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## Responsible HEALTH CARE REFORMAN PART 3: COST CONTROL AND EFFICIENCY

#### BY MAC MCCARTHY AND DAVE TUOMALA

## This is the THIRD ARTICLE in a four-part series about what actuaries see as ideal components of a health care reform package.

n the February/March 2010 issue we gave a high level overview of the issues as discussed at the November 2009 CCA annual meeting, breaking them down into Access, Cost and Funding aspects. In Part 2, in the April/May 2010 issue, we went into much more detail on Access to Care, based not only on the CCA workshop, but also a conference call and written input from the Healthcare Reform Taskforce (HRT).

Now we turn our focus to Cost Control and Efficiency issues. As before, we went back to the notes on the CCA workshop and then supplemented this with HRT conference calls—two this time on January 26 and February 9. We also received a number of e-mails with comments and suggested resources.

Health actuarial core competencies include estimating claim costs for future time periods, whether that be for determining insurance premiums, performing budget projections for self-insured employers, for retiree medical valuation assumptions, or determining the impact of a new plan design or provision. We are ultimately responsible for providing affordable and valuable health care programs at the most reasonable rate possible to people covered by insured or self-insured programs. It is essential that we have a solid understanding of how the health system works and what drives changes in claim costs. Our role leads us to understand the financial problems in the system and identify opportunities for improved efficiency and reducing cost trends. Further, our actuarial training and experience teach us the value of a far-sighted perspective, make us cognizant of the relationship between financial drivers and human behavior and skilled at projecting risk scenarios. Thus, we believe this group is uniquely qualified to offer solutions to cost and efficiency problems that plague our health care system and that we have an obligation to speak up at this time.

As with the earlier articles, there are many different actuarial perspectives on the most appropriate way to improve the health system, depending on the individual's professional experiences and perhaps their social philosophy. We strive to include an array of different perspectives of health actuaries, but due to space and personal limitations some may have been left out. To the extent the selection of what to include or our commentary contain any bias, this is a personal reflection on the authors, not on the CCA or any other organization with which we may be affiliated.

Congress has finally passed, and the president has signed, a health care reform bill, the Patient Protection and Affordable Care Act (PPACA). While it may be disappoint-

ing to some that fundamental cost control and health efficiency meacare sures were primarily focused on government programs, such as Medicare, we are hopeful that some elements of the reforms passed will help us move forward to meaningful efficiency and cost control. Much of the impact of health reform will depend on how effectively the changes are implemented and on regulations

yet to be formulated. There is still much to be done to improve our health care system, which will take a long time to accomplish. Indeed, the PPACA provisions are just the beginning and will not be fully implemented until 2018. It is difficult at this point to say to what extent aspects of PPACA will impact cost trends, but we believe that the recommendations outlined here are the most promising, regardless of the influence of the new law. Regardless, we view the suggestions presented here to be neither endorsements nor indictments of the reforms passed but rather suggestions for consideration: as regulations for implementation of PPACA requirements are formulated; as possible additional steps; or perhaps as alternatives should some initiatives be found to be ineffective.

#### FOOTNOTES:

<sup>1</sup> Truffer, et al. "Health Spending Projections Through 2019: The Recession's Impact Continues," *Health Affairs*, Feb. 4, 2010.

#### **DEFINING THE PROBLEM**

Without fundamental changes, current and growing financial problems will likely get even worse. The Centers for Medicare and Medicaid Services (CMS) reported earlier this year<sup>1</sup> that health care is now 17.3 percent of GDP, and that public expenditures are projected to exceed private expenditures by 2014. In addition, enrollment in employer-based health plans continues to decline and Medicaid is growing.

Reducing cost increases and increasing efficiency, thereby "bending the trend," remains essential for sustainable, accessible and affordable care.

The increasing cost of health care is sometimes oversimplified and considered to be a function of one single issue; for example, the profit motive of insurance carriers or pharmacy companies, insufficient competition, or due to overly high administrative costs in the industry. The reality is far more complex;

#### Private Health Insurance (\$Billions)\*

YEAR	PREMIUM	BENEFITS	ADMIN. & PROFIT	% OF PREM
2008	\$783.2	\$691.2	\$92.0	11.7%
2007	759.7	665.1	94.6	12.5%
2006	727.6	634.6	93.0	12.8%
2005	691.0	599.8	91.2	13.2%
2004	646.1	560.3	85.8	13.3%
2003	604.6	522.0	82.6	13.7%
2002	551.0	482.4	68.6	12.5%
2001	497.7	441.1	56.6	11.4%
2000	454.8	402.8	52.0	11.4%
	2008 2007 2006 2005 2004 2003 2002 2002	2008 \$783.2   2007 759.7   2006 727.6   2005 691.0   2004 646.1   2003 604.6   2002 551.0   2001 497.7	2008     \$783.2     \$691.2       2007     759.7     665.1       2006     727.6     634.6       2005     691.0     599.8       2004     646.1     560.3       2003     604.6     522.0       2002     551.0     482.4       2001     497.7     441.1	PROFIT       2008     \$783.2     \$691.2     \$92.0       2007     759.7     665.1     94.6       2006     727.6     634.6     93.0       2005     691.0     599.8     91.2       2004     646.1     560.3     85.8       2002     551.0     482.4     68.6       2001     497.7     441.1     56.6

\* Source: National Health Expenditures, table 12: http://www2.cms.gov/NationalHealthExpendData/downloads/tables.pdf.

This chart summarizes data on Private Health Insurance (PHI) obtained from the National Health Expenditure Accounts, which are the official estimates of total health care spending in the United States. It summarizes total premiums and benefit expenses as well as the remaining percentage used for administrative costs and insurer profit for all PHI coverage in the United States by year. multiple issues drive cost increases. Total cost includes claim payments to providers, claims payments from members, administrative expenses, and profit and risk charges for insurance coverage. It is true that short-term savings may be found by simply reducing administrative costs and profits. However, these costs are generally a small portion of the total costs (approximately 11.2 percent in 2009 for all private health insurance—see Table on page 22) and have actually been declining as a percentage in recent years. Reductions in insurers' administrative costs and profit alone are unlikely to have a significant impact on the total health care costs.

Underlying U.S. population trends make it difficult to reduce the overall cost of health care. For example, as the population ages, we expect to see continuing decline in health status. Some of this decline in health status is inevitable as a result of aging, while other factors may be more controllable or even reversible (e.g., obesity and related conditions). Improvements in population health status are undoubtedly a benefit, but it is unclear how meaningful the impact on cost trends will be. Even if significant changes in population health status do occur, without corresponding changes in the cost and efficiency of the health system, we may continue to see significant ongoing cost trends.

To achieve sustainable and long-term cost control, the increase in claim payments must be slowed as this is by far the largest component of health care costs and that which is increasing most rapidly. To impact this cost in the long term, fundamental changes are needed that affect the delivery of care on the provider side to reduce the inherent inflationary pressures in the current system. Therefore, this article will focus on more efficient use of our limited resource of health care providers. As noted in Part II: Improving Access to Health Care (*The Actuary* April/May 2010), the high cost of health care is a significant barrier to access. If this issue is not addressed through health reform, many of the access barriers may remain even as other elements of health reform attempt to increase access to care.

#### PARAMETERS FOR SOLUTIONS

"Cost control" and "efficiency" do not necessarily mean cost reduction. Total costs ments—one size will not fit all—but the interrelations and unintended consequences on all segments of the population must be considered and addressed.

History teaches us that controlling prices without addressing utilization is a recipe for failure. Like most economic markets, health care will find deficiencies in pricing mechanisms and they will be exploited. In other words, people (including health care providers) tend to do what you pay them to do. We

#### HISTORY TEACHES US THAT CONTROLLING PRICES WITHOUT ADDRESSING UTILIZATION IS A RECIPE FOR FAILURE.

would be reduced if we were to quickly and effectively solve the problems of waste and fraud in the system. These reductions would unfortunately be relatively short-lived, with increased demands for health care due to aging and advances in medical science that allow us to address formerly untreatable conditions quickly eclipsing those gains. We should expect and appreciate a steady increase in health costs over time, unless we are willing to embrace a future without further medical advances and deterioration of services as we age. The goal is to manage that spending so we get the most value out of it with the least sacrifice.

For our purposes, we take the position that controlling cost for one population segment at the expense of another segment is not true cost control and only masks the problem, delaying eventual complete solutions. This is true whether the segments are defined by demographics (for example: active/retired or patient age), socioeconomic status, geography, or plan sponsor. To be sure, solutions may have to be customized for different segmust be aware that if a unit of service defined by Procedure/Practice/Prescription X has a higher profit potential than Procedure/Practice/Prescription Y, then X will be utilized much more than Y. This is particularly true for health care since the providers of X and Y are primary determinants of demand. Often neither the providers nor the recipients of care have significant financial motivation, nor do they typically have the necessary information, to assess the relative benefits of the options.

#### POTENTIAL SOLUTIONS THAT PROMOTE EFFICIENCY AND CONTROL COST

Health care is more than one-sixth of the economy, so there is no single magic bullet or simple solution to control costs, since there are different issues with various segments of the health care industry. However, there are a host of powerful actions that can be brought to bear on the escalating cost of health care that have the potential to produce higher value, more efficient health care that may truly bend the trend line down without undue sacrifice. Some "solutions" however, bring with them potential adverse unintended consequences, so we must be diligent in our efforts to identify these as soon as they emerge so as to steer around them if possible.

#### PERSONAL RESPONSIBILITY

Many have suggested approaches that would increase personal responsibility for health care choices as an avenue for reducing health care cost. These approaches could include incentives or disincentives for lifestyle behaviors (e.g., smoking cessation or weight loss programs), purchasing behaviors (e.g., choice of provider or service), or some combination of both. Incentives could be part of a plan design or a separate program and could be either financial or non-financial in nature.

It is important to consider both consequences for unhealthy lifestyle choices (e.g., obesity, smoking, etc.) and choices and uses of medical resources (e.g., less costly drug, procedure, or provider). The choice or usage of medical care may have more immediate and tangible effect on the cost of care than changes in lifestyles which may take many years to realize. To some extent, changes in usage of health care services may be more easily accomplished through simple financial incentives.

Programs that promote and support health engagement improve patient health, but changing patient behavior is difficult. Therefore the expense to deliver these programs has historically been very high and the impact on total long-term health costs is mixed. These could include wellness programs which provide incentives (or remove disincentives such as copays) for health plan members to get appropriate preventive or screening tests at the appropriate intervals. Chronic disease management programs help members receive appropriate care to better manage ongoing chronic conditions. Acute management programs such as utilization review for inpatient stays ensure that appropriate care is received for shortterm acute episodes.

Education and skill-building programs help individuals become better patients and allow them to be more proactive in their choices of treatment when more than one option is available. For example, health coaching programs have become available in recent years that help individuals understand the benefits and risks of certain surgical treatments and allow them to make appropriate choices for their individual circumstances. Often overlooked is the impact of end-of-life choices, which may include similar trade-offs of risk versus reward from the patient perspective.

In addition to engagement programs, it is helpful for programs to be supported by benefit design. These need not be mutually exclu-



sive with the engagement programs described earlier, as programs with a tie-in to benefitbased incentives may be more effective than those that rely on engagement alone.

Possibilities include increasing member cost-sharing for higher cost providers or procedures, such as higher cost-sharing tiers for prescription drugs and other services that are more costly or less effective. A newer concept is value-based insurance design (VBID) which creates plan designs with lower costsharing aligned with higher quality providers or treatments that have been shown to be associated with better outcomes. Other approaches include explicit incentives earned by members for participating in disease management or wellness programs.

Many of these programs have been in place for some time with somewhat limited success at reducing costs significantly, so it is unclear how much impact we might expect on overall health care cost by adopting these programs more broadly.

Another aspect of personal responsibility is that individuals should bear the financial burden of their health care and lifestyle choices. Given the extremely high cost associated with some medical conditions, and the uncertainty as to whether these conditions will manifest for a given individual, most people (at least those who do not qualify for government programs) will need to purchase some form of health insurance to fulfill this responsibility. Some feel it is reasonable to require such coverage, with associated penalties for noncompliance, as this will relieve the burden of the cost of care for the uninsured that is currently borne by those with health coverage. However, it is unlikely that this will result in lower overall health cost trends since it is generally acknowledged that individuals with health insurance utilize more services than those without.

#### PUBLIC HEALTH INITIATIVES

An alternative, or better still, a complementary approach to personal responsibility encouragement by plan sponsors (insurers, employers and government) is a robust public health initiative. Through the influence of public media, school programs and government-sponsored community health facilities, many of the emerging adverse health trends may be reversed.

Obesity is widely believed to be responsible for much of the increase in health care costs in America, and potentially for a decline of longevity after decades of mortality improvements. Educational programs in the schools that emphasize the importance of proper diet and physical activity are essential to manage the obesity risk for future generations. These classroom activities need to be reinforced in school cafeterias with the introduction of healthy and appetizing choices and banishment of junk food, and in physical activity programs whose focus is to engage students in lifetime activities geared toward all children, not just athletes and not just during the school years.

This may be financially straining as municipal governments struggle with budgets in a down economy. However, when viewed as a part of the bigger health care picture, the cost of such changes pales in comparison of the cost of a lifetime of managing diabetes, and other co-morbidities.

For adults, similar messages need to be conveyed through community health centers, public media, and other sources of medical care. For instance, physician waiting rooms, pharmacies and other retail medical outlets could be encouraged to include patient education centers. Public media has shown that direct to consumer medical advertising can be a powerful motivator for certain health behavior, unfortunately without concern for whether or not the messages lead to cost control or medical efficiency. Redirecting, or at least counteracting, such messages is critical.

Besides lifestyle training, our public health funding should be provided for education in medical literacy, teaching people to be aware of their own health issues and how best to selfmanage them. Additionally, knowledge about when and how to effectively utilize health care providers would likely pay large dividends.

While investments in public health initiatives no doubt have a value in improving the overall health status of the general population, their effect on the overall cost of care is less clear. One of the contributors to this article noted that significant long-term investments in smoking and tobacco use reduction have been made in the last few decades and have significantly reduced the incidence of diseases associated with tobacco use. Over the same time period, we have continued to see annual increases in the cost of health care well above general inflation rates, despite these significant reductions in disease incidence. Even significant improvements in public health, if they can be achieved, may not be sufficient to bring the overall health care cost trends to an acceptable level.

#### FOCUS PROVIDERS ON PROVEN DELIVERY INNOVATIONS

Buyers of health care are paying significant dollars and have begun to measure outcomes and recognize those providers and systems that achieve above average results.

Where these measurements indicate that nontraditional approaches show promise for increased efficiency and cost savings, we must reward and promote such innovation. Plan designs, networks, payment methods and other financial incentives that help focus providers on improving health are appropriate and likely



necessary elements to encourage innovation in the cost-efficient delivery of health services.

Innovations cited by actuaries that show promise include:

- Accountable Care Organizations, generally defined as a set of providers (hospital, primary care physician group, specialists and other health professionals) associated with a specific group of patients, responsible for the group's quality and cost of care. These providers share responsibility for the care provided to those patients and are accountable for the quality and cost of such care.
- Patient Centered Medical Homes, which focus more on individual patient medical needs, developing a team of providers led by a personal physician who coordinates care across life stages and disease states.

- Pay-for-performance schemes, sometimes expanded into value-based purchasing, and may also include bundled payments, which set out specific quality and efficiency goals for health care providers, then reward those who achieve the targets.
- Primary care payment reform that rewards primary care providers who encourage greater reliance on prevention, diagnosis, and patient education.

A consideration for any nontraditional payment approach is that the administration may be considerably more intensive and therefore more costly. At a time when much scrutiny and restraints are being applied to administrative costs, plan administrators may be reluctant to implement these systems, which can stifle innoHowever laudable such a goal might be, we must be realistic about the limits of medical science and realize that although it is likely that improvements can be made through appropriate incentives, trial and error will still be a part of health care delivery. In addition, balancing the priorities of limiting procedures while providing the best possible outcomes are complicated and personal. In the current system, treatments are paid as long as one physician recommends them. This reinforces the patient's instinct to discount risk where perceived rewards are potentially great, so patients will generally opt to try everything unless there is meaningful and trusted push back. This is a complex issue with substantial implications about professional guidance, communication, and potential medical and financial risks. However, it is a disservice to patients, their families and society to do oth-

#### ONE QUICK WAY TO REDUCE HEALTH CARE EXPENSE WOULD BE TO REDUCE UNNECES-SARY AND POSSIBLY HARMFUL TESTS.

vation. However, since many of these concepts are being considered by Medicare, there are many existing pilot projects and the implementation of these programs may be much easier and cheaper in future years. Historically, Medicare has been the source of many provider payment reforms (e.g., Diagnosis-Related Groups and Resource-Based Relative Value Scale) that are later adopted by the private market.

#### **REDUCE UNNECESSARY SERVICES**

One quick way to reduce health care expense would be to reduce unnecessary and possibly harmful tests, procedures and prescriptions. This would have the added benefit of saving lives and improving the health of those patients who are put at risk of adverse outcomes and side effects of such inappropriate "care." erwise. This is not just an end-of-life care issue but also applies every time someone wants a new drug because he or she saw it advertised on television or finds a miracle cure on the Internet. This issue may be addressed both by additional training for providers in having cost/benefit and risk/reward discussions with their patients as well as providing additional resources for patients themselves. Well-informed patients and providers may better understand the risks and potential benefits of various treatments and reduce the instinct to try everything.

Health coaching programs where patients are guided to better understand treatment options for preference sensitive care (i.e., where the most appropriate treatment is highly dependent on the preferences of the patient) have shown promising results in reducing the rates of the most intensive, costly, and in many cases more risky treatments for these conditions.

Three examples for resolving this problem were advanced by the actuaries who contributed ideas for this article: malpractice reform, improved diagnostic skills, and reducing financial incentives for providers to overuse certain services.

Medical malpractice reform would lessen providers' concern that they will be held liable for withholding or discouraging services that are unlikely to provide value to the patient. It is often felt that since there is little out-of-pocket cost to most patients under our current system, there is no harm in providing services with low expected value. However, these costs are eventually paid by someone and therefore contribute to the overall health care costs. Viewed from the perspective of risk avoidance and the limited capacity of the health system, this should be considered to be false reasoning.

Improved physician diagnostic skills are likely to yield quicker determination of the appropriate tests and treatment regimen and less reliance on trial and error medicine. Greater use of evidence-based protocols may also have the same result. This should lead to fewer but more productive specialist visits and procedures.

It has been observed that physician and hospital ownership of ancillary medical services, and other profit sharing arrangements can be tied to increased utilization of those services. Whether this utilization is indeed profit motivated or because the providers are simply more cognizant of the availability of the services, it has not been shown to result in more favorable outcomes for patients. Disclosure and regulation of these arrangements should be undertaken to assure that our medical dollars are used wisely. The recently enacted PPACA will require disclosure of financial relationships between health entities.

#### **PROVIDER PAYMENT REFORMS**

Provider payment reform may be one of the most important efforts in reducing long-term health care cost growth. Historically, the private sector has adopted many of the public sector payment approaches to enhance administrative efficiency for both providers and health plans. Most of these payment mechanisms are fee-forservice (FFS), where providers are paid for each procedure they perform with limited ability for plans to ascertain whether the procedure was necessary or appropriate. These payment approaches inherently create systemic incentives to provide more and more services. Fundamental changes in this payment mechanism may be necessary to reduce the long-term cost for the health care system as a whole.

Price Transparency-In addition to the issue of a general FFS payment system encouraging higher utilization, another problem with existing payment systems is that the actual rates paid for a given procedure are mostly unknown to the patient receiving the treatment. In fact, many times the cost of recommended services is not known even to the provider who is recommending the care. Greater transparency to patients of the actual cost paid by insurance for a given treatment or procedure may make patients less likely to overuse services even if recommended by the physician. This information on provider reimbursement should also be coupled with increased patient out-of-pocket cost, in order to more effectively change behavior.

Quality Information-Increased quality information could change the patient's choice of provider or treatment if a given provider is identified as being higher quality than other choices. In order to be of value, quality information, like price information, needs to be readily available and easy to understand at a time when health care treatment decisions are being made. While many plans have increased the availability of price and quality information in recent years, it is not yet readily available or organized consistently for most patients. Providing quality information to patients and providers in an effective manner will help reduce unnecessary care and likely reduce expenses, thus lowering the trend curve.

Provider payment arrangements take two general forms today. Public fee schedules (e.g., Medicare and Medicaid) are generally established by formulas that may or may not reflect the actual cost of delivering care. Private sector fee schedules are determined by negotiation between plans and providers and are generally significantly higher than their public equivalents.

Alternative Fee Schedules—Alternative approaches to fee schedules have been suggested including establishing an all payer fee schedule, possibly based on some relationship to public fee schedules. Another approach would establish a more market-driven fee level that would require providers to establish a fee schedule for all payers, public or private. This approach could generate more direct provider competition than rates based on negotiation or formula due to enhanced transparency and the elimination of cost shifting. This approach could also resolve the inflexibility of medical prices which leads to medical practice being driven by fee schedules rather than fees being driven by best medical practice. Another element that could be included in a market-based approach

is more frequent fee changes and updates to reflect the supply and demand for health care services. In the current environment, fee schedules are often set far in the future with little or no flexibility to adjust for the variability of supply and demand for services.

Bundled Payments—Another approach to paying providers would be a bundled approach where a single payment covers all services provided for a given condition, regardless of what services are actually utilized, as opposed to FFS with a separate fee for each service. This approach is more consistent with how patients access care (i.e., patients present at a provider with a given condition or complaint) and could enhance the impact of other transparency initiatives. A bundled payment approach may also encourage provider creativity around more efficient ways to treat common conditions in the most cost-effective ways. Bundling payments could fundamentally change provider incentives from providing services to most efficiently treating a given condition.



Alternative Staff Utilization—Other potential solutions include recognizing and paying health care providers other than just physicians. In other words, staff that support the physician, or separate professionals other than those with an MD degree, can be utilized and paid appropriately for the level of service they provide. Clearly defining which level of provider can deliver a particular service whereby tasks are delegated when appropriate, can help control cost increases. This approach could be less necessary in a bundled payment scenario as long as appropriate levels of care were being utilized to treat a condition.

Weeding out fraud and abuse is necessary in any payment approach; however, FFS payment in the current system may make fraud and abuse somewhat more common than if alternate mechanisms were adopted. All payment approaches would also need to consider the impact of uncompensated or charity care. Currently uncompensated care



is implicitly included as an additional cost shift to private sector payment and to some degree to public sector as well.

#### REDUCE MEDICAL ERRORS AND ADVERSE OUTCOMES

One important element of increased efficiency and reduced cost is the reduction or elimination of medical errors and adverse outcomes. One issue that may lead to high rates of medical errors and adverse outcomes is a lack of data-driven clinical guidelines for most conditions. Although criteria for evidence-based medicine (EBM) have expanded in recent years, many of these guidelines are still limited to preventive measures or the use of prescription drugs when indicated as a best practice. The ongoing findings of the Dartmouth Atlas Project suggest that there is significant variation in medical practice from one geographic area of the United States to another, and that most of the variation cannot be explained by differences in health status or outcomes. This suggests that in many areas, more care is delivered for the same conditions with no corresponding increase in health status or better outcomes. More development of and adherence to data-driven clinical guidelines could increase the quality of care as well as potentially reduce costs in those areas that utilize more than others.

Another source of medical errors and adverse outcomes is hospital readmission rates due to post-operative infections and other causes. Some pilot programs have shown good initial success in reducing readmission rates by creating stronger incentives for facilities and by establishing protocols to reduce the likelihood of errors and complications. Because the stakes are so high with medical errors (pain, suffering and even death), more should be done to ensure that avoidable errors are reduced as much as possible.

#### HEALTH INFORMATION TECHNOLOGY

Health information technology is a tool that could be used to reduce cost and increase efficiency in health care. While tools like electronic medical records (EMR) only produce significant savings with excellent implementation and coordination and require a sizeable upfront investment, the availability of these records may facilitate reduced costs and improved quality in other areas. The recent major funding for physician Health Information Technology creates potential for major improvements in coming years. There is a range of technologies available, from disease registries to EMR.

Because the use of EMR requires a sizeable upfront technology investment and a professional investment by users in establishing different processes and workflows, the adoption rate has been relatively slow and many providers have been reluctant to make the investment. Many that have converted have found significant value and would not switch back to the previous paper record format. From a cost perspective, EMR enables the immediate retrieval of lab and radiology test values by any provider in the practice. Benefits of EMR will be multiplied as more provider groups are connected and information on members is exchanged. This should reduce the need for duplicate tests required because the values are not readily accessible. In addition, from a quality perspective, having EMR available for a larger number of patients may allow for more robust clinical studies of data that is often unavailable or costly to obtain from chart reviews (i.e., lab test values and other periodic health status measures).

Personal health records (PHR) have also been under development in recent years. These differ from EMR in that they are generally online medical records maintained and compiled for use by individuals rather than providers. In some cases, these PHR applications are able to access health plan claim records in order to download relevant information. Adoption of PHR would need to be widespread and be able to electronically connect with other medical information to have significant impact on cost and quality.

Some providers have established disease registries. These provide core claims or clinical data such as lab results for people with one or more chronic illnesses. This focus provides easier implementation and lower cost since the data can be collected in a centralized location with less investment by each physician.

In today's health care system, we do not link productivity and payment directly. Because we do not pay for efficiency (i.e., greater productivity or services per unit of time), technology adoption does not drive productivity in health care. In most other industries, there is a competitive advantage to efficiency so productivity enhancing technology is readily adopted voluntarily.

#### FOCUS ON ESSENTIALS

To summarize, improved efficiency and cost control, while a complex subject, can still be addressed by focusing on a few basic principles. We should strive to structure reform in such a way that we prevent disease from happening; put systems and protections in place that have proven to be successful in improving the health of the participants; and strive for payment methodologies that reward healthy outcomes. Government mandates should be filtered against these essential needs and restrained to not exceed them lest we suffer the consequences of preventing market innovations that could lead to significant medical advances.

Anything that goes beyond these essentials should be deemed medical luxuries and individually financed, either on a pay as you go basis or through prepayment or insurance methods. One needs only to look to refractive surgery for eye care to see how the free market has the potential to realize significant advances in medicine, even while cost of care is reduced. Consumers should have the flexibility to choose from various benefit packages and insurance types to control their own health care and determine what is essential to them. and cost. Perhaps the most viable elements of a total solution are those pieces that were mentioned as solutions in both contexts.

Our next, and last, installment in this series will focus on funding and financing—what considerations we need to take into account in setting up an adequate and sustainable approach to paying for the health care ser-

#### SOME PROVIDERS HAVE ESTABLISHED DISEASE REGISTRIES.

#### CONCLUSIONS/RECOMMENDATIONS

Done right, focusing on cost and efficiency can yield significant improvements in the delivery and quality of medical care received by patients, but it needs to be done carefully. There have been many successful initiatives implemented at state level, pilots in federal programs as well as a multitude of private sector efforts that we can benefit from as we design future reforms. It is important that we consider what has been tried before and accept what appears to be successful and learn from the failures.

We will repeat a suggestion from the "Access to Care" article, part two of this series. A comprehensive study needs to be undertaken that looks at what has worked, what hasn't, and most importantly, why. However, this does not imply that we should not move forward with concepts that have already been demonstrated to be effective, or to continue experimenting with pilot programs and other innovations that may prove effective.

Access and cost/efficiency are related with greater efficiency and lower cost allowing us to provide greater access to health care services to underserved Americans. You may note that there are significant crossovers between our separate discussions on access vices we all need. Any thoughts you care to share with us as we consider this daunting task will be greatly appreciated.

Once again, we relied on literally dozens of actuaries, mostly through their participation on the Healthcare Reform Taskforce of the Conference of Consulting Actuaries (CCA). We extend our thanks to them, for without their generous and open input this article would not be possible. Additionally, we especially want to acknowledge Michelle Raleigh, ASA, MAAA, FCA (schramm.raleigh Health Strategy), and Greger Vigen, FSA, for their assistance in framing the article and guiding the discussions on cost and efficiency plus invaluable reviews of our initial drafts.

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