

Overuse of Specialty Care Increases Healthcare Costs in Indiana

In the United States, 90% of the population spend just 30% of the nation's health care dollars, money that largely goes for primary care. The remaining 10% of the population spend the rest, a whopping 70% of the nation's health care dollars. These dollars, in contrast, largely pay for specialty services in secondary and tertiary care.¹ (See the box on this page for explanations of the types of care.) This imbalance illustrates why insurance companies like to "cherry pick" the people they insure, refusing insurance to those who are or might become high users.

Primary care is the least expensive type of care, and an adequate supply of it is critical to contain health care costs. It includes the care that is necessary to maintain good health—preventive care, immunizations, well child care, routine treatment, health education, etc. Specialty care is also critical when and *if* it is needed and appropriate.

In this issue brief, we will discuss some problems with an overuse of specialty care, the situation in Indiana, and actions that policymakers can take to improve the situation.

Follow the Money

Although primary care is fundamental, many payers (insurance companies and Medicare) pay less for it, including the amount that they reimburse physicians. In contrast, these payers often reward specialists and tertiary care claims in full, so that's where many health care infrastructure investments (such as cardiac hospitals) are being made.¹

Higher reimbursement for specialty care is apparent when we compare physicians' incomes. As Table I shows, the median income of a primary care physician in 2004 was \$161,816, compared with \$297,000 earned by specialists. For this and other reasons, Indiana

What Are the Different Types of Care?

Primary care includes preventive care, routine treatment, screenings to detect problems early when they are most easily treated, general health education, and maintenance. The American Medical Association describes primary care as "the provision of a broad range of personal medical care (preventive, diagnostic, palliative, therapeutic, curative, counseling and rehabilitative) in a manner that is accessible, comprehensive, and coordinated over time by a licensed MD/DO physician." A provider may provide care only to an age-specific or gender-specific group of patients, as long as the care of the individual patient meets the above criteria."¹⁵

Specialty care is health care services provided by medical specialists whose practice is limited to a particular branch of advanced medicine. Ideally, specialists generally do not have the first contact with patients, but instead are referred to them by primary care and family physicians.

Secondary care (a type of specialty care) is a medical service provided by a physician who acts as a consultant at the request of the primary physician. Some specialists voluntarily limit their practice to secondary care by requiring patients to obtain a referral to them from a primary care physician. Some insurance plans may require specialists to see only referred patients, and this may be enforced by a payment agreement.

Tertiary care services are specialty services generally provided by particular hospitals or a set of providers. The organization or providers may have contracts with an insurance company or payer to provide this care. Examples of tertiary care services would include specialist cancer care, neurosurgery (brain surgery), burn care, and plastic surgery.



has a severe and growing shortage of primary care physicians.²

Factors that demonstrate an overuse of specialty care are unwarranted or unnecessary referrals to specialists from primary care physicians and unneeded tests and procedures, both drivers of higher healthcare costs. Two other factors that drive an overuse of specialty care include a high number of uninformed or misinformed consumers and the growth of specialty hospitals.^{1,3}

Specialty Care Is Not Always Appropriate or Better

In the late 1980s, Robert Brook and his colleagues at RAND Corporation began questioning the appropriateness of medical procedures that had been performed and found that “as much as one-fifth to one-quarter of acute care services were felt to be used for equivocal or inappropriate reasons.”⁴ In one study where a Rand team investigated the

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appropriateness of specific procedures, they found that coronary angiography, carotid endarterectomy, and endoscopy of the upper gastrointestinal tract were performed inappropriately in 17%, 32%, and 17%, respectively, among the cases they reviewed.⁵ Over the years, researchers have continued to question the need for many procedures.

One disturbing finding by researchers who studied appropriateness of care is the prevalence of *supplier-induced demand*, when doctors stimulate demand for their own services. Supplier-induced demand is the idea that doctors, when acting as agents for their patients, can use their discretionary power so that their recommended care differs from what an informed patient would think is appropriate. Induced demand may take the form of an increase in the number of services a patient receives or a change in the service mix provided to patients.^{6,7} For example, in regions where cardiac catheterization

Table I: Median Pretax Compensation of Physicians, United States, 1995-2004

| Specialty | Median Compensation, \$ | | | 10-Year Change | 5-Year Change |
|-------------------------------|-------------------------|---------|---------|----------------|---------------|
| | 1995 | 2000 | 2004 | 1995-2004 | 2000-2004 |
| All Primary Care | 133,329 | 147,232 | 161,816 | 21% | 10% |
| Family Practice | 129,148 | 145,121 | 156,011 | 21% | 8% |
| Internal Medicine | 139,320 | 149,104 | 168,551 | 21% | 13% |
| Pediatric/Adolescent Medicine | 129,085 | 141,676 | 161,188 | 25% | 14% |
| All Specialists | 215,978 | 256,494 | 297,000 | 38% | 16% |
| Anesthesiology | 240,666 | 280,353 | 325,999 | 36% | 16% |
| Cardiology (Invasive) | 337,000 | 365,894 | 427,815 | 27% | 17% |
| Cardiology (Noninvasive) | 239,406 | 300,073 | 351,637 | 47% | 17% |
| Dermatology | 176,948 | 213,876 | 308,855 | 75% | 44% |
| Emergency Medicine | 176,439 | 198,423 | 221,679 | 26% | 12% |
| Gastroenterology | 209,913 | 281,308 | 368,733 | 76% | 31% |
| Hematology/Oncology | 188,569 | 258,403 | 350,290 | 86% | 36% |
| Neurology | 164,295 | 175,143 | 211,094 | 29% | 21% |
| Obstetrics/Gynecology | 215,000 | 223,207 | 247,348 | 15% | 11% |
| Ophthalmology | 209,736 | 236,353 | 280,353 | 34% | 19% |
| Orthopedic Surgery | 301,918 | 335,646 | 396,650 | 31% | 18% |
| Otorhinolaryngology | 220,000 | 235,415 | 296,623 | 35% | 26% |
| Psychiatry | 132,477 | 156,486 | 182,799 | 38% | 17% |
| Pulmonary Medicine | 170,529 | 195,557 | 230,688 | 35% | 18% |
| Radiology (Diagnostic) | 247,505 | 298,824 | 406,852 | 64% | 36% |
| Surgery (General) | 216,562 | 245,541 | 282,504 | 30% | 15% |
| Urology | 213,448 | 301,772 | 335,731 | 57% | 11% |

Source: Bodenheimer, T., Bernson, R.A., & Rudolf, P. (2007). The primary care–specialty income gap: Why it matters. [Based on data from the Medical Group Management Association, Englewood, Colorado, December 2005.] *Annals of Internal Medicine* 146:301–306. Retrieved March 26, 2008, from the *Annals of Internal Medicine* Web site at <http://www.annals.org/cgi/reprint/146/4/301.pdf>



found the opposite is often true. Baicker and Chandra⁹ found that states with higher Medicare spending have lower quality care. They said this relationship may be due to overutilization of intensive and costly specialty care that “crowd out” more effective care. They also noted that states with more general practitioners and primary care physicians use more effective, lower cost care, whereas states with more specialists have both higher healthcare costs and lower quality. And in 2005, another group of researchers found that the higher the specialty care to primary care ratios, the higher the mortality rates.¹⁰

What’s Happening in Indiana?

While Indiana’s population may be unhealthier than the national average, as indicated by high rates of smoking, obesity, and diabetes,¹¹ this may not fully account for the higher number of specialty procedures performed in the state. Other factors driving up the number of specialty procedures in the state include

labs were more numerous, researchers found that the number of patients receiving this procedure was also greater.³

A study by researchers at the Mathematica Policy Research, Inc.⁸ found that Indiana has a much higher percentage of surgeons among its physicians than the national average. In 2002, at least 13% of the physicians in Indiana were surgeons, compared to the national average of 7%. A high proportion of surgeons may lead to a higher number of surgeries performed per population.⁸

Numerous researchers have also shown that the overuse of specialty care leads to higher healthcare costs. For example, Terry³ found that nearly one-third of Medicare spending pays for services that do not improve health, and that many of these services are specialty services.

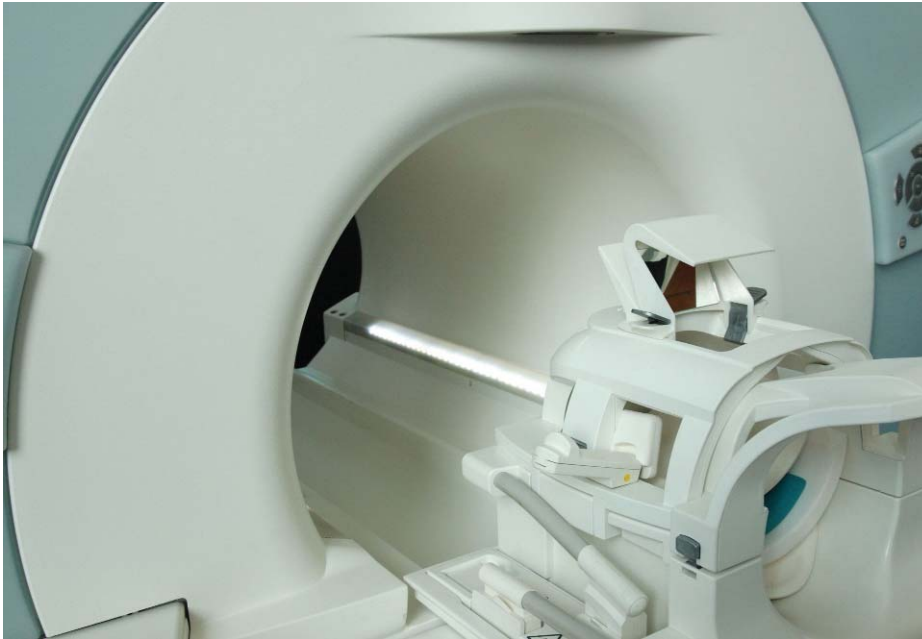
Cost, of course, is not the only important factor; quality is critical. But while most people may believe that a high availability of specialty care leads to higher quality care, research has

low expenditures for primary care; a shortage of primary care providers, especially when compared to specialists; the growth of specialty hospitals; abundance of specialized technology; popularity of outpatient procedures; and a trend for individuals to self-refer themselves to specialists.³

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Low Expenditures for Primary Care—In the Mathematica study,⁸ researchers confirmed that spending in Indiana for primary care is low. They reported that the “overall pattern of care delivery in Indiana is in general consistent with low expenditures for primary care.” Furthermore, they said that characteristics of Indiana’s healthcare market “may reflect a focus on relatively aggressive health care interventions.” The researchers also stated that the

growth of specialized facilities, such as cardiac hospitals and specialized physicians who are typically compensated higher, increases healthcare spending.⁸



because of the income gap between primary care providers and specialists. As shown in Table I (on page 2), specialists' incomes are typically much greater than incomes of primary care physicians. This gap leads to more and more medical students choosing specialty over primary care. If current reimbursement formulas continue with no adjustments, the shortage of primary care physicians will grow.²

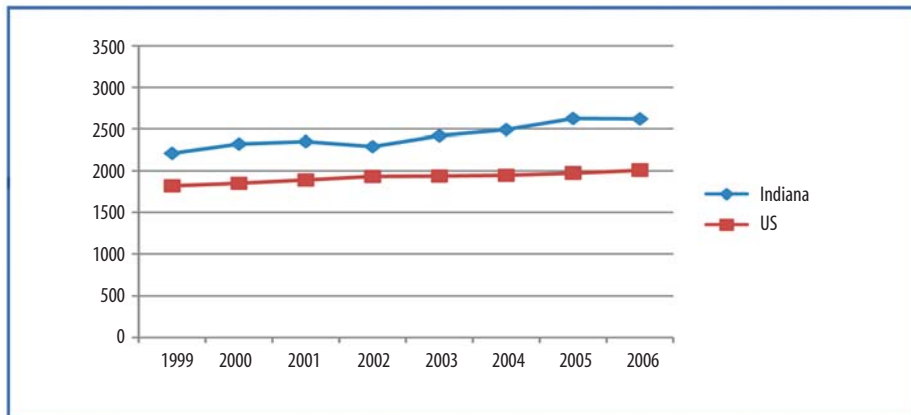
Surge in Specialty Hospitals Is Strong—More recently, specialty-service lines have become a popular trend. In particular, many specialty hospitals have been opened in Indiana, such as the new cardiac hospitals that have opened in the Indianapolis metropolitan area in recent years.

One of the factors driving the strong surge in cardiac hospitals is the fact that Medicare pays generously for

Shortage of Primary Care Providers—As mentioned before, Indiana has a severe and growing shortage of primary care physicians. Currently, Indiana needs approximately 1,000 additional primary care physicians to appropriately care for its population. By 2020, analysts believe that Indiana will need an additional 2,000 primary care physicians.² The problem may continue to worsen

cardiac care, but less well for other types of care, especially preventive care. To capitalize on this, many doctors have invested in these new specialty hospitals.¹² In fact, a study by the Center for Studying Health System Change found that “improving clinical quality did not appear to be a driving force for new facilities or services.”¹³ Specialty hospitals have also been linked to induc-

Figure 1: Outpatient Visits per 1,000 Population, Indiana and United States, 1999-2006



Source: Kaiser Family Foundation. (2006) Indiana: Outpatient Visits per 1,000 population, 1999-2005. State Health Facts. Retrieved September 25, 2007, from <http://www.statehealthfacts.org/profilecat.jsp?rgn=16&cat=8>

Medical students in Indiana are increasingly choosing to specialize rather than enter primary care. To impact Indiana's shortage of primary care physicians, recruitment efforts are vital. By increasing reimbursement for primary care physicians and other primary care providers, Indiana may be able to attract additional students to enter primary care.



ing a higher use of their services. A 2007 study published in the *Journal of the American Medical Association* found that the opening of a cardiac hospital in a hospital referral region is associated with an increase in coronary revascularizations in the region. This increase is twice as great as the increase that occurred in regions that did not have a specialty heart hospital open or where an existing general hospital added cardiac services.¹⁴

Specialized Technology—As of 2002, Indiana also had a greater availability of some types of specialized technology in its hospitals, including computed tomography (CT) scanners, magnetic resonance imaging (MRI), and positron emission tomography (PET) scanners. According to Mathematica, the supply of hospital technology ranged from 14% higher than the national average for CT scanners to 65% higher for PET scanners. They commented that, “the availability of technology in Indiana hospitals is high, even relative to available measure of procedures performed,” sug-

gesting “that Indiana hospitals may amortize the fixed cost of investment in technological capacity over fewer procedures, potentially contributing to the higher average cost for care in Indiana hospitals.”⁸

Outpatient Procedures Proliferate—The prevalence of outpatient procedures (typically specialty services) and visits to outpatient hospitals has been growing across the United States, and Indiana has a much higher number of outpatient visits per 1,000 population compared with the U.S. average. See Figure 1.

Trend for Individuals to Self-Refer to Specialists—Another growing trend in Indiana and the U.S. as a whole is that many people go to specialists without first consulting a primary care physician. Often they reason that if something is really wrong medically, they will be referred to a specialist anyway, so this will lessen the number of doctor visits.³



Thoughts for Policymakers

Indiana's overuse of specialty care is evident and its consequences are numerous, but leaders and policymakers have options to address this issue. It is important to keep in mind that states with more general practitioners and other types of primary care providers use more effective care and have lower spending, while states with more specialists have lower-quality, more costly medical care.

One way to address the overuse of specialty care is by encouraging all Indiana residents to have a *healthcare home*. A healthcare home model is a team approach to healthcare. With this concept, each person would have a primary care provider (who in most cases would be a primary care physician but also might be a nurse practitioner or physician assistant working with a primary care physician) who would coordinate and oversee all aspects of that patient's care. The primary care provider would coordinate visits with specialists. If the specialists were part of the healthcare home or a clinically integrated network of providers, they could share patient information electronically and participate in care coordination, reducing the number of unnecessary visits to specialists.

Medical students in Indiana are increasingly choosing to specialize rather than enter primary care. To impact Indiana's shortage of primary care physicians, recruitment efforts are vital. By increasing reimbursement for primary care physicians and other primary care providers, Indiana may be able to attract additional students to enter primary care. This would be particularly beneficial if the reimbursement rates were greater for primary care physicians, especially those practicing in shortage areas such as



rural and inner-city areas. Reimbursement should include paying for quality outcomes—not purely the volume of services. Another way to attract more physicians into primary care is by increasing financial aid targeted to medical students who are likely to enter primary care, and to provide this aid to students studying out of state who are willing to practice in Indiana.²

With growing problems in our healthcare industry, it is important for Indiana to address the issue of overuse of specialty care before it becomes insurmountable.

The goal of healthcare reform is to envision and promote a state-of-the-art healthcare system. The perfect system for Indiana would provide access to quality healthcare for all Hoosiers, and it would be economical, providing quality care at the lowest possible price. Such a system could be expected to enrich the quality of life for Hoosiers, save taxpayer money, and even help the state attract new business.

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About This Report

This report is part of a series on the health care system in Indiana. It was created as a result of the work of the Indiana University Health Care Reform Faculty Study Group, a group of faculty members and analysts from the following Indiana University organizations:

- IU Center for Health Policy
- IUPUI Consortium for Health Policy, Law, and Bioethics
- William S. and Christine S. Hall Center for Law and Health
- IU School of Medicine



The Indiana University Center for Health Policy is an independent, nonpartisan applied research unit within the Indiana University School of Public and Environmental Affairs at Indiana University–Purdue University Indianapolis (IUPUI). CHP researchers work on critical policy issues related to the health of Hoosiers and the quality and accessibility of health care in Indiana. The CHP is part of the Indiana University Public Policy Institute and the Consortium for Health Policy, Law, and Bioethics, a Signature Center at IUPUI. For more information, visit the CHP Web site at <http://www.healthpolicy.iupui.edu>.

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