

Health Care Cost and Quality Transparency: Improving Health Care Affordability

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The proliferation of consumer directed health care solutions, particularly health savings accounts, is generating increased interest in medical price and quality information that is accessible to employers and consumers in advance of the decision to purchase.

The federal government has embarked upon an aggressive plan to accelerate the development of information resources to help support this growing consumer demand.

This report examines the current health care pricing environment, identifies some of the existing issues affecting development of accessible transparency resources and offers some suggestions about how to best proceed.

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Overview

The rapid rise in the cost of health insurance coverage is producing renewed interest in insurance products that carry significantly higher consumer share of cost. For traditional 1st dollar insurance coverage, this means increased co-pays, coinsurance rates and deductibles.

The advent of health reimbursement arrangements (HRAs) in 2002 and health savings accounts (HSAs) in 2004 has resulted in a marked increase in the number of consumers with high deductible health insurance plans (HDHP) for major expenses coupled with tax free HSAs or HRAs as an alternate means of funding 1st dollar health care needs.

These trends will ultimately reconnect many more consumers to the actual cost of the health care services they utilize, which will generate even more interest in consumer-friendly cost and quality information resources, often referred to as price and quality transparency or informatics.

There has always been a strong interest in measuring and reporting provider quality; believing that these efforts will eventually evolve into statistically significant metrics that could be used to reliably predict and improve the quality of future care.

Unfortunately, most currently available provider quality metrics are unreliable, in part due to the often subjective nature of quality determinations as well as the many confounding variables affecting health care outcomes. This results in a paucity of truly comparable data. Thus, the statistical significance and predictive reliability of quality metrics to date have been marginal.

Many quality metrics have common sense clinical import, but the question arises as to whether focusing on a small subset of the available metrics for reward (pay for performance initiatives) will actually improve population health; or will it merely promote their importance above other less common but perhaps even more important individual needs, thus leaving these unique issues under-addressed?

Also, many quality determinations have been molded around organizational interest in creating improved quality branding. Such quality determinations have usually been based on carefully selected criteria that an organization can both easily collect and analyze and in which they expect to excel, rather than universally accepted quality metrics.

This report will deal only superficially, if at all, with quality informatics; except as may be imputed from fee and cost data.

With regard to price data, there is an enormous amount of comparable data potentially available from a variety of different sources, including health plans, large employers as well as state and federal agencies.

The US Department of Health and Human services recently announced its intent to establish regional health care price and quality pilot studies that will develop models for health care transparency, based at least in part on volumes of federal cost data.

This report is intended to identify the many existing and future issues that will affect the goal of creating useful and accessible medical cost and quality information resources.

Terminology and Methodology

Coupling of high deductible health insurance coverage with tax-free consumer controlled health care accounts (HSAs, HRAs, FSAs etc.) is now being referred to as “**Consumer Directed Health Care**” or equivalently “**Consumer Driven Health Care**” (CDHC).

CDHC is by design a consumer centric approach to restraining the growing demand for health care services, the primary driver behind the dramatic rise in health care expenditures¹ and thus the cost of health care coverage.

While market penetration of CDHC solutions may be considered nascent at this point in time, HSAs are said to be one of the fastest growing health coverage innovations in US history.² Still, until a “tipping point” for CDHC solutions has been reached, real consumer demand for price information and to a lesser degree quality information will probably remain relatively low over the near term.

Value can be described as a subjective balance between cost, quality and need. For the purposes of this report, it is presumed that the average consumer will, if able, pursue health care services that he or she believes offer the best value.

In this report we segment today’s health care consumers according to their current forms of health insurance coverage since the type of insurance coverage largely determines the magnitude of out-of-pocket consumer spending.

This somewhat artificial segmentation of the marketplace and the accompanying analysis may be helpful in determining not only the size of the potential market, but also the design of future marketing plans.

Demand for, as well as the response to cost and quality information should increase with share of cost; i.e. higher out-of-pocket financial responsibility translates to increased consumer price sensitivity.

For example, consumers in tightly controlled managed care plans with generous 1st dollar coverage likely have very little interest in provider cost data, as out-of-pocket exposure is usually limited to small fixed co-pays. And, while consumers are interested in quality within the tight network of available providers, historically few consumers ever elect to pay significantly out-of-pocket for out-of-network care that is perceived to be of higher quality.

In the past, health plans and other third party payers including state and federal agencies have viewed public disclosure of provider specific medical fee data as contrary to their business interests or even contrary to the public good. Such disclosures under certain conditions have been deemed anticompetitive trade

practices.*† (See Price Transparency and Antitrust/ Anticompetitive Trade Practice Concerns on page 9)

Clearly, segments of the health care marketplace react quite differently to increased price and quality transparency.

This report examines six (6) broad categories of consumers according to type of insurance coverage (or lack thereof), and the likely degree of price elasticity (change in demand associated with changes in price) associated with each type of coverage (ordered by decreasing price elasticity):

1. Uninsured - (no health insurance coverage)
2. CDHC - (high deductible coverage with 1st dollar savings accounts - HSAs)
3. Conventional – (non-network based indemnity coverage)
4. PPO -Low Deductible Fee-for-Service Coverage (PPO, EPO etc.)
5. HMO - Health Maintenance Organizations (including POS plans)
6. Government (Medicare, Medicaid military and local government coverage, etc.)

Table 1 below estimates the approximate percentage of workers covered by plan types in 2005 according to the Kaiser Family Foundation – 2005 Employer Health Benefits Survey³ :

Table 1

Plan Type	Percent Covered[†]
CDHC	3.9%
Conventional	3%
PPO	61%
HMO/POS	36%

It is considered likely that individual coverage ratios mirror employer-based coverage, although as many as 31% of individuals choosing HSA qualifying HDHPs in 2005 were previously uninsured and thus this assumption may understate the number of CDHC consumers over time.⁴

Table 2 below shows the most current (2005) US Census Bureau data⁵ regarding types of insurance coverage:

Table 2

Coverage	Number of Persons (millions)	Percentage
Uninsured	45.8	15.7%
Employer Based Coverage	174.2	59.8%
Direct Purchase	27.0	9.3%
Government Coverage	79.1	27.1%

* See Statements of Antitrust Enforcement Policy in Health Care, Issued by the U.S. Department of Justice and the Federal Trade Commission, August 1996, <http://www.usdoj.gov/atr/public/guidelines/1791.htm>

† Arizona v. Maricopa County Medical Society, 457 U.S. 332 (1982), <http://caselaw.lp.findlaw.com/cgi-bin/getcase.pl?navby=case&court=us&vol=457&page=348>

‡ CDHC HDHPs may be either PPOs HMOs, conventional coverage or POS plans, thus total exceeds 100%

Table 3 below combines the estimates from tables 1 and 2 including some very rough estimates of the number and percentage of Americans within each of the six consumer groups in 2006 based on historical data and projections.

Table 3

Type of Coverage	Percentage	People (millions)
Uninsured	15.7%	46.7
CDHC	1.1%	3.3
PPO	34.1%	101.5
Conventional	1.7%	5.1
HMO/POS	20.2%	60.1
Government Coverage	27.2%	81.0
Total:	100.0%	297.7

In this report we assume, as was demonstrated by the Rand Health Insurance Experiment⁶, that consumer demand responds more to personal out-of-pocket expenditures than to the cost for a third party, e.g. consumer demand is significantly less when consumers must pay the bill than when insurance pays the bill for them.

Also, we assume that a decision to purchase based on value can only be modified if a consumer has both the ability to choose which services to purchase and knowledge of the relative cost and quality of the service in advance of the decision to purchase.

It is important to realize that price elasticity may be based on non-specific cost assessments. For instance, if one is buying socks, many consumers may choose to buy in bulk at a warehouse store rather than at a high-end clothing store. Most do not know the exact difference in cost, but have developed a general sense of the relative affordability of the two purchasing venues.

Environmental Analysis

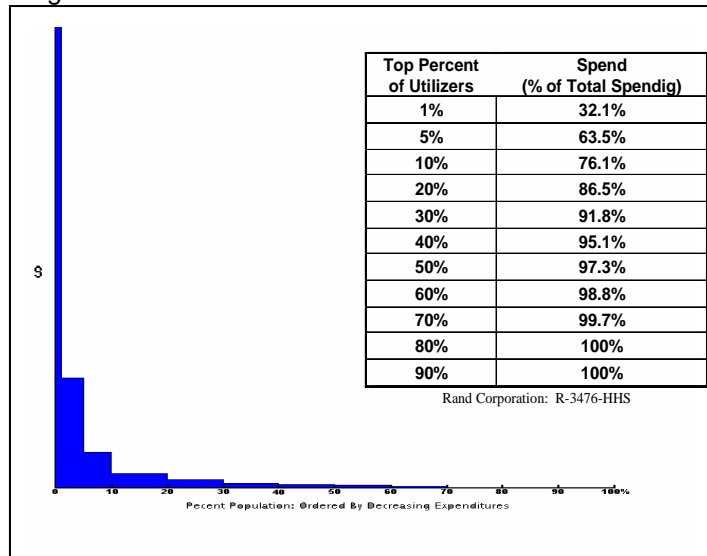
Demographics of Health Care Spending

In developing viable market-based transparency solutions, it is critical to understand the underlying demographics of health care spending. Diagram 1 below derived from Rand Health Insurance Experiment⁶ data illustrates the amount of annual health care expenditures for various percentile groups under the age of sixty-five.

For example, the top ten percent of health care spenders under the age of sixty-five are expected to account for approximately seventy-six percent of total annual health expenditures. Of note, how much one spends for health care in any one year is rather random and not well predicted by either prior spending or health status.⁷

The healthiest 50% of the population spends only 2.7% of the total, and estimates for average annual health care spending for the healthiest 90% of persons under the age 65 have been variously reported at around \$500 per person per year.

Diagram 1



Annual spending: percentile groups ordered by decreasing expenditures

Thus, for the vast majority of people who are generally healthy at any one time, annual health care expenditures are relatively low.

In terms of pricing access to health care cost information, the healthiest consumers are likely to have limited interest in comparative price data until they begin to experience more costly illnesses or injuries.

This demographic reality clearly affects what the healthy will pay in advance for access to comparative fee information, and also how active they will be in using this information.

Those with larger annual health care expenditures will have considerable differences in price sensitivity and demand for price information depending on the type of insurance coverage as discussed above.

Actual Cost

The actual price consumers pay today rarely depends on a provider's stated fees alone.

Over the past 45 years, usual and customary fees (what providers actually charge) have skyrocketed as providers tried to keep up with medical inflation and recoup losses in revenue arising from the tremendous increase in negotiating leverage of large health plans and government payers.

Today, most providers are reimbursed according to third party fee schedules that pay far less than what providers actually charge on claims submitted. Twenty-five years ago providers collected as much as 90% or more of their usual and customary fees. Today that number is significantly less, perhaps in the range of 50% or less for the majority of providers. Long ago most providers abandoned the practice of periodically increasing their usual and customary fees since payment was no longer based on provider fees for the majority of patients.

Cash Consumers

The uninsured represent the majority of cash consumers. Of the six groups studied in this report, only the uninsured and perhaps those very few people who still have pure indemnity coverage with coinsurance pay based primarily on provider charges alone.

Unfortunately, the uninsured are often lower wage earners and are frequently responsible to pay full usual and customary charges that appear quite exorbitant when compared to the actual cost of care or to what commercial or government payers would reimburse for exactly the same services.

A growing population of CDHC consumers that spends out-of-pocket for 1st dollar care is insured and usually has access to network discounts. Still some will likely become elective cash consumers as price transparency improves the ability to identify more affordable services whether in or out of network.

Prompt Payment/ Cash Discounts

While the uninsured certainly have fewer options, the current environment does provide some opportunity.

The administrative overhead associated with providers billing a myriad of small charges to countless private and government insurers, only to receive pennies on their billed dollar is, at minimum, inefficient.

Discounts for full payment at the time of or prior to service, with no administrative or billing overhead are extraordinarily cost effective in comparison to insurance claims. In fact, “cash” discounts can be in excess of 50% in some markets.[§]

There are a variety of barriers to this kind of savings. Some states have consumer laws that prohibit different charges for different customers, and even protect insurance companies from providers charging consumers less than insurance companies.

A strategy employed to overcome these obstacles is to recognize that a “cash discount” is in reality a “term of payment”. The price charged to various customers is the same, but actual amount collected is based on the terms of payment. For example: “1% 10 Net 30” is a common business abbreviation meaning payment due in 30 days, 1% discount if paid within 10 days. So a 50% “prompt/ cash payment discount” could be expressed as the following term of payment “50% 0 Net 30”: 50% discount if paid day 0 (date of service or before), full payment thereafter.

In many states, providers would likely need to make such prompt payment offers to any payer who could meet the stated terms, for instance to an insurer writing a check to a surgeon for the full discounted amount prior to an insured’s elective surgical procedure. Clearly discounts of this sort are largely impractical for emergent services unless payment windows are modified to reflect the exigencies of emergent care.

[§] Consumer Directed Health Care, Inc., proprietary information.

Also, there must be a clear understanding in advance between all parties about what is covered by the cash payment and what will happen should additional or unanticipated services be required, such as a complication following minor elective outpatient surgery requiring hospitalization, etc.

In addition to the uninsured, cash consumers may also include those with CDHC, HMO, PPO or even some types of government coverage who either want to purchase service that aren't covered by their insurance or who want to get care from providers outside the plan network.

With regard to price transparency for cash consumers, there are thus two related data points, the provider's usual and customary fee and the amount of "discount" perhaps in consideration of prompt payment which together yield the actual net cost to the consumer.

If a cash consumer wanted to purchase a particular service, for example based on a specific CPT code⁸, then a database that includes both non-discounted fees and prompt payment fees searchable by CPT code(s), geographic locale, relevant provider qualifications (board certification, years in practice, volume etc.) would likely be very desirable from a cash consumer's perspective.

An Affordability Index

Providers often render a variety of services during a single patient encounter. Often these services are not predictable in advance. And, a provider may have a relatively low charge for one particular service, but a much higher charge for another.

Moreover, it seems unlikely that consumers will choose to change providers based on specific cost comparisons amongst competitors each time a new service is needed.

Over time the actual cost to the consumer will be the sum of a number of different, often unpredictable charges, making meaningful specific price comparisons for extended care in advance problematic.

One way to manage this unpredictability might be to develop a provider specific "affordability index" based on the frequency a particular provider or group of similar providers bill for specific services, indexed against that provider's costs to the consumer.

For instance, if one were to identify the 100 most frequent CPT codes billed by cardiologists in a particular region, and the relative frequency of each of these codes during that same period of time, then one could calculate a provider specific, weighted "Affordability Index" for each cardiologist based on a basket of common services and the amount the consumer must pay each provider for that basket of services.

This kind of calculation would require an immense amount of historical data to be reliable. Fortunately this kind of historical data should be readily available from the Center for Medicare and Medicaid Studies, based on several decades of Medicare and Medicaid billing.

The actual cost to the consumer will vary significantly depending primarily on the type of insurance coverage. For example, the cost to the uninsured will likely be related to the provider's usual and customary charge, whereas the cost to an insured consumer seeking care from an in-network provider will be based on the contracted rate for that network provider and his coinsurance or co-pays.

So, to achieve useable price transparency across all groups, up-to-date usual and customary provider charges, as well as network allowable rates must be discoverable by consumers in advance.

Like the warehouse store example, consumers may then choose providers based on a general Affordability Index, as opposed to a complex specific cost comparison between numerous providers for largely unpredictable future needs.

Major or recurring expenditures, such as specific elective surgery, expensive medication, or a one time purchases of durable medical equipment might still be better purchased on a specific cost comparison basis.

Allowable Charge Transparency

Allowable charges are proprietary fee schedules that insurance companies use to determine what they will reimburse providers and what an insured must pay for his or her care. Often expressed as usual, customary and reasonable charges (UCR), exactly how these fees are determined remains largely a mystery since the insurance industry for the most part has considered this information proprietary.

In many cases they are determined by contracts with providers who agree to accept reduced payment in consideration of marketing by the insurance company and perhaps some degree of exclusivity with respect to which providers the insured are allowed to see (in-network providers, the basis of managed care).

As noted previously, actual out-of-pocket expenditures for insured populations (Government, HMO, PPO, Conventional and CDHC) are usually:

- (a) Fixed co-pays unrelated to allowable charges,
- (b) Tiered co-pays indirectly related to allowable charges or,
- (c) Coinsurance based on allowable charges.

According to the Rand Health Insurance Experiment⁶, as coinsurance rates and deductibles increase (increasing out-of-pocket cost) consumer demand for medical care decreases.

Those with fixed co-pays will have very little interest in or response to knowing the underlying cost of provider services since these fees have no direct effect on out-of-pocket spending.

Purchase decisions under tiered co-pays are affected by the varying degree of out-of-pocket cost, but as most co-pays still represent only a small fraction of actual provider cost, the effect on demand can be expected to be rather minimal in comparison to other more price sensitive forms of coverage.⁶

Those with CDHC coverage, especially those with HSA qualifying insurance that requires both high deductibles and 100% coinsurance rates below the deductible⁶, should be the most cost sensitive of all types of insured coverage.

Consumers with fixed co-pays, tiered co-pays, or relatively low coinsurance coverage account for approximately 83.2% of today's marketplace (see Table 3 on page 4), and can be expected to be relatively insensitive to increasing price transparency.

Effect of Increasing Price Transparency on Market Competition

As the CDHC market share grows, more consumers will be making purchase decisions based on the actual cost of provider services. Cash consumers are for the most part self-directing. Providers with more affordable published fees should, all other factors being equal, see increased volume.

A very price transparent market increasingly dominated by price sensitive consumers should significantly increase competition amongst providers, putting downward pressure on fees. In this kind of environment, one would expect to see a narrowing of the spread and an overall lowering of published fees for medical services.

Unfortunately, increased price transparency in a market dominated by insurance coverage that pays the lion's share of health care costs may produce exactly the opposite effect on provider fees. This is a common argument with respect to public disclosure of discounted in-network fees negotiated by health plans.

The rationale is that since these insured consumers are currently very insensitive to the actual cost of medical services the decision to purchase services is made irrespective of provider cost information. Thus, increased allowable charge transparency will merely induce providers to raise their fees in order to maximize their revenue. If Provider A sees that provider B gets paid more to have access to the same pool of insurance company C's patients, then provider A will demand a higher rate of reimbursement from insurance company C.

Price Transparency and Antitrust/ Anticompetitive Trade Practice Concerns

As discussed above, increasing price transparency in a market where third parties pay the bulk of health care expenditures may produce upward pressure on provider fees.

In *Arizona V. Maricopa County Medical Society*, 457 U.S. 332 (1982)** the US Supreme court found that publishing of maximum-allowed fees for specific physician services by the Maricopa County Medical Society was per se a price-fixing agreement, unlawful under the Sherman Act.

In 1996, the Justice Department and Federal Trade Commission published new antitrust enforcement policy in health care.^{††} This new policy recognized that under certain conditions, disclosure of specific health care provider fee information may be good for consumers. Not only did they describe safe harbors for these kinds of activities, but also moved from a strict "per se" enforcement

** *Arizona V. Maricopa County Medical Society*, 457 U.S. 332 (1982); <http://laws.findlaw.com/us/457/332.html>

†† Statements of Antitrust Enforcement Policy in Health Care, Issued by the U.S. Department of Justice and the Federal Trade Commission, August 1996, <http://www.usdoj.gov/atr/public/guidelines/1791.htm>

policy to a “rule of reason” policy regarding joint ventures between providers. In laymen’s terms this means that these regulatory agencies will consider the net effect of various activities on competition.

Even with the described safe harbors and the then new “rule of reason” enforcement policy, public disclosure of specific medical fee related information is probably best managed by non-providers.^{††}

Proprietary Interests Impeding Price and Quality Transparency

Charging and reimbursing for health care services has grown progressively more complicated, even as third party payers have tried to standardize the claims process. In fact, several organizations have developed complicated terminology codes in order to standardize the claims and reimbursement process.

For instance the American Medical Association has copyrighted protection for the use of its “Current Procedural Terminology” (CPT codes), which are now the standard language for physician claims and payment transactions, used by virtually all third party payers including state and federal governments.

Similarly, the American Dental Association developed and owns the right to the Current Dental Terminology (CDT codes)⁹.

Standardized terminology for like services clearly facilitates cost comparisons, but the proprietary nature of these coding systems also adds another administrative challenge and additional cost to the development of price transparency resources, as licenses for use can be quite expensive.

One wonders if there comes a time when a language used almost universally for decades by such an important industry loses its copyright protection; is there perhaps a prescriptive right of public use?

Or perhaps, these coding systems could be purchased by the government for the benefit of the public, contacting with the original owners for ongoing maintenance and updating?

Overcoming Provider Opposition

In a system currently dominated by third party payers and secretly negotiated prices, most providers and insurers are at a minimum reluctant to publicly disclose pricing data.

While business interests, as described previously in “Effect of Increasing Price Transparency on Market Competition” likely represent the original source of concern, over many years a psychological reluctance to discuss, much less publicly disclose one’s fees has become so entrenched for some providers that price competition and transparency is often viewed as unprofessional.

This is particularly true for medical professionals, some of whom actually view price transparency and competition with disdain. For these providers, voluntary public disclosure of price information is unlikely, and represents a significant barrier to developing useable transparency resources.

^{††} Statements of Antitrust Enforcement Policy in Health Care, Issued by the U.S. Department of Justice and the Federal Trade Commission, August 1996, Section 5, A, 1-3; <http://www.usdoj.gov/atr/public/guidelines/1791.htm#5>

Some states, such as California and Arizona already have laws requiring hospitals to publish charge data. Similar legislation for physicians, dentists and other health care professionals may be required if voluntary participation fails to satisfy the publics growing demand for cost information.

IT Resource Considerations

Building accessible price transparency resources will be challenging for many reasons, including those described above.

To be successful in the marketplace, these transparency resources will likely need to be:

- Affordable; access to this information must be reasonably priced.
- Consumer friendly; useable, accessible and understandable.
- Current; price information must reflect what the consumer will actually pay.
- Updateable; must permit and promote real-time cost competition amongst providers.

Conclusion

Health care price and quality transparency is an emerging necessity in a health care marketplace that is rapidly moving toward increased personal financial responsibility.

Hopefully this brief review will help system designers to more efficiently address the many issues and challenges ahead.

While there are many barriers and potential pitfalls, there is also great opportunity for those who can successfully develop resources that will ultimately fulfill the growing consumer demand and promote access to more affordable care.

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