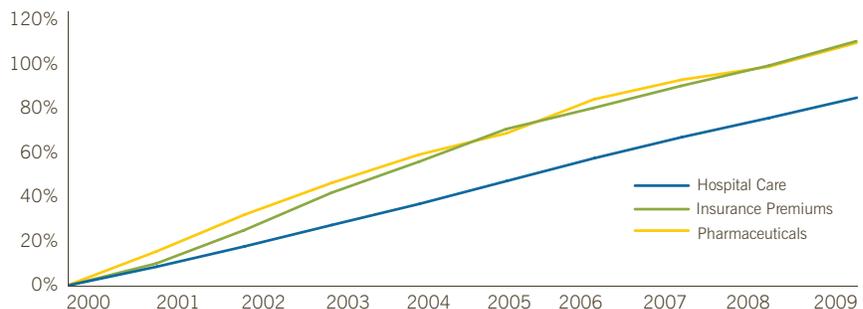
Chart 1: National Expenditures for Health Services and Supplies by Category, 1980 and 2009



Source: Centers for Medicare & Medicaid Services, Office of the Actuary. Data released January 6, 2011.

Spending on hospital care has lagged growth in health insurance premiums and pharmaceuticals.

Chart 2: Cumulative Percentage Change in National Spending for Hospital Services, Health Insurance Premiums⁽¹⁾ and Pharmaceuticals, 2000-2009



Sources: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group. (2011). *National Health Expenditures Aggregate, Per Capita Amounts, Percent Distribution, and Average Annual Percent Growth, by Source of Funds: Selected Calendar Years 1960-2009*, and The Kaiser Family Foundation and Health Research & Educational Trust. (2009). *Employer Health Benefits: 2009 Annual Survey*. Washington, DC.

(1) Average annual premiums for family coverage.

Expanding Treatment Capabilities Leads to Better Outcomes, but Drives Up Demand for Care and the Cost of Each Service

Medical advances such as new procedures, devices, imaging technology and pharmaceuticals have enabled Americans to live longer. They also contribute to national economic growth by helping Americans recover more quickly from injury and illness, avoid lost or unproductive work time due to flare-ups of chronic conditions, and live longer with a higher quality of life. For example, workers with Type 2 diabetes who are able to control their diabetes through new pharmaceutical options have reduced absenteeism,⁶ and new drugs to treat high blood pressure saved an estimated 86,000 lives among those 40 years of age and older in one year alone.⁷

While medical advances clearly bring great benefits to patients and our economy, they can add to the demand for services and the cost of providing each service. According to Congressional Budget Office (CBO) estimates, approximately 50 percent of the rise in health expenditures over the past several decades is due to advances in technology.⁸

For instance, less invasive options for cardiac care, such as cardiac catheterizations, coronary artery bypass and angioplasties with stents, have emerged over the past few decades. Approximately 70 percent of the improvement in survival among heart attack patients is attributable to these types of technological advances.⁹ However, new technologies also bring new costs: the average spending per heart attack case rose from \$12,083 in 1984 to \$21,714¹⁰ in 1998.¹¹

At the same time, these new surgical techniques and treatments also can facilitate, and even hasten, employees' return to work. In one study, more than 50 percent of individuals employed prior to cardiac surgery after a heart attack returned to work after one month, and nearly 78 percent of patients returned to work within six months of surgery.¹²

Cancer, a leading cause of morbidity and mortality, as well as productivity loss,

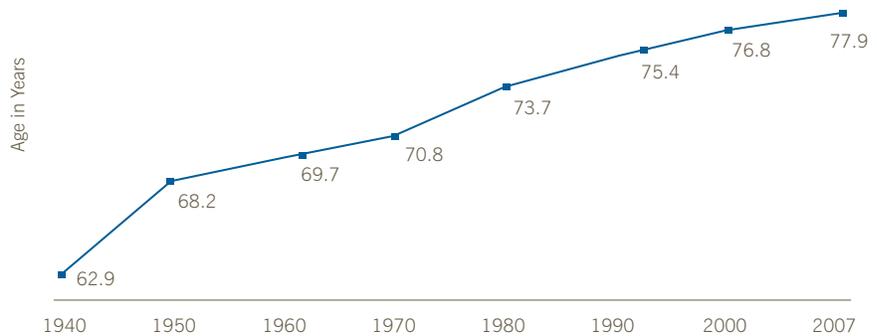
costs the U.S. \$190 billion each year.¹³ Medical advances have led to significant declines in cancer mortality, with imaging and pharmaceutical innovation accounting for more than two-thirds of the decline in mortality among cancer patients between 1996 and 2006.¹⁴

Surgical advances over the past decade offer cancer patients less invasive surgical

options, but they also raise the cost of care. In the case of prostate cancer, the operating room costs¹⁵ of laparoscopic and robot-assisted prostatectomy are 200 to almost 300 percent higher, respectively, than a traditional open radical prostatectomy.¹⁶ However, these advanced procedures also result in faster discharges, which can speed recovery, and lower

Advances in medicine contribute to longer lives.

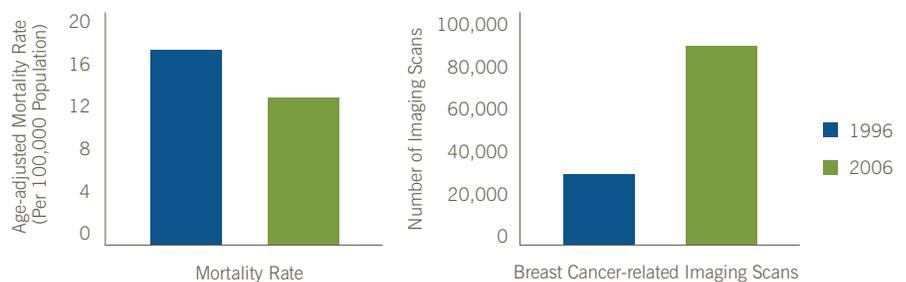
Chart 3: U.S. Life Expectancy at Birth, 1940-2007



Source: National Center for Health Statistics. (2010). *Deaths: Final Data for 2007*. Hyattsville, MD. Access at http://www.cdc.gov/NCHS/data/nvsr/nvsr58/nvsr58_19.pdf.

Breast cancer mortality has decreased as breast imaging use has increased.

Chart 4: Breast Cancer Mortality Rate and Breast Cancer-related Imaging Scans,⁽¹⁾ 1996 and 2006



Source: Lichtenberg, F. R. (2010). *Has Medical Innovation Reduced Cancer Mortality?* Cambridge, MA. Access at <http://www.nber.org/papers/w15880>.

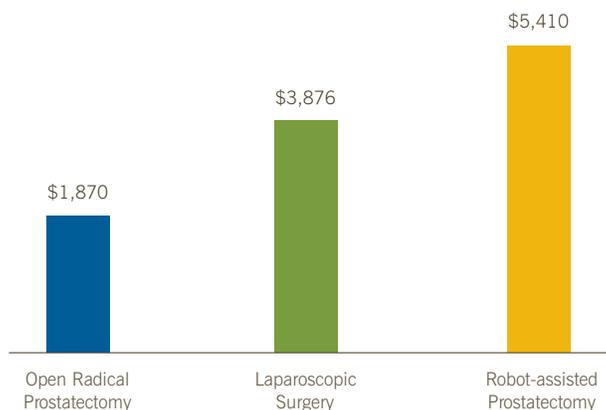
(1) Includes breast cancer-related imaging scans captured in the MEDSTAT MarketScan Commercial Claims and Encounters Database, includes private sector health data from approximately 100 payers. It is not a nationally representative sample and it does not include Medicare beneficiaries.

levels of pain and use of strong pain medications for patients.¹⁷

Often, medical advances raise the standard of care, leading to better outcomes for patients but also to increased utilization. For instance, between 2000 and 2004, the number of primary hip and primary knee replacements grew by 37 percent and 53 percent, respectively.¹⁸ Likewise, between 2000 and 2006, physicians ordered 39 percent more CT services and 76 percent more MRI services for Medicare beneficiaries.¹⁹ These advanced imaging technologies have greatly improved diagnostic precision, but they require expensive equipment and clinical expertise, which further boost costs. For example, in Salt Lake City, UT, an abdominal MRI costs up to \$5,500, whereas an abdominal X-ray costs up to \$1,650.²⁰

Emerging technologies advance care delivery, but can be costly.

Chart 5: Operating Room Costs⁽¹⁾ per Case for Three Radical Prostatectomy Techniques



Source: Joseph, J., et al. (2008). The Cost of Radical Prostatectomy: Retrospective Comparison of Open, Laparoscopic, and Robot-assisted Approaches. *Journal of Robotic Surgery*, 2(1), 21-24.

(1) Measured at one institution, the University of Rochester Medical Center.

Our Older, Sicker and Growing Population Continues to Need More Care

Demographic changes are leading to increased use of all health care, including hospital services. According to the U.S. Census Bureau, the population will grow from 310 million in 2010 to an estimated 439 million in 2050.²¹ More important, the number of people over age 65 will more than double over that span from roughly 40 million to more than 88 million.²²

As people age they have more health problems and, consequently, consume more health care services.²³ Nearly half of Medicare beneficiaries have three or more chronic conditions, with the most common being hypertension, arthritis, heart conditions, cognitive or mental impairments, and diabetes.²⁴ In 2007, average annual health expenditures for adults 65 years and older were three times higher than for adults age 18 to 44 years – \$9,696 versus \$2,754.^{25,26}

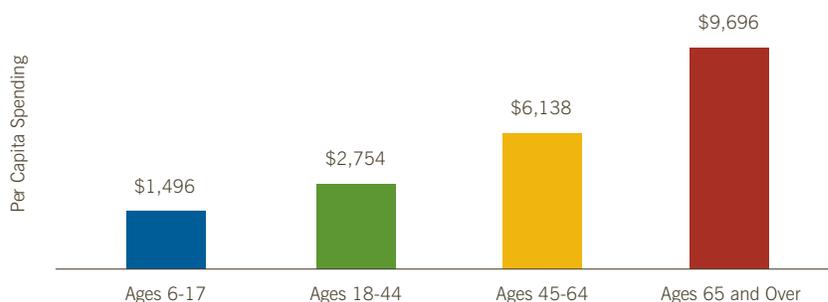
Health spending among seniors often peaks during the last six months of life, when patients are more likely

to be hospitalized and placed in the intensive care unit. Among Medicare heart failure patients who died between 2000 and 2007, roughly 80 percent were hospitalized in the last six months of life and their average per-patient costs increased 26 percent over that period from \$28,766 to \$36,216.^{27,28}

The growing prevalence of chronic conditions across all age groups is another key contributor to the rising demand for care. An estimated 133 million Americans – nearly half of all U.S. adults – had at least one chronic disease in 2005,²⁹ up from 118 million in 1995.³⁰

Individuals age 65 years and older, the fastest growing segment of our population, use more health care services.

Chart 6: Mean Annual Expenses⁽¹⁾ per Person by Age, 2007



Source: National Center for Health Statistics. (2011). *Health, United States, 2010*. Hyattsville, MD. Access at <http://www.cdc.gov/nchs/data/abus/abus10.pdf>.

(1) Expenses are per person with an expense and include health care and prescribed medication.

Various lifestyle factors, such as inadequate physical activity and poor diet, are contributing to these trends. For example, the percentage of overweight or obese adults rose from 44 percent in 1987 to 63 percent in 2007.³¹ This rising incidence of obesity leads directly to higher health care costs because it boosts demand for treatment of chronic conditions related to obesity such as hypertension, diabetes, heart disease and stroke.

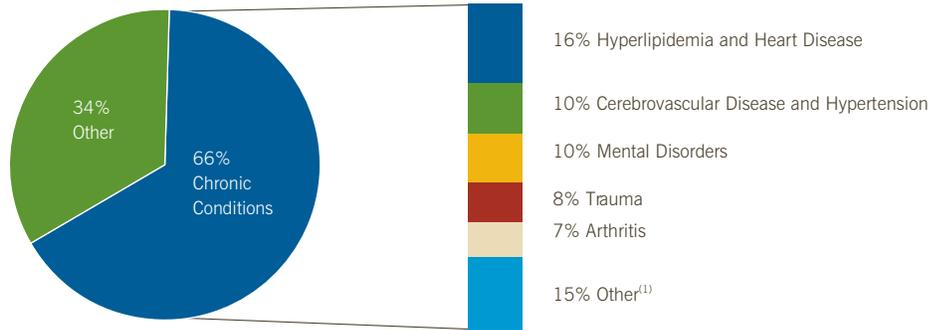
Among children, hospitalizations with a diagnosis of obesity jumped by approximately 75 percent between 2001 and 2005, and the costs of caring for these children nearly doubled in the same period from \$125.9 million to \$237.6 million.^{32,33}

In addition, many individuals suffer from more than one chronic condition, each of which leads to an increase in spending on hospital care. Compared with patients with no or one chronic condition, spending on hospital care increases by 11 percent for patients with two chronic conditions, and by 46 percent for patients with seven or more chronic conditions.³⁴

Part of this increase in spending relates to use of more services, but a sicker population also requires higher intensity care. A recent analysis of hospital case mix confirms that facilities are treating patients with an increasing number of comorbidities that require more labor and other resources than in the past.³⁵

Ten chronic conditions account for the majority of Medicare spending growth.

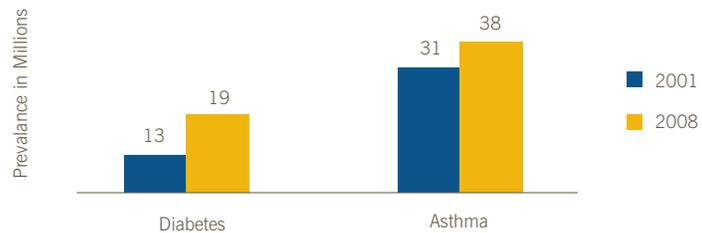
Chart 7: Conditions Accounting for Growth in Medicare Spending, 1987-2002



Source: Thorpe, K., et al. (2006). The Rise In Spending Among Medicare Beneficiaries: The Role Of Chronic Disease Prevalence And Changes In Treatment Intensity. *Health Affairs*, 25(5), 378-388.
 (1) Other includes cancer, diabetes, and pulmonary conditions.

Rates of chronic diseases are rising.

Chart 8: Prevalence of Common Chronic Diseases, 2001 and 2008



Sources: Centers for Disease Control and Prevention. (2009). *Longer-term Trends in Diabetes*. Access at http://www.cdc.gov/diabetes/statistics/slides/long_term_trends.pdf, and Centers for Disease Control and Prevention. (2008). National Health Interview Survey, 2001 and 2008. Access at <http://www.cdc.gov/asthma/nhis/default.htm#01>.

Rising obesity rates lead to increased costs.

Chart 9: Per Capita Spending⁽¹⁾ for Normal Weight, Overweight and Obese Adults, 1987 and 2007

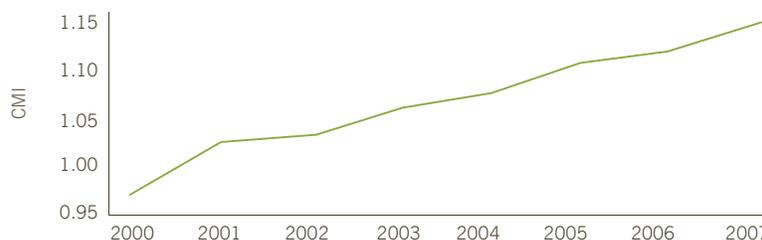


Source: Congressional Budget Office. (2010). *How Does Obesity in Adults Affect Spending on Health Care?* Access at <http://cbo.gov/ftpdocs/118xx/doc11810/09-08-obesity.pdf>.
 (1) Spending figures are expressed in 2009 dollars.

Some experts estimate that the combination of rising prevalence of chronic disease and new medical treatments and technologies to treat them account for nearly two-thirds of spending growth over the past few decades.³⁶ The impact of chronic disease on health care costs is not likely to decrease given that rates for many conditions such as diabetes and asthma are climbing³⁷ and care advances are allowing people with chronic diseases to live longer.

Hospitals are treating sicker patients who require more specialized care.

Chart 10: Inpatient Case-mix⁽¹⁾ Index (CMI) for the Medicare Population, 2000-2007



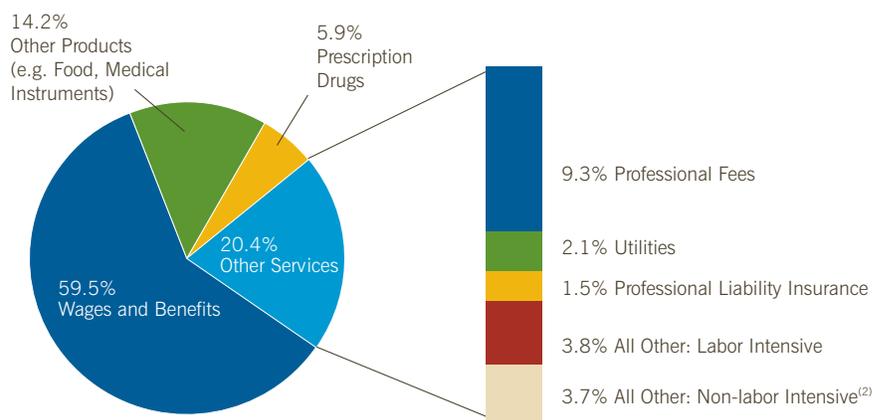
Source: Deb, P. (2010). *Trends in Case-mix in the Medicare Population*. Paper presented to the American Hospital Association, Federation of American Hospitals, and Association of American Medical Colleges.
 (1) Case-mix is defined as the mix of patients across diagnosis-related groups (DRGs) in a hospital.

The Majority of Spending on Hospital Services Goes to Caregivers and Other Hospital Workers, and These Costs Are Rising

About 60 cents of every dollar spent by hospitals goes to pay for wages and benefits for those who directly care for patients or support their care in some manner.³⁸ Caregivers with a variety of skills are required to meet the different needs of patients before, during and after their hospital stay: physicians, nurses and therapists provide direct care; technicians administer diagnostic tests; housekeeping and dietary staff meet patients' basic needs; social workers plan for a smooth discharge and follow-up care; and clerical staff handle registration, scheduling and claims processing. Other essential expenses include medications, devices and other supplies as well as improvements to treatment facilities, installation and/or upgrades of health information technologies, utilities and liability coverage.

Wages and benefits for caregivers and support staff represent 60 percent of spending on hospital care.

Chart 11: Percent of Hospital Costs⁽¹⁾ by Type of Expense, 4Q09



Source: AHA analysis of Centers for Medicare & Medicaid Services data, using base year 2006 weights.
 (1) Does not include capital.
 (2) Includes postage and telephone expenses.



“...we are clearly entering a new era in which it is more difficult to balance the possibilities of medicine and public expectations against the willingness to finance them.”³⁹

David Mechanic, Institute for Health, Health Policy and Aging Research, Rutgers University

Hospital labor costs reflect the many types of people who contribute to care.

Chart 12: Example of a Heart Attack Patient's Staff Interactions from Emergency Department to Discharge



Source: American Hospital Association.

Hospital caregivers provide specialized care and require a higher level of education and training than that required of workers in other service industries. For instance, some of the nurses in highest demand are: 1) registered nurses with bachelor's-level training, which requires approximately four years of study after high school; and 2) advanced practice specialty nurses, such as nurse practitioners and nurse anesthetists, with master's level training, which can require approximately five to seven years of study after high school.⁴⁰ As a result, wages for hospital workers are higher than those of workers in other service industries. In 2008, a hospital worker's average weekly earnings were \$921 compared with \$710 for workers in all service industries – a 30 percent difference in weekly labor costs.⁴¹

Over the past decade, hospitals also have faced severe shortages of registered nurses, pharmacists and other clinical workers. Labor shortages have contributed to higher wage increases for hospitals than other private industries.⁴² For instance, the mean annual wage for registered nurses rose by 38

percent from 2001 to 2009^{43,44} compared to 28 percent for all U.S. occupations.^{45,46}

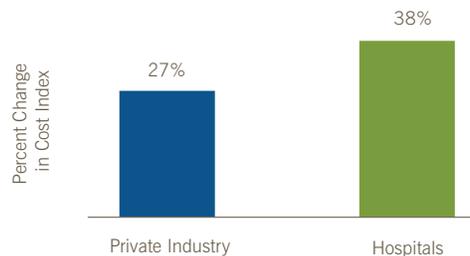
While vacancy rates may be lower in the short term because of the recession and loss of jobs in other sectors, hospitals still face significant long-term workforce shortages.⁴⁷ A 2008 Institute of Medicine report on the future of America's health care workforce projects a shortage of 868,000 registered nurses and 284,000

physicians in 2030, given the needs of our aging population.⁴⁸

Several trends are driving the projected shortage of registered nurses. First, the current nursing workforce is aging; many will soon retire. While younger nurses will join the workforce, their numbers will be insufficient to meet the growing demands of an aging population and the expected expansion

Shortages of workers with the required specialized skills have pushed up wages and benefits for hospitals relative to other industries.

Chart 13: Percent Change in Employment Cost Index,⁽¹⁾ All Private Industries and Hospitals, March 2001 to March 2010



Source: Bureau of Labor Statistics. (2010). *Employment Cost Index Historical Listing Current-dollar March 2001 – December 2010*. Access at <http://www.bls.gov/web/eci/echistrynaics.pdf>.

(1)The ECI is a measure of the change in the costs of labor.

of coverage following health reform. Second, approximately 30,000 nursing school applicants have been turned away each year since 2002 due to insufficient capacity. More than 75 percent of schools in one survey identified a lack of faculty as a main structural barrier to admitting more nursing students.⁴⁹

Skilled health care professionals also have many opportunities to work in care settings other than hospitals, which also drives up wages. Physician practices, home health care services, nursing facilities and nursing employment agencies all recruit caregivers from the same limited supply of health care professionals.

Projections suggest that growth in nursing employment in these care settings will be greater than in hospitals,⁵⁰ and these figures do not consider that insurance companies and non-clinical businesses also employ nurses to help screen and evaluate care rendered by others.

An aging physician population, a flat number of medical school graduates from 1980 to 2005, and the high cost

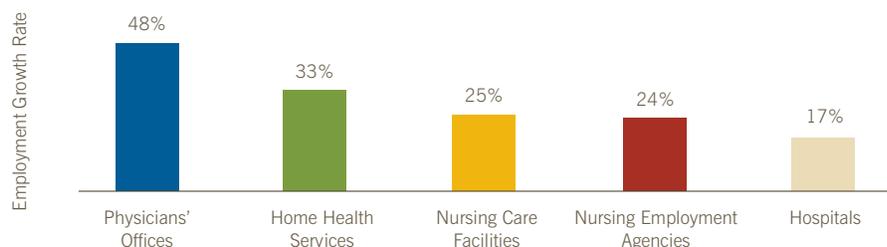
of undergraduate and medical school educations are driving the shortage of physicians.⁵¹ In 2010, medical school graduates reported carrying debt averaging \$157,944.⁵²

These shortages are contributing to difficulty maintaining on-call physician coverage of hospital emergency departments. In order to assure patients

continuous access to vital services, hospitals are increasingly paying physicians for this coverage. Half of all hospitals report having augmented their budgets for on-call emergency coverage in the past year and approximately 20 percent of hospitals report spending \$1 million per year or more to maintain it.⁵³

Alternative employment opportunities will challenge hospitals to attract and retain caregivers.

Chart 14: Projected Employment Growth Rates for Registered Nurses by Health Care Setting, 2008-2018



Source: Bureau of Labor Statistics. (2009). *Occupational Outlook Handbook 2010-2011*. Access at <http://www.bls.gov/oco/ocos083.htm#outlook>.

Hospitals Are Investing in Clinical Information Technology to Improve Patient Care

Most hospitals are investing in health information technology (IT) as an essential mechanism to elevate the quality and efficiency of patient care. Clinical IT systems can store health information electronically, facilitate clinical decision-making, streamline care transitions and monitor population health. The 2009 *American Recovery and Reinvestment Act* (ARRA) devoted funds to help hospitals and other providers implement IT systems,

though many hospitals had already begun making investments. Estimates of the cost of implementing an electronic health record (EHR) system vary widely, from \$3 million for a small hospital to \$200 million for a large system.⁵⁴ While ARRA funding will partially offset these costs, hospitals will still face sizeable uncovered outlays.

Hospitals also are making numerous investments in quality reporting systems,

which are being used more widely and are increasingly linked to payment and other incentives. Hospitals must invest in dedicated staff to develop and sustain these systems. In one study, half of hospital quality reporting officers stated they had added up to 12 full-time employees just for quality reporting and improvement initiatives. Approximately 50 percent of clinical directors reported a notable increase in their workload because of these initiatives.⁵⁵

“ ”
from the field

“As baby boomers age we expect to increase employment of physicians and physician extenders by 5 percent to 10 percent annually over the next three to five years. This will boost our facility’s labor costs by \$1.5 to \$3 million annually.”⁵⁶

Vince Pryor, Edward Hospital & Health Services, Naperville, IL

Patient Protection and Affordable Care Act (ACA) Provisions Promote Quality and Care Coordination, but Require Upfront Investments

The ACA creates a number of delivery and payment system reforms that aim to pay providers for delivering high-quality and coordinated care. The delivery system reforms that have the greatest potential to reduce costs will also require significant investments from hospitals; these reforms include:

- A shared savings program to foster accountable care organizations (ACOs);
- A program to reduce avoidable hospital readmissions; and
- A national pilot program to bundle payments across providers after a hospitalization.

These reforms have the potential to reduce hospital and Medicare spending if implemented appropriately. CBO estimates that some of the most significant delivery system reforms will save Medicare a total of \$14.7 billion over 10 years.^{57,58}

However, reaping savings in the long term will require providers to expend effort to collaborate with payers and to make major upfront investments in areas such as clinical IT systems and labor. Hospitals already are making investments and forming the relationships necessary to succeed

under the ACA changes. For instance, CHRISTUS Santa Rosa in Texas is aiming to add 100 primary care physicians to its system to prepare for Medicare payment and delivery reforms.⁵⁹ Additionally, Detroit Medical Center (DMC) conducted town halls with local physicians to seek partnership in a physician hospital organization (PHO) that would become the basis for forming an ACO. In just one month, 500 physicians accepted DMC's invitation to join the PHO.⁶⁰

Administrative and Regulatory Burdens Take Time Away from Patients and Increase Hospital Costs

Beyond the mission of providing patient care, hospitals must comply with the ever-growing administrative requirements of government regulators and payers. While many administrative functions are essential to providing high-quality care, when they become redundant, inconsistent, or excessive, they divert resources from patient care and contribute to growing costs.

Hospitals occupy one of the most highly regulated sectors. Not only must hospitals comply with thousands of pages of Medicare and Medicaid guidance issued annually, they must

also comply with regulations from dozens of other federal agencies. For example, the Environmental Protection Agency regulates air emissions from medical waste incinerators, the Nuclear Regulatory Commission oversees the administration of radiopharmaceuticals, and non-profit hospitals must report community benefit activities to the Internal Revenue Service. In addition, states often have their own requirements, many of which duplicate or add to federal requirements.

Private payers each have their own requirements for preauthorization,

admission notification, utilization review and reporting, as well as different combinations of covered and excluded services, patient cost-sharing, payment schemes and rules. There are more than 1,000 private insurance companies in the U.S. and many more employers who self-insure. There is no standard set of requirements that hospitals must follow – each insurer can set its own rules and change them at any time.

While provisions in the ACA will address some of the administrative complexity, regulatory costs for hospitals will continue to be significant.

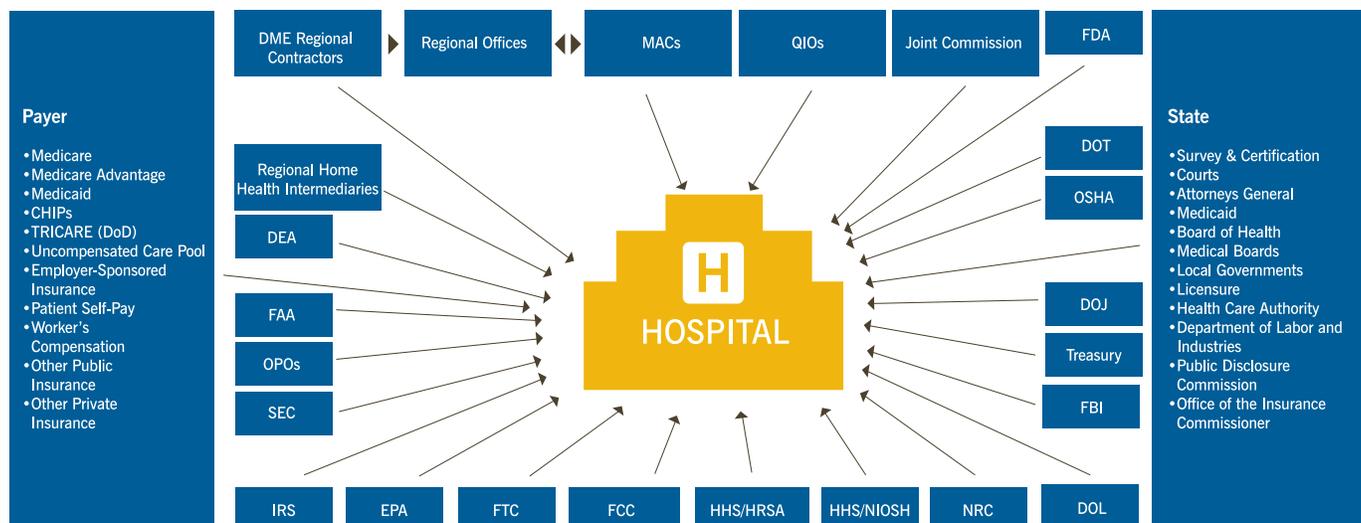
“ ”
from the field

“We are spending about \$630 million [on IT], and we will recoup in incentives from the government about half of that...If you're operating a single hospital in a community, and you have to comply with these health IT requirements, I can't imagine how they could do it.”⁶¹

Trevor Fetter, President, Tenet Healthcare Corporation, Dallas, TX

Hospitals are one of the most highly regulated sectors and face sizeable administrative costs.

Chart 15: Illustration of Agencies Regulating Hospitals



Source: Adapted from Washington State Hospital Association. (2001). *How Regulations Are Overwhelming Washington Hospitals*. Access at <http://www.wsha.org/files/62/RegReform.pdf>, and American Hospital Association and PricewaterhouseCoopers. (2001). *Patients or Paperwork? The Regulatory Burden Facing America's Hospitals*. Access at <http://www.aha.org/aha/content/2001/pdf/FinalPaperworkReport.pdf>.

Hospitals Absorb the Cost of the Uninsured, Underinsured and Payment Shortfalls from Public Programs

Hospitals face a growing burden of uncompensated care costs from the uninsured and underinsured and payment shortfalls from public programs. The most recent U.S. Census data showed that more than 50.7 million Americans were uninsured in 2009.⁶² As the number of uninsured and underinsured grows, hospitals give more financial assistance and accrue more bad debt. From 2001 to 2007,

hospital uncompensated care costs rose from \$21.5 billion to \$34 billion as the number of uninsured climbed from 39.8 million to 47 million over the same period.⁶³

At the same time, Medicaid enrollment has swelled by approximately 6 million since the start of the recession in 2007⁶⁴ and will grow by an estimated 16 million after the ACA coverage expansion goes into effect in

2014.⁶⁵ Medicare enrollment also is projected to grow significantly now that the baby boomers are reaching eligibility age. However, Medicaid and Medicare payment rates fall well short of hospitals' costs. In 2009 alone, Medicaid payments were an estimated \$11.3 billion below hospital costs, while Medicare payments were about \$25.2 billion below hospital costs.⁶⁶

Hospitals Are Taking Action to Make Care Better and More Affordable

Despite the confluence of factors that drive health care spending and challenge efforts to make health care more affordable, there are opportunities to reduce costs without compromising care.

Hospitals are seeking these opportunities in a variety of ways: forming partnerships among hospitals, physicians and other providers to better coordinate care and jointly engage in

performance improvement initiatives; implementing evidence-based practices to improve patient outcomes; and developing new delivery models to improve care transitions.

- Advocate Health Care in Chicago has demonstrated clinical and efficiency improvements through nearly 40 initiatives to improve outcomes, medical and technological infrastructure, patient safety and patient satisfaction under the Clinical Integration Program of Advocate Physician Partners. The road to clinical integration was not easy. It took Advocate several years and approximately \$100 million in investments to engage the system's eight hospitals and 3,400 physicians, along with the major health plans in Chicago.⁶⁷
- Cleveland Regional Medical Center in Shelby, NC, sends case managers to the homes of patients with congestive heart failure to assist with the transition from hospital to home and provide customized home health monitoring and education. This program helped to reduce the hospital's readmission rate from 25 percent to below 10 percent.⁶⁸
- Presbyterian Healthcare Services (PHS) in New Mexico is testing new payment models with its affiliated physicians and health plan. One such model is a medical home initiative that rewards providers for the quality and value of care delivered rather than the volume of services. PHS hopes to expand this initiative to independent physicians in the area via its health plan.⁶⁹
- Baylor Regional Medical Center at Plano, TX implemented an evidence-based intervention created by the Institute for Healthcare Improvement to eliminate ventilator-associated pneumonia (VAP). The institution reports no cases of VAP and direct cost savings of \$150,000 per patient, totaling more than \$3 million in savings from March 2007 through April 2009.⁷⁰
- Through the Michigan Keystone ICU Project – a partnership between the Michigan Health & Hospital Association (MHA) and Johns Hopkins University – participating hospitals instituted a five-step program to reduce costly hospital-acquired infections. Between March 2004 and March 2009, MHA reports that the Keystone Project saved 1,830 lives, prevented more than 140,700 excess hospital days, and saved more than \$271 million in health care costs.⁷¹

Conclusion

The demand for health care is rising due to advances in medicine, an aging population and a rising burden of chronic disease. At the same time, the costs to provide that care are increasing: new devices and drugs are adding to hospital expenses for each service; workforce shortages are driving up wage rates; and hospitals are

making significant investments in clinical information technology, quality measurement, care coordination and compliance with increasing regulatory and payer requirements. Understanding these cost drivers is critical to developing strategies to contain costs, but often policy makers do not have the full picture.

Even as hospitals grapple with the many factors driving up costs, they are working to make health care more affordable through innovations in care delivery focused on improving population health, increasing the quality and efficacy of care, and better managing care transitions across the continuum.

POLICY QUESTIONS

- How might policymakers and health care organizations partner to ensure the long-term sustainability of the health system, taking into consideration the many drivers of health spending growth?
- What short- and long-term policies can reduce shortages of nurses, physicians and other caregivers?
- How can policymakers address long-term public health challenges, such as increasing rates of chronic disease and obesity, which drive much of the growth in health spending?
- How can partnerships among hospitals, other providers such as physicians and post-acute care facilities, and payers be encouraged to reduce cost growth and improve the quality of health care services?
- What rules can be eliminated or modified to reduce hospital administrative spending on regulatory compliance?

ENDNOTES

- 1 National Center for Health Statistics. (2010). *Deaths: Final Data for 2007*. Hyattsville, MD. Access at http://www.cdc.gov/NCHS/data/nvsr/nvsr58/nvsr58_19.pdf.
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- 3 The Kaiser Family Foundation and Health Research & Educational Trust. (2009). *Employer Health Benefits: 2009 Annual Survey*. Washington, DC.
- 4 Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group. (2011). *National Health Expenditures Aggregate, Per Capita Amounts, Percent Distribution, and Average Annual Percent Growth, by Source of Funds: Selected Calendar Years 1960-2009*. Access at <https://www.cms.gov/NationalHealthExpendData/downloads/tables.pdf>.
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- 9 Cutler, D., et al. (2001). Is Technological Change in Medicine Worth It? *Health Affairs*, 20(5), 11-29.
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- 11 Cutler, D., et al. (2001). Is Technological Change in Medicine Worth It? *Health Affairs*, 20(5), 11-29.
- 12 Abbas, A. (2004). Frequency of Returning to Work One and Six Months Following Percutaneous Coronary Intervention for Acute Myocardial Infarction. *American Journal of Cardiology*, 94, 1403-1405.
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TrendWatch, produced by the American Hospital Association, highlights important trends in the hospital and health care field. Avalere Health supplies research and analytic support.

TrendWatch – March 2011
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