NATIONAL CENTER FOR POLICY ANALYSIS

The Market for Medical Care Should Work Like Cosmetic Surgery

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Every day, millions of American consumers go shopping. In the process, they compare the prices and quality of goods and services ranging from groceries to cellular telephone service to fast food to housing. But that daily ritual changes when it comes to comparing prices for medical care. Health care is the only major sector of our economy where consumers typically do not make decisions based on comparison shopping.

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Executive Summary

Cosmetic surgery is one of the few types of medical care for which consumers pay almost exclusively out of pocket. In health markets without third-party payers, doctors and clinics use price competition, package prices, convenience, and other amenities in order to attract patients willing to purchase their services. When patients pay their own medical bills, they become prudent consumers. Thus, the real (inflation-adjusted) price of cosmetic surgery fell over the past two decades — despite a huge increase in demand and considerable innovation. Since 1992:

- The price of medical care has increased an average of 118 percent.
- The price of physician services rose by 92 percent.
- All goods, as measured by the inflation rate, increased by 64 percent.
- Cosmetic surgery prices only rose only about 30 percent.

Cosmetic services have become competitive for a variety of reasons: As more people demanded the procedures, more physicians began to provide them. Licensed medical doctors are free to perform any cosmetic procedure they have been trained to perform, so there are few barriers to entry among competing doctors. Physicians hire and train aestheticians and nurses to perform some minimally-invasive cosmetic treatments — boosting capacity. Many providers increase efficiency by locating operating rooms in their clinics to reduce the cost of outpatient hospital surgery. Surgeons generally adjust their fees to stay competitive and quote package prices. New products and procedures have also become available.

Consider the ubiquitous deal-of-the-day emails where Groupon and Living Social offer subscribers goods and services at greatly reduced prices for a limited time. A quick Internet search of these discount websites will find numerous medical-related services offered to the public, including: Botox, corrective eye surgery, dental teeth cleaning, teeth whitening, laser hair removal, laser facial resurfacing, cosmetic fillers, spider vein and blown spot removal, and numerous other cosmetic procedures at highly discounted

prices. For example:

- The cost of having a physician administer botulism toxin averaged $365 in 2011, about the same as it was more than a decade earlier. Yet deals on Groupon and Living Social occasionally offer Botox for as little as $99, with $149 quite common.
- The price of liposuction has steadily increased in price from $1622 in 1992 to $2,859 in 2011, but deal-of-the-day web sites show physicians willing to perform liposuction on one area for $999.
- The cost of laser skin resurfacing was $1,223 in 2011. Yet, couponing websites have offered numerous laser resurfacing deals for only $299.

Wherever there is price competition, quality competition tends to follow. Consider corrective eye surgery. From 1999 through 2011, the price of conventional Lasik fell about one-fourth due to intense competition. Eye surgeons who wanted to charge more had to provide more advanced Lasik technology, such as Custom Wavefront and IntraLase (a laser-created flap). By 2011, the average price per eye for doctors performing Wavefront Lasik was about what conventional Lasik had been more than a decade ago; but the quality is far better. In inflation-adjusted terms, this represents a huge price decline.

By contrast, the market for medical care does not work like other markets. In most markets, prices and quality indicators are transparent — clear and readily available to consumers. Health care is different: Prices are difficult to obtain and often meaningless when they are disclosed. Most patients never learn the true cost of their care.

Why do doctors and hospitals fail to disclose prices prior to treatment? The answer is simple: because they do not compete for patients based on price. Patients are largely insulated from the adverse effects of not making price comparisons and acting like consumers because third parties — employers, insurance companies or government — pay most of the costs of their health care. Consider:

- For every $1 worth of hospital care consumed, a patient pays only about three cents out of pocket, on the average; a third party pays the other 97 cents.
- For every $1 worth of physician services consumed, a patient pays less than 9 cents out of pocket, on the average.
- For the health care system as a whole, every time a patient consumes $1 in services, he or she pays only 11 cents out of pocket.

When consumers pay only a small percentage of their medical bills directly, they have little reason to discover or care about prices. Thus the incentive for patients is to consume health care services until those services are worth only 11 cents on the dollar, on the average.

Prior to the advent of Medicare and Medicaid in 1965, health care spending barely reached 6 percent of gross domestic product (GDP). Today health care spending is 18 percent of GDP. In addition, medical prices have been rising at three times the rate of inflation over the past few decades. The price of medical care has risen about 2,700 percent of what it was in 1950. By contrast, inflation has only boosted the prices we pay for consumer goods and services by about 800 percent. Although health care inflation is robust for services paid by third-party insurance, prices are rising only moderately for services patients buy directly. Economic studies and common sense confirm that people are less likely to be prudent, careful shoppers if someone else is picking up the tab. The contrast between cosmetic surgery and other medical services is important. One sector has a competitive marketplace and stable prices. The other does not.

About the Author

Devon M. Herrick is a health care economist and senior fellow with the National Center for Policy Analysis. His focus includes 21st century medicine, patient empowerment, medical privacy, pharmaceutical drugs and health technology-related issues. He spent six years working in health care accounting and financial management for a Dallas-area health care system. Herrick received a Doctor of Philosophy in political economy and a Master of Public Affairs degree from the University of Texas at Dallas. He also holds graduate degrees in finance and economics from Amberton University and Oklahoma City University, as well as a Bachelor of Science degree in accounting from the University of Central Oklahoma.

Introduction

Every day, millions of American consumers go shopping. In the process, they compare the prices and quality of goods and services ranging from groceries to cellular telephone service to fast food to housing. But that daily ritual changes when it comes to comparing prices for medical care. Health care is the only major sector of our economy where consumers typically do not make decisions based on comparison shopping. This is unfortunate, because health care consumes about $2.7 trillion dollars annually — nearly one-fifth of our national income.[1]

The Market for Medical Care[2]

The market for medical care does not work like other markets. In most markets, prices and quality indicators are transparent — clear and readily available to consumers. Health care is different: Prices are difficult to obtain and often meaningless when disclosed. Most patients never learn the true cost of their care. Why do doctors and hospitals fail to disclose prices prior to treatment? Because they do not compete for patients based on price. Many public health advocates and health policy experts have long believed that most patients are incapable of assessing the quality and necessity of medical services, and that paying at the time of service is a barrier to receiving the care patients need. Furthermore, these advocates believe medical care should not be allocated on the basis of price through a market system.

Prices and the Demand for Medical Care. Public health advocates often cite Nobel Laureate Kenneth Arrow, who authored the classic 1963 journal article "Uncertainty and the Welfare Economics of Medical Care."[3] Arrow asserted that medical care does not have many of the characteristics of other consumer markets, and that patients do not respond like typical consumers. For instance, while food or housing needs are relatively constant, consumers go for years requiring little medical care, then suddenly become afflicted with a life threatening condition. Economists have often argued that a dying patient's desire for life sustaining care does not follow a normal demand curve. Moreover, Arrow believed that patients are no match for savvy doctors' superior knowledge when discussing the need for a treatment or negotiating the price of a medical procedure.[4]

> *"Patients pay 11 cents out of pocket for each dollar of health care they consume."*

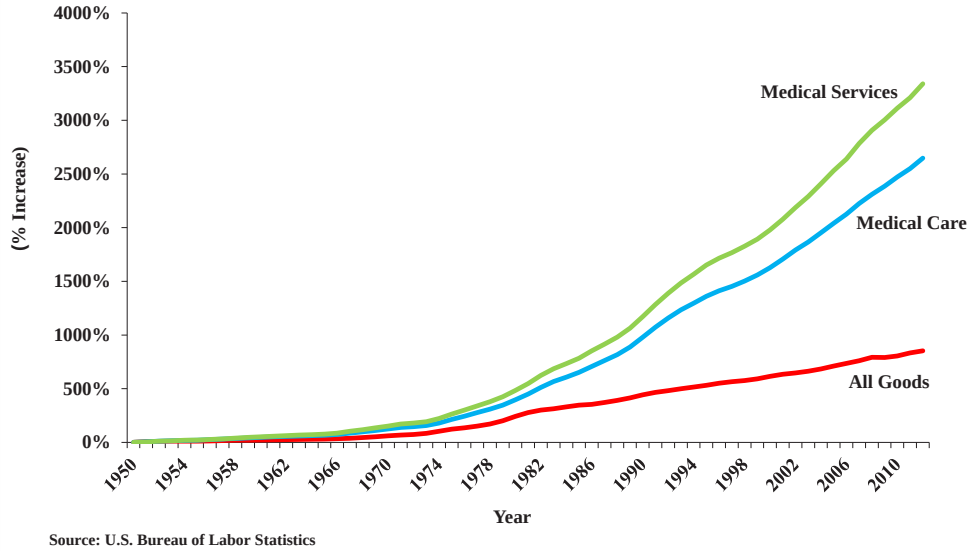
Even when patients do know the prices, they usually pay only a fraction of the total cost; thus, prices do not affect their demand for medical services. For their part, doctors often do not even know the prices of the services they perform. Doctors, therefore, do not compete on prices to attract patients or compete with other doctors. Because the cost of patient care is mostly paid by third parties — employers, insurance companies or government — patients never make price comparisons, and they do not behave like consumers in a normal market. Consider:[5]

- For every $1 worth of hospital care consumed, patients pay only about three cents out of pocket, on the average; a third party pays the other 97 cents.
- For the health care system as a whole, every time patients consume $1 in services, they pay only 11 cents out of pocket.
- For every $1 worth of physician services consumed, a patient pays less than 9 cents out of pocket, on the average.

When consumers pay only a small percentage of their medical bills directly, they have little reason to learn about prices — or care whether the service is a good value for the dollars spent. Thus patients consume hospital services until those services are worth only three cents on the dollar, on the average. For the health care system as a whole, patients have an incentive to utilize everything modern medicine offers until the marginal benefit to them is only 11 cents out of the last dollar spent. And patients have an incentive to consume physicians' services until they are worth only 9 cents on the dollar.

For example: assume physician visits costs an insurer $91, while the enrollee only has a $9 copayment. Insured patients with even trivial health complaints will schedule physician appointments until those services are no longer even worth the $9 copay. A patient who paid the entire bill directly would be more price-sensitive and weigh whether or not a $100 physician visit was worth the $100 cost, rather than whether it was worth a $9 copayment.[6] Moreover, if patients paid a larger

Figure I
Health Care Inflation
(1950-2012)



Source: U.S. Bureau of Labor Statistics

share of the cost of their medical care, they would ask about alternatives prior to ordering an expensive diagnostic scan, and likely look for the best price if it is needed.[7]

Wages and the Cost of Medical Care. Economists have long known that workers themselves bear the entire cost of employee health benefits *indirectly*, in the form of lower take-home pay.[8] Health benefits are a form of noncash compensation in lieu of cash wages — mostly because employer-sponsored health coverage is tax free. In addition, the health plan premiums workers ultimately pay are a function of medical claims paid.[9] As a result, workers who receive medical care unknowingly pay *indirectly* for services they would deem a waste of money if they had to pay the costs *directly*.

Health Care Costs Rise When Others Pay. Prices for medical services have been rising faster than prices of other goods and services for decades. Indeed, the price of medical services has risen about 3,300 percent in a little over 60 years. The price of medical care in general has risen about 2,700 percent what it was in 1950. By contrast, inflation since 1950 has only boosted the prices we pay for consumer goods and services by about 800 percent. Thus, medical prices have been climbing at more than three times the rate of inflation.[10] [See Figure I.] Not only are health care prices soaring, health care spending is rising as well. Health care expenditures over the past 50 years rose as the proportion of health care paid for by third parties increased. Prior to the advent of Medicare and Medicaid in 1965, health care spending barely reached 6 percent of GDP. Today that figure is 18 percent.[11] [See Figure II.] Tax-subsidized employer spending on health care has also increased. These factors, rather than the cost of new technology and drugs, explain why health care costs outpace the growth in national income. Why? Because, when people enter the medical marketplace, they are almost always spending someone else's money.

Health Markets without Third-Party Payers

To examine a medical marketplace where third-party payment is all but absent, consider the cosmetic surgery industry. Cosmetic surgery is one of the few types of medical care for which consumers pay almost exclusively out of pocket. Even so, the demand for cosmetic surgery has exploded in recent years. Estimates vary, but according to the American Society of Plastic Surgeons (ASPS), 1.6 million cosmetic surgical procedures — and another 13.0 million minimally-invasive cosmetic procedures — were performed in 2012.[12] The American Society for Aesthetic Plastic Surgery (ASAPS) has a slightly lower estimate of the market for elective cosmetic procedures — about 12.6 million.[13]

Even that number is more than 10 times the number performed two decades ago. And the market continues to grow. One estimate puts the number of cosmetic procedures that will be performed in the United States in 2015 at 55 million — four times the number performed in 2005. Surgical procedures are growing at nearly 8 percent annually, while minimally–invasive cosmetic services are growing 28 percent each year.[14]

Free Market Medicine: Cosmetic Surgery. Though health care inflation is robust for those services paid by third-party insurance, prices

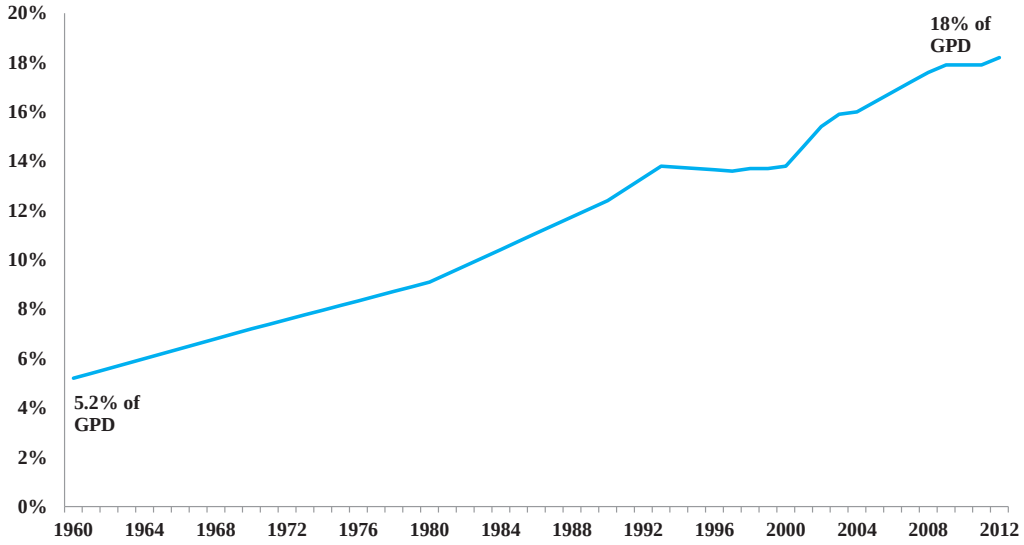
are rising only moderately for services that patients buy directly. For example, the real (inflation-adjusted) price of cosmetic surgery fell over the past two decades — despite a huge increase in demand and considerable innovation. [See Figure III.]

Cosmetic Surgery Prices. Despite the huge increase in demand, cosmetic surgeons' fees have remained relatively stable. Since 1992, medical care prices have increased an average of 118 percent and the price of physician services rose 92 percent. [See Figure III.] The price of all goods, as measured by the consumer price index (CPI), increased 64 percent. Yet, cosmetic surgery prices only rose about 30 percent. While medical care prices generally rose almost twice as fast as the CPI, cosmetic surgery prices went up less than half as much. Thus, while the real price of health care paid for by third parties rose, the real price of self-pay medicine fell.

In addition, Figure III shows that during downturns in the economy, consumers become more price-sensitive and providers respond accordingly with more competitive prices.[15] Note that this did not occur for medical care or physician services paid by third parties.

Keeping Costs Down. What explains the price stability of cosmetic surgery? One reason is patient behavior. When patients pay with their own money, they have an incentive to educate themselves — to become savvy consumers. A second reason is supply. As more people demanded the procedures, more surgeons began to provide them. Licensed medical doctors are free to obtain training and perform the cosmetic procedures they feel qualified to perform. Physicians also hire trained aestheticians, or hire or partner with nurses or physician assistants to assist with minimally-invasive cosmetic treatments. Thus, entry into the field is not restricted to board-certified plastic surgeons.[16] A third reason is efficiency. Many providers construct operating rooms in their clinics — a less expensive alternative to outpatient hospital surgery. Surgeons generally adjust their fees to stay competitive and usually quote patients a package price. Absent are the gatekeepers, prior authorization and large medical office billing staffs needed when third-party insurance pays the fees. A fourth reason is the emergence of substitute products. (See below.)

Figure II
U.S. Health Care Expenditures
(Percent of GDP)



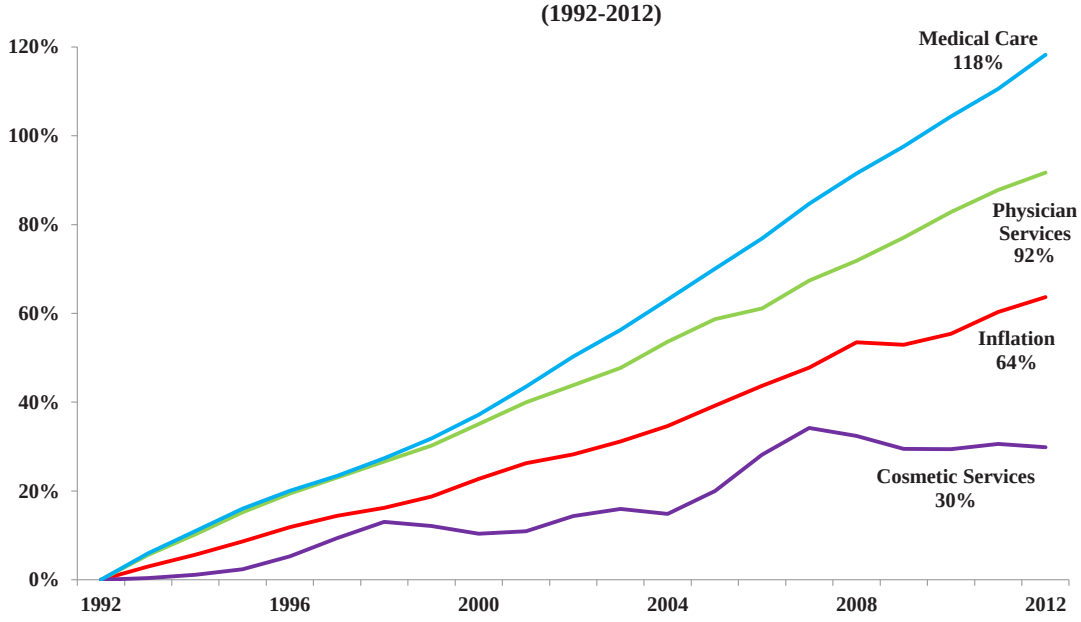
Source: U.S. Department of Health and Human Services.

Cosmetic Surgery and Innovation. People commonly assume that innovation increases the cost of health care. But in cosmetic surgery, innovation often lowers the cost. Take facelifts, for example. Surgical fees for facelifts increased about 50 percent between 1992 and 2012 (just slightly less than inflation), according to data from the ASPS.

Cheaper, minimally invasive and nonsurgical procedures that diminish the appearance of aging have helped hold the cost of facelift surgery in check, including laser resurfacing ($1,113 to $2,222), botulism toxin injections ($369), collagen injections ($428 to $529), chemical peels ($712), dermabrasion ($1,262) and fat injections ($1,604). These less invasive (and less expensive) procedures are attractive, compared to a facelift costing $6,630 in surgeons' fees alone.

Cosmetic surgeons also have incentives to find new products for their customers. Whereas the volume of surgical procedures increased 80 percent during the past 15 years,

Figure III
Nominal Health Care Inflation
(1992-2012)



Note: Cosmetic Services is a 3-year moving average.

Source: Devon M. Herrick, National Center for Policy Analysis. Author's calculations using data from the American Society of Plastic Surgeons; and Consumer Price Index, U.S. Bureau of Labor Statistics, U.S. Department of Commerce.

the volume of minimally-invasive procedures (such as Botox, laser skin resurfacing, skin rejuvenation, laser hair removal) increased by 461 percent.[17] Substitute procedures such as laser hair removal and body contouring are now commonplace.[18]

The Market for Physician Services. Americans see their doctors more than a billion times each year. They make another 136 million visits to hospital emergency rooms and 96 million visits to outpatient departments annually. Patients rarely discuss price in advance of receiving medical care — or know the cost after the service is provided. In fact, the doctors who perform medical procedures often do not know how much they will be paid for their services to a specific patient. Provider fees are negotiated in advance with networks or set by Medicare/ Medicaid, and every health plan or third-party payer provides slightly different payment rates.

Physicians are arguably the only professionals in our society who do not commonly disclose prices to their customers or compete on price. In a very real sense, doctors (and hospitals) do not compete for patients at all — at least not in the way normal businesses compete for customers in competitive markets. This lack of competition for patients has profoundly affected the quality and cost of health care. Long before a patient enters a doctor's office, third-party bureaucracies determine which medical services they will pay for (and how much), and which ones they will not. This practice has created a highly artificial market which departs in many ways from how other markets function.

In most areas of medicine, physicians find little incentive to repackage, reprice or bundle their services in patient-pleasing ways, because doing so would not increase their revenue. When demand or technology changes or new information becomes available, individuals in every other profession have incentives to rebundle their services and charge a different market price. For example, the growth of information technology has had a profound effect on the way intellectual property is shared and distributed. Yet, because most health plans refuse to reimburse for telephone or email consultations, most doctors will not consult with their patients this way. New opportunities, such as information technology, are critical to accountants, lawyers, engineers and, architects when competing for customers, but the health care industry ignores them.

During any discussion about why doctors and hospitals do not discuss prices prior to providing services, participants invariably claim that price comparison is impractical. Indeed, the medical community insists that surgical procedures are not homogenous services that can be treated like commodities or priced alike. For instance, if a patient needing coronary bypass graft surgery inquires about the price, he is generally told the price cannot be determined in advance, because each patient is different and may require

different levels of care. The attending physician, hospital or surgeon cannot predict the exact amount of blood that might need replacing. The number of sutures and bandages, or operating theater time or recovery time could vary. The time required to convalesce until able to go home also varies from patient to patient. Indeed, doctors will insist they cannot compete for patients on price because no two patients are exactly alike.

However, the argument about patient diversity apparently does not deter doctors who provide services that third-party payers do not cover, such as cosmetic procedures and corrective eye surgery. In these health care markets, providers behave much differently. Indeed, entrepreneurial physicians compete for patients' business by offering greater convenience, lower prices and innovative services unavailable in traditional clinical settings. Consider the ubiquitous emails that deal-of-the-day website subscribers receive every day from firms offering goods and services at greatly reduced prices.

Medical Services in the Information Age

So-called deal-of-the-day websites are Internet marketing firms that compete to attract price-sensitive customers with heavily-discounted goods and services for a limited period of time. These daily deal offers are emailed en mass to millions of subscribers. Discounted services range from restaurant meals to concerts to sporting events — even health care. The firm Groupon is probably the best known, but LivingSocial and imitators have also begun to flood the market.

A quick Internet search of Groupon and LivingSocial finds numerous medical-related services at highly discounted prices. Among them: Botox, corrective eye surgery, dental teeth cleaning, teeth whitening, laser hair removal, laser facial resurfacing, cosmetic fillers, spider vein and brown spot removal, and numerous other cosmetic procedures. The prices defy conventional wisdom that a doctor would never advertise a bundled price — much less extend the offer to hundreds of thousands of random people, sight-unseen, in a mass emailing. Yet these offers arrive in millions of email inboxes in cities across the United States every day. The competition is astonishing!

Botulism Toxin. Consider botulism toxin injections, such as Botox and Dysport. According to surveys by the American Society of Plastic Surgeons (ASPS), the cost to have a physician administer botulism toxin ranged from $366 in 2000 to $501 in 2007.[19] Likely due to the recession — and competition — the price fell back to $369 in 2012, the average cost a decade earlier. More than 1,000 people commented on their experience receiving Botox on the website RealSelf.com over the past several years — reportedly spending an average price of $425 per episode.[20] Yet a recent review of offers on Groupon and LivingSocial shows Botox deals occasionally offered as low as $99.[21]

Liposuction. The price of liposuction steadily increased from $1,622 in 1992 to $2,852 in 2012. Nearly 900 patients have written reviews of the procedure on RealSelf.com — reporting an average cost of $5,875.[22] Liposuction can be performed on more than one body location at a time, with discounts for multiple areas performed in the same session; as a result, price comparisons are difficult. Yet, a review of deal-of-the-day web sites found offers from physicians willing to perform liposuction on one area for $999.[23]

Laser Facial Resurfacing. Deal-of-the-day websites have launched another round of strong price competition between providers of laser facial resurfacing. According to surveys by the ASPS:

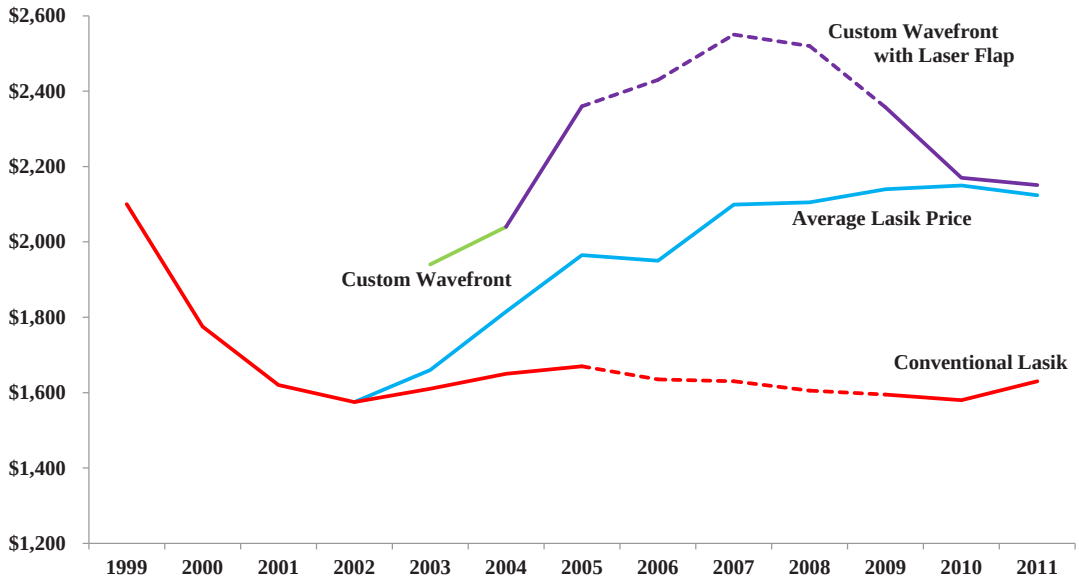
- The average surgeon's fee for laser skin resurfacing was $2,556 in 1996, rising to nearly $2,800 by 1998 but falling back to $2,222 by 2007.
- During this same period, some physicians introduced less intensive nonablative (fractional) CO_2 lasers to the market, such as Fraxel® and SmartXide® DOT. Newer fractional lasers use a matrix of tightly-packed laser dots that reduce the time required to heal, which has greatly increased the popularity of these less invasive procedures.

In 2008, the ASPS began tracking nonablative (fractional) laser skin resurfacing procedures:

- The average fee for nonablative laser skin resurfacing in 2008 was $1,359, falling to $1,113 by 2012, with the actual price varying from doctor to doctor and by the size of the area treated.[24]
- According to consumer reviews, 88 consumers paid an average of $1,525 for SmartXide DOT fractional laser resurfacing;[25]
- Fraxel cost $1,750, on average, based on 592 reviews.[26]

In Dallas, numerous deals for

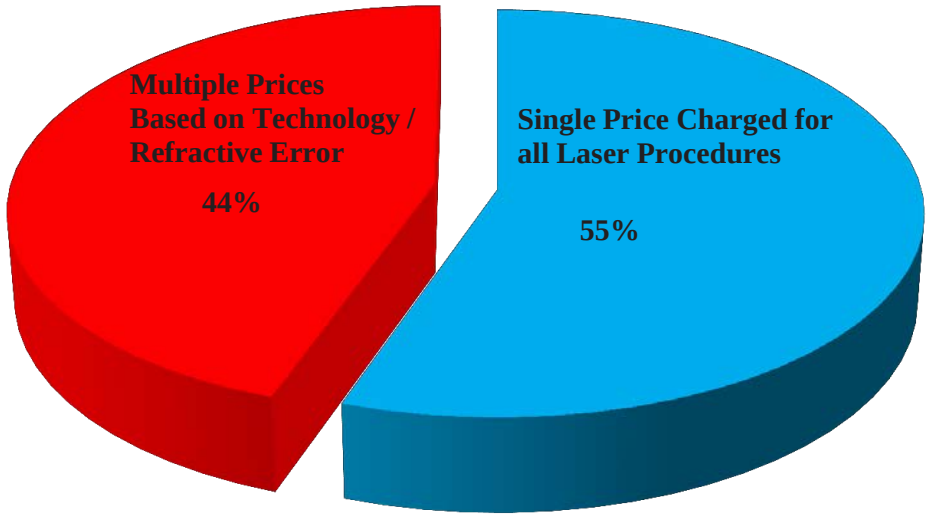
Figure IV
Average Lasik Prices
(1999-2011)



Source: Author's tabulations using data from multiple published sources, including: MarketScope LLC, cited in Ha T. Tu and Jessica H. May, "Self-Pay Markets in Health Care: Consumer Nirvana or Caveat Emptor?" *Health Affairs*, Vol. 26, No. 2, February 6, 2007, pages w217-w226; and Liz Segre, "Cost of LASIK Eye Surgery and Other Corrective Procedures," AllAboutVision.com, November 8, 2012.

Note: Dashed line represent estimated prices to replace missing data.

Figure V
Package Prices vs. Multiple Prices
(Laser Eye Surgery 2011)



Source: AllAboutVision.com. 2011 data provided by independant opthamology analyst.

SmartXide DOT laser resurfacing appear on both Groupon and LivingSocial, for $299.[27] One of the sponsoring firms offers memberships where Groupon and Living Social customers can be converted into spa "members." The spa's $149/month one-year contract allows members to choose among more than two dozen different cosmetic services and use any two services a month as a benefit of membership.[28] Laser skin resurfacing with the SmartXide DOT laser counts as two treatments. In other words, with a one-year membership, customers can purchase a $1,500 laser treatment for $149 — about 90 percent less than the average physician fee in the marketplace.

Quality Competition: Corrective Eye Surgery. Wherever price competition exists, competition in quality naturally follows. In the Lasik surgery market, for example, patients can choose traditional Lasik or newer, more advanced procedures. From 1999 (when eye doctors began performing Lasik in volume) through

2011, the price of conventional Lasik fell about one-fourth due to intense competition. Average prices for conventional Lasik hovered just above $2,100 per eye in 1999 compared to about $1630 per eye in 2011.[29]

In patients with myopia (near sightedness) the eye cornea is too round; in hyperopia (farsightedness) it is too flat. However, patients often have subtle differences in the shape of their corneas that affects their results. By the early 2000s, eye surgeons had developed the ability to map the shape of the cornea and customize the surgery to each patient's unique condition. Technology, such as Custom Wavefront (that customizes the surgery to an individual's specific eye characteristics) and IntraLase (a bladeless surgery with a laser-created incision) began to improve the quality of Lasik and achieve superior results compared to traditional Lasik. When customized to the individual, a laser can reshape the cornea to improve vision often better than 20/20. Eye surgeons who wanted to charge more began to demonstrate they provided better quality.

By 2011, the average price per eye for doctors performing Wavefront Lasik with a laser-created incision was $2,151 per eye.[30] In other words, the nominal price of advanced Lasik surgery (not adjusted for inflation) is about what conventional Lasik cost more than a decade ago, but the quality is far better. [See Figure IV.] In inflation-adjusted terms, these costs reveal a huge price decline, considering the cost of most other medical services has risen at more than twice the rate of general inflation over the past few years. For example:

- If conventional Lasik surgery had merely tracked inflation, the price would currently run about $2,850 per eye.
- If conventional Lasik tracked medical inflation, the price would have reached around $3,360 per eye by now.
- However, conventional Lasik was about $1,630 per eye in 2011, with most people opting for the more advanced Lasik surgery at an average cost of $2,150 per eye.
- Indeed, 95 percent of surgeons surveyed report charging from $1,501 to $2,500 per eye for Wavefront Lasik with a laser-created flap — most quote a single price inclusive of all services.[31] [See Figure V.]

"Cosmetic surgery provides price competition because patients pay the bills."

This change represents a huge decrease in the inflation-adjusted price, along with a large increase in quality.

Conclusion

Both economic studies and common sense confirm that people do not shop carefully and prudently when someone else is picking up the tab. Thus, health care spending has increased because third parties — employers, insurance companies or government — pay almost all the bills. When patients pay their own medical bills, they become conservative, market savvy consumers. Moreover, when patients pay their own medical bills, doctors and clinics respond with price competition, seeking innovative ways to attract new patients. The contrast between cosmetic surgery and other medical services is important. One sector reveals a competitive marketplace and stable prices. The other does not.

Endnotes

1. National Health Expenditure, which was 17.9 percent in 2012, is expected to climb to 19.6 percent by 2021. See "NHE Projections 2011-2021," National Health Expenditure Data, Centers for Medicare & Medicaid Services, U.S. Department of Health & Human Services, June 12, 2012.

2. See discussion in Devon M. Herrick and John C. Goodman, "The Market for Medical Care: Why You Don't Know the Price; Why You Don't Know about Quality; And What Can Be Done about It," National Center for Policy Analysis, Policy Report No. 296, February 2007. Available at http://www.ncpa.org/pdfs/st296.pdf.

3. Kenneth J. Arrow, "Uncertainty and the Welfare Economics of Medical Care," *Economic Review*, Vol. 51, No. 5, December 1963. Available at http://www.who.int/bulletin/volumes/82/2/PHCBP.pdf.

4. Ibid.

5. National Health Expenditure, which was 17.9 percent in 2012, is expected to climb to 19.6 percent by 2021. See "National Health Expenditures by type of service and source of funds, CY 1960-2011," National Health Expenditure Data, Centers for Medicare & Medicaid Services, U.S. Department of Health & Human Services, 2012. Available at http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/

Downloads/NHE2011.zip.

[6.] See Rexford E. Santerre and Stephen P. Neun, "The Relationship between Health Insurance and the Demand for Medical Services," in *Health Economics: Theories, Insights, and Industry Studies* (Chicago, Ill.: Irwin, 1996), page 53.

[7.] The price for a magnetic resonance image scan (MRI) or a computed topography (CT) scan can vary from $400 at a free-standing imaging center to more than $3,000 at a hospital outpatient clinic.

[8.] Jonathan Gruber, "Health Insurance and the Labor Market," National Bureau of Economic Research, Working Paper 6762, October 1998. Available at http://economics.mit.edu/files/69.

[9.] For a discussion of how claims can affect insurance premiums, see "Cost of the Future Newly Insured under the Affordable Care Act (ACA)," Society of Actuaries, March 2013. Available at http://cdn-files.soa.org/web/research-cost-aca-report.pdf.

[10.] Consumer Price Index, United States Bureau of Labor Statistics.

[11.] "NHE Summary Including Share of GDP, CY 1960-2011," National Health Expenditure Data, Center for Medicare & Medicaid Services, United States Department of Health and Human Services, 2012.

[12.] In addition, an additional 5.6 million reconstructive cosmetic procedures took place in 2012. "2012 Cosmetic Plastic Surgery Statistics," 2012 Plastic Surgery Statistics Report, American Society of Plastic Surgeons, 2013.

[13.] This number includes procedures performed by non-physician professionals performed under the supervision of a physician. See "Cosmetic Surgery National Data Bank: 2012 Statistics," The American Society for Aesthetic Plastic Surgery, 2013.

[14.] Tom S. Liu and Timothy A. Miller, "Economic Analysis of the Future Growth of Cosmetic Surgery Procedures," *Plastic & Reconstructive Surgery*, Vol. 121, No. 6, June 2008.

[15.] The income elasticity of demand varies by procedure. Some procedures are inferior goods; some are necessities, and others are luxury goods. See Lara L. Devgan and Robert T. Grant, "Is Plastic Surgery A Luxury Good? An Economic Analysis of Income Elasticity of Demand for Commonly Performed Plastic Surgery Procedures," *Plastic & Reconstructive Surgery*, Vol. 126, Supplement 4S, October 2010, pages 117-118.

[16.] This is especially true for minimally-invasive procedures like Botulism toxin, skin rejuvenation, laser hair removal and so forth.

[17.] "Cosmetic Surgery National Data Bank: 2012 Statistics," American Society for Asthetic Plastic Surgery, 2013.

[18.] American Society of Plastic Surgeons and the American Society for Aesthetic Plastic Surgery.

[19.] American Society of Plastic Surgeons website.

[20.] "Botox Worth It? Reviews, Forum, Photos, Costs," RealSelf.com website. Accessed April 25, 2013. Available at http://www.realself.com/Botox/reviews.

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[30.] Liz Segre, "Cost of LASIK Eye Surgery and Other Corrective Procedures," AllAboutVision.com, November 8, 2012.

[31.] Ibid.

The NCPA is a nonprofit, nonpartisan organization established in 1983. Its aim is to examine public policies in areas that have a significant impact on the lives of all Americans — retirement, health care, education, taxes, the economy, the environment — and to propose innovative, market-driven solutions. The NCPA seeks to unleash the power of ideas for positive change by identifying, encouraging and aggressively marketing the best scholarly research.

Health Care Policy.

The NCPA is probably best known for developing the concept of Health Savings Accounts (HSAs), previously known as Medical Savings Accounts (MSAs). NCPA President John C. Goodman is widely acknowledged (*Wall Street Journal*, WebMD and the *National Journal*) as the "Father of HSAs." NCPA research, public education and briefings for members of Congress and the White House staff helped lead Congress to approve a pilot MSA program for small businesses and the self-employed in 1996 and to vote in 1997 to allow Medicare beneficiaries to have MSAs. In 2003, as part of Medicare reform, Congress and the President made HSAs available to all nonseniors, potentially revolutionizing the entire health care industry. HSAs now are potentially available to 250 million nonelderly Americans.

The NCPA outlined the concept of using federal tax credits to encourage private health insurance and helped formulate bipartisan proposals in both the Senate and the House. The NCPA and BlueCross BlueShield of Texas developed a plan to use money that federal, state and local governments now spend on indigent health care to help the poor purchase health insurance. The SPN Medicaid Exchange, an initiative of the NCPA for the State Policy Network, is identifying and sharing the best ideas for health care reform with researchers and policymakers in every state.

NCPA President John C. Goodman is called the "Father of HSAs" by *The Wall Street Journal*, WebMD and the *National Journal*.

Taxes & Economic Growth.

The NCPA helped shape the pro-growth approach to tax policy during the 1990s. A package of tax cuts designed by the NCPA and the U.S. Chamber of Commerce in 1991 became the core of the Contract with America in 1994. Three of the five proposals (capital gains tax cut, Roth IRA and eliminating the Social Security earnings penalty) became law. A fourth proposal — rolling back the tax on Social Security benefits — passed the House of Representatives in summer 2002. The NCPA's proposal for an across-the-board tax cut became the centerpiece of President Bush's tax cut proposals.

NCPA research demonstrates the benefits of shifting the tax burden on work and productive investment to consumption. An NCPA study by Boston University economist Laurence Kotlikoff analyzed three versions of a consumption tax: a flat tax, a value-added tax and a national sales tax. Based on this work, Dr. Goodman wrote a full-page editorial for *Forbes* ("A Kinder, Gentler Flat Tax") advocating a version of the flat tax that is both progressive and fair.

A major NCPA study, "Wealth, Inheritance and the Estate Tax," completely undermines the claim by proponents of the estate tax that it prevents the concentration of wealth in the hands of financial dynasties. Senate Majority Leader Bill Frist (R-TN) and Senator Jon Kyl (R-AZ) distributed a letter to their colleagues about the study. The NCPA recently won the Templeton Freedom Award for its study and report on Free Market Solutions. The report outlines an approach called Enterprise Programs that creates job opportunities for those who face the greatest challenges to employment.

Retirement Reform.

With a grant from the NCPA, economists at Texas A&M University developed a model to evaluate the future of Social Security and Medicare, working under the direction of Thomas R. Saving, who for years was one of two private-sector trustees of Social Security and Medicare.

The NCPA study, "Ten Steps to Baby Boomer Retirement," shows that as 77 million baby boomers begin to retire, the nation's institutions are totally unprepared. Promises made under Social Security, Medicare and Medicaid are inadequately funded. State and local institutions are not doing better — millions of government workers are discovering that their pensions are under-funded and local governments are retrenching on post-retirement health care promises.

Pension Reform.

Pension reforms signed into law include ideas to improve 401(k)s developed and proposed by the NCPA and the Brookings Institution. Among the NCPA/Brookings 401(k) reforms are automatic enrollment of employees into companies' 401(k) plans, automatic contribution rate increases so that workers' contributions grow with their wages, and better default investment options for workers who do not make an investment choice.

The NCPA's online Social Security calculator allows visitors to discover their expected taxes and benefits and how much they would have accumulated had their taxes been invested privately.

Environment & Energy.

The NCPA's E-Team is one of the largest collections of energy and environmental policy experts and scientists who believe that sound science, economic prosperity and protecting the environment are compatible. The team seeks to correct misinformation and promote sensible solutions to energy and environment problems. A pathbreaking 2001 NCPA study showed that the costs of the Kyoto agreement to reduce carbon emissions in developed countries would far exceed any benefits.

Educating the next generation.

The NCPA's Debate Central is the most comprehensive online site for free information for 400,000 U.S. high school debaters. In 2006, the site drew more than one million hits per month. Debate Central received the prestigious Templeton Freedom Prize for Student Outreach.

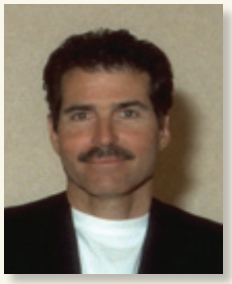
Promoting Ideas.

NCPA studies, ideas and experts are quoted frequently in news stories nationwide. Columns written by NCPA scholars appear regularly in national publications such as the *Wall Street Journal*, the *Washington Times*, *USA Today* and many other major-market daily newspapers, as well as on radio talk shows, on television public affairs programs, and in public policy newsletters. According to media figures from Burrelles*Luce*, more than 900,000 people daily read or hear about NCPA ideas and activities somewhere in the United States.

What Others Say About the NCPA

"The NCPA generates more analysis per dollar than any think tank in the country. It does an amazingly good job of going out and finding the right things and talking about them in intelligent ways."

Newt Gingrich, former Speaker of the U.S. House of Representatives



"We know what works. It's what the NCPA talks about: limited government, economic freedom; things like Health Savings Accounts. These things work, allowing people choices. We've seen how this created America."

John Stossel,
host of "Stossel," Fox Business Network

"I don't know of any organization in America that produces better ideas with less money than the NCPA."

Phil Gramm,
former U.S. Senator

"Thank you . . . for advocating such radical causes as balanced budgets, limited government and tax reform, and to be able to try and bring power back to the people."

Tommy Thompson,
former Secretary of Health and Human Services

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