

**The Search for Affordable Health Care in Rural Minnesota:
Prospects and Problems for Market-Based Solutions**

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Foreword

Rural Minnesota is in a health care crisis, and there does not appear to be consensus as to either the source of the problem or to the solutions that offer the greatest prospects for its resolution. The objectives of this report are to briefly summarize the statistical findings that describe the recent rise in health care costs, describe the historical origins of insurance, offer a simple health economics model that offers an explanation as to why the current system does not produce efficient outcomes, and discuss the prospects for market reforms that might correct some of these shortcomings in the current health care economics system.

This report has been prepared for the West Central Minnesota Health Purchasing Alliance (WCHMPA) Board of Directors with support from the West Central Regional Sustainable Development Partnership and the Center for Small Towns. It is written in a style and with methodologies appropriate for its consideration by the WCHMPA Board. The views expressed herein are those of the authors and not necessarily those of the supporting agencies.

The Search for Affordable Health Care in Rural Minnesota: Prospects and Problems for Market-Based Solutions

Introduction: A Health Care System in Crisis

The health care system in the United States is in a state of crisis. Undoubtedly one of the most significant problems is with access to health care. More and more Americans are finding themselves and their families uninsured. In 2003, the number of Americans without health insurance coverage rose by 1.4 million to 45.0 million. The percentage of the nation's population without coverage grew from 15.2 percent in 2002 to 15.6 percent in 2003 (Census Bureau 2003).

An examination of the uninsured alone probably also significantly underestimates the extent of the problem with access to health care. The underinsured, defined as those who have inadequate health care insurance to cover catastrophic costs, is probably much higher. Yet scholars have largely failed to define what is "adequate" and so it is currently difficult to measure the additional proportion of the population that is underinsured.

Those who nevertheless are insured are seeing dramatic increases in their health insurance premiums. In 2003, premiums rose by 13.9% while overall inflation and workers earning grew at only at 3% rate (Kaiser Family Foundation and Health Research and Education Trust).

Meanwhile, total health care spending is increasing at an unsustainable pace.

Table 1 shows that per capita spending on health care (in constant 2002 dollars) will have increased from \$1313 dollars in 1970 to \$9216 in 2010. Over this same period, overall health care spending in the United States will have increased from 7.0% of the Gross Domestic Product (GDP) to 16.8% of GDP in 2010.

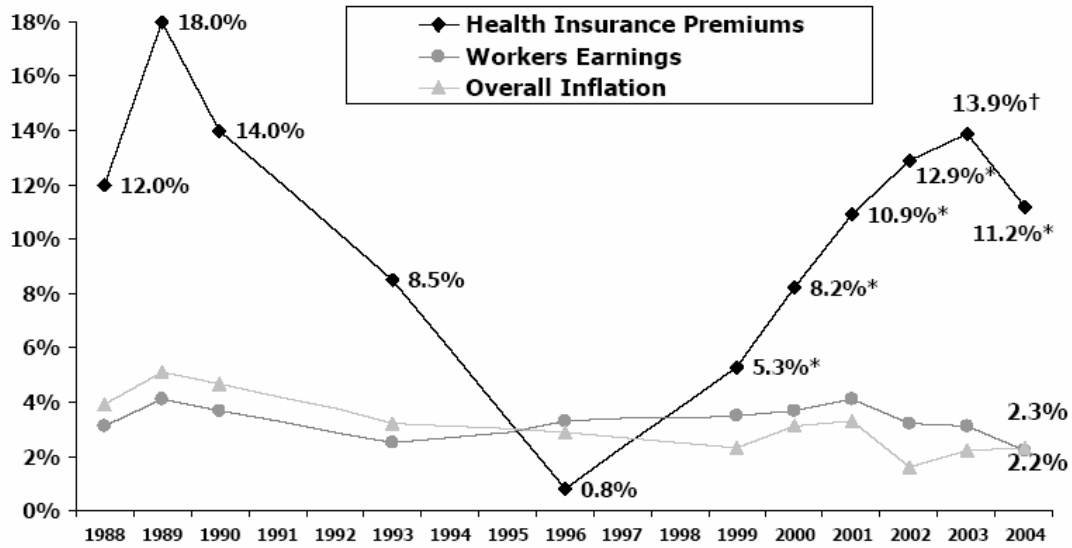
Table 1. Health Care Expenditures in the United States, 1970-2010

	1970	2002	2010 (Projected)
Total Health Care Spending per Capita (2002 Dollars)	\$1313	\$5449	\$9216
Total Health Care Spending as a % of GDP	7.0%	14.9%	16.8%

Sources: Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group as delivered by Douglas Holtz-Eakin Director of the Congressional Budget Office as he testified before the Senate Committee on Health, Education, Labor, and Pensions on January 28, 2004. "Health spending projections for 2001-2011: the latest outlook" in Health Affairs, March/April 2002; 21(2): 207-218; by Stephen Heffler, Sheila Smith, Greg Won, M Kent Clemens, Sean Keehan, and Mark Zezza

Health insurance premiums have also skyrocketed. Premiums rose last year by 11.2% while overall inflation and workers earning grew at approximately a 2% rate. In fact, Figure 1 shows that insurance premiums over the past 15 years have far exceeded the rate of either inflation or workers' earnings.

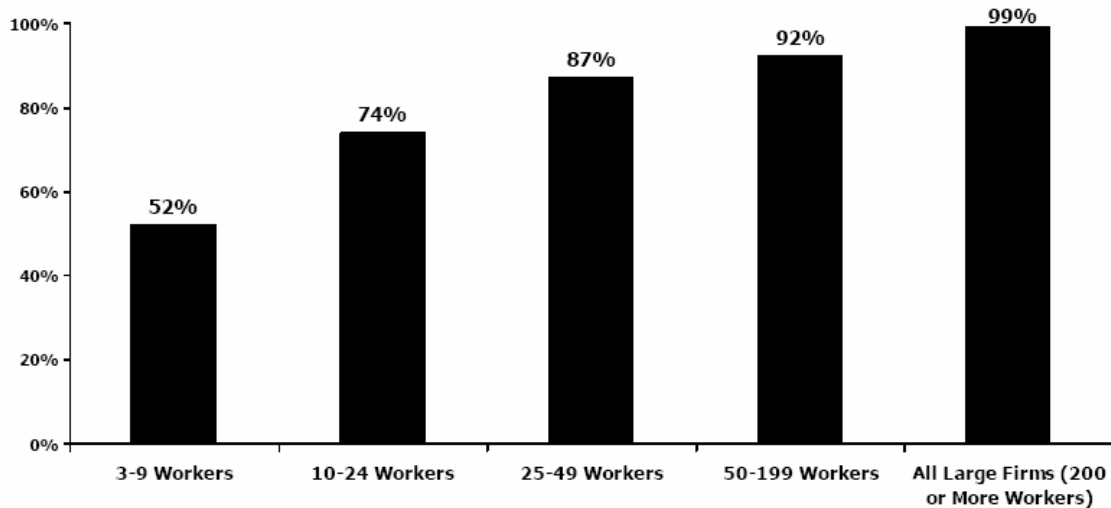
Figure 1. Insurance Premium Increases, Workers' Earnings, and Overall Inflation, 1988-2004.



Source: Employer Health Benefits 2004 Annual Survey. Kaiser Family Foundation and Health Research and Educational Trust.

In 2004, the average annual health insurance premium for a family was \$9950. For single subscribers, the rate was \$3695. Not surprisingly, small businesses had a much more difficult time providing their employees with health insurance coverage. Figure 2 shows that 52% of small businesses offered health insurance coverage to their employees, compared to 99% of firms with more than 200 workers.

Figure 2. Percentage of Firms Offering Health Insurance Benefits to their Employees, by Firm Size, 2004



Source: Employer Health Benefits 2004 Annual Survey. Kaiser Family Foundation and Health Research and Educational Trust.

This trend presents a very difficult challenge for our region. In our 12 county area of West Central Minnesota, over 75% of our businesses have less than 10 employees.

Specific information about the hardships encountered by both purchasers and providers of health insurance was obtained through a survey administered in our 12 county area in 2003. Some of those results include:

- 1) Steep health care insurance premiums are threatening the ability of area employers to continue to offer health care insurance to their employees. An alarming 55.3% of employers indicated that they are either very or somewhat likely to drop health care coverage for their employees if premiums continue to rise at their present rate. In fact, more than one in ten employers (11.1%) has already discontinued offering health insurance to their employees in the past five years.
- 2) A large majority of area employers are either very or somewhat dissatisfied with both the number of health care insurance options available to them (72%) and the costs of these plans (88%). When asked if they were offered a plan by the West Central Health Care Purchasing Alliance that was competitively priced, had caps on premium increases, and required a 3-year commitment, more than 8 in 10 employers (81.4%) indicated that they would seriously consider purchasing it. 82.5% of employers asked to be contacted about future developments with the West Central Health Care Purchasing Alliance.

- 3) Area health care providers are also under extreme stress. While the median expense inflation increased by an average of more than 5% for area providers this past year, 75% of area health care providers reported flat or *lower* reimbursement rates from insurers. As a result, nearly half of area providers (48.4%) reported that they are less financially stable due to recent trends in reimbursement, while 63.3% of area health care providers indicated that the reimbursement trends are threatening their viability as a health care provider in the community.

Source: Thorson, Gregory R. and Tara Schmidt. November 2003. "A Health Care System in Critical Condition: Evidence of the Declining Affordability of Health Insurance and the Erosion of Health Care Infrastructure in West Central Minnesota." Published by the Center for Small Towns and the West Central Regional Sustainable Partnership.

Another problem that has been identified in our research is that many of the communities in rural Minnesota have disproportionately elderly populations that are served primarily through Medicare. Because Medicare's reimbursement rates are substantially lower than those of traditional insurers (indeed, some health care providers claim that they fail to even meet the costs of providing those services), rural health care providers many times experience significant hardship due to these reimbursement trends. As a result, there may be significant pressure on rural health care providers to "make up" for these poor reimbursement rates by shifting the costs to the smaller group of non-elderly populations in rural areas, thus driving prices higher in those areas for non-elderly patients. In contrast, providers that serve the younger and healthier populations in non-rural Minnesota have a larger proportion of non-elderly patients on to which they can shift those costs.

Clearly, there are many disturbing trends both in the costs of health care as well as access to the system. But what are the solutions? This research has been conducted for Board members of the West Central Health Care Purchasing Alliance (WCHMPA) to

assist them as they prepare to address the needs of the 12 county region in West Central Minnesota.

The paper has the following objectives: 1) to provide a brief, descriptive understanding of the size and scope of the health care crisis in the United States, 2) to understand the history of insurance and how modern health care products largely stray from this original intent, 3) to demonstrate why rural areas tend to be disproportionately affected by the health care crisis, 4) to describe and critique what small employers in other states and other areas within Minnesota have done to try and combat these trends, 5) to discuss how the problems that exist in today's health insurance system can be understood through a health economics perspective, and 6) to offer suggestions as to how the WCHMPA can work to correct some of this "market failure" in a way that benefits the people of our region.

The Earliest Forms of Insurance: Origins and Scope

The earliest forms of insurance extend back to at least 2100 BC. In this section of the paper, we will briefly describe some of the most important developments in insurance, including the Code of Hammurabi, the establishment of Roman burial clubs, and more recently the development of marine, fire, and employer sponsored health insurance. Through these examples we will emphasize a common thread found throughout this history: insurance is predicated upon the notion that if enough people can pool their money to form a large enough fund, then together they can handle almost any financial disaster. People are able to spread their risk through this larger pool. Their

motivation for doing so is the security that they obtain by knowing that they will be protected if the disaster strikes them.

Many scholars point to the ancient Code of Hammurabi as the earliest example of insurance. The Code of Hammurabi is ancient Babylonian in its origin and dates back to at least 2100 B.C. The Code established the state government as one of the earliest insurers. Specifically, the Code states, if a person has had something stolen, and the criminal has not been caught, then “the city and governor... shall render back to him whatever of his was lost.” According to this Code, the government protected the people from theft and agreed to replace the lost or stolen items.

Several centuries later, the Romans developed a form of insurance that provided security for the protection of eternal life. Romans were horrified of death because they believed, “that a man illy buried would turn out an unhappy ghost ... a forlorn and shivering spirit in an agony of loneliness.” The result was that, every man, rich and poor, strained his resources to provide an adequate grave in order to insure eternal life. Since the poor were lacking resources, they pooled their resources together so when a member of their “burial club” died, his grave would be adequately furnished. Thus, the Romans stumbled upon the earliest form of life insurance.

As early as the 14th century, a more modern form of insurance existed in the form of marine insurance. Mariners provided for the security of their ships during a voyage by borrowing money from a lender and in return pledging the ship as collateral for repayment of the loan upon the ship’s safe return. If the ship was lost or wrecked during the voyage, the lender lost his money and the borrower lost his ship. If the ship returned safely, the lender received back his principle and also the interest agreed upon (called

marine interest). In contrast to a loan where the borrower is always at risk of repayment, marine insurance was different because the money was at the risk of the lender. At the hub of these activities was a 17th century coffee shop in London known as Lloyd's of London. Lloyd's was a place where ship owners, merchants and underwriters met to conduct business and it has since progressed into a well-known, modern insurance provider.

A series of damaging fires in the 17th and 18th centuries set the context for the development of fire insurance in America. In Philadelphia, Benjamin Franklin founded the first of many volunteer fire-fighting companies, the Union Fire Company. The theory of these volunteer companies was to share resources in order to provide the townspeople collective security and protection from fires. By 1796, the Insurance Company of North America was making fire insurance available on properties anywhere in the United States, departing from their previous practice of only offering insurance to properties within the range of the volunteer fire-fighting companies. After each of the fire related disasters, there were huge increases in the purchase of fire insurance.

Major changes in both the usage and purchase of insurance occurred during World War II. During WWII, employer-sponsored health insurance became more politically favorable and the Federal Government played an integral part in the process. At that time, the political climate of the period had shifted considerably from the very high reliance on government programs that characterized the New Deal era. Many in the national government wanted to adhere to ideals of a more limited national government, but at the same time they were balancing those ideals with an increased awareness of the necessity of health insurance.

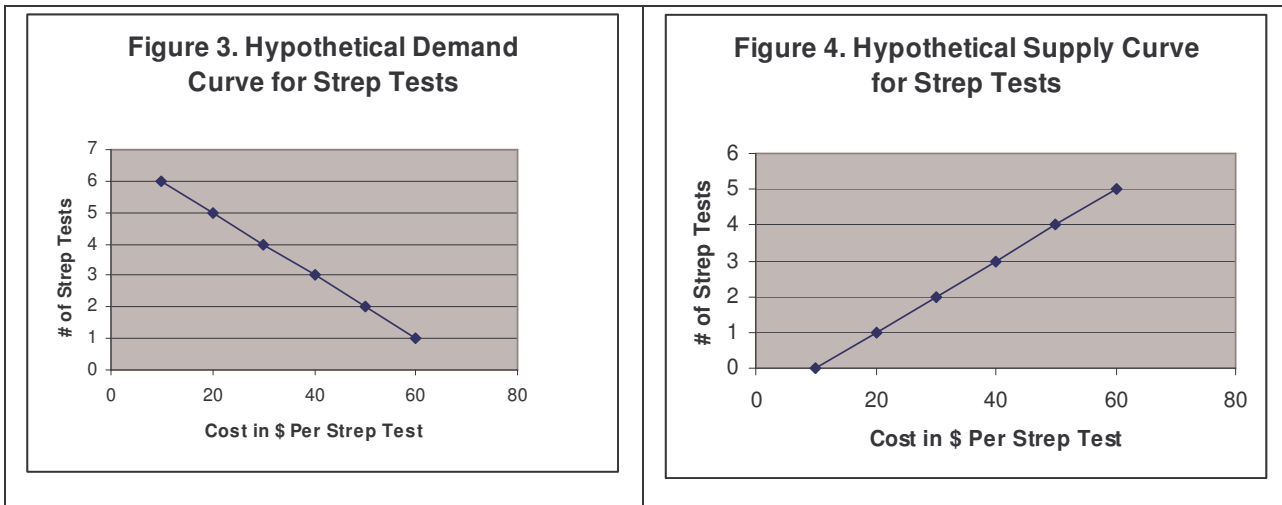
During World War II, the government imposed mandatory wage freezes for workers. As a result, employers had a difficult time attracting employees because by law they were not able to use wage raises as an incentive to work. Therefore in 1943, the War Labor Board ruled that the general wage freeze, enacted on account of the war, did not apply to fringe benefits. By exempting fringe benefits from the wage freeze, the government was encouraging employer-sponsored health insurance and at the same time dampening the effects of the labor shortage by giving employers the option of offering a health care benefit to attract scarce workers. The health insurance option was attractive to employees because Unions supported employer-based health insurance and as cash wages were subject to social security taxes and income taxes, workers health benefits were not. After the War Labor Board's ruling in 1943, the idea of fringe benefits enticed people to go out and work, thus helping with the labor shortage, and also solving the dilemma of being able to offer health insurance to the masses that were becoming readily aware of its necessity.

This brief history of insurance is illustrative of a few concepts. The original intent of insurance was to protect against catastrophic events. When the government issued a general wage freeze during World War II, the role and funding of health insurance departed significantly from this intent. Employers used health insurance as a way to bypass this overall wage freeze. To complicate this trend even more, recent health care products began to insure routine, day-to-day health care expenditures. These new practices created new problems for the health economics markets.

Understanding the Current Health Care Crisis: A Health Economics Approach

Pinpointing the source of the current health care crisis is very difficult. Indeed, there are many ways to approach the problem. Some perceive the problem as being that of a lack of universal coverage. Others focus on the problem of poor public health. It is likely that any single approach will undoubtedly have its drawbacks. For the purposes of this paper, however, we adopt a health economics approach. This approach essentially argues that the health care crisis exists due to what economists describe as market failure. What is market failure? According to economists, market failure is present when a given market fails to produce efficiency.

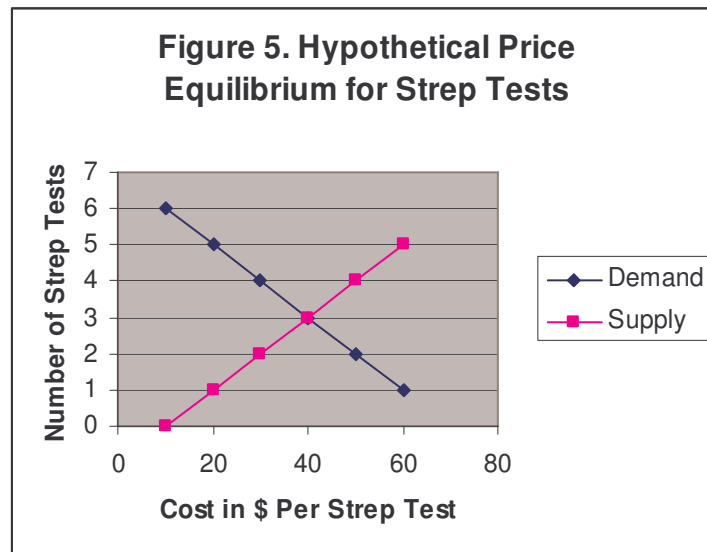
By definition, prices in an efficient market become stable (i.e. at an equilibrium point) at the precise intersection of a good's supply and demand curves. An easy example of this process is presented in Figures 3-5. Figure 3 presents a hypothetical demand curve for a family that will purchase some number of strep tests (i.e. test for Group A streptococci) in a given year. Let's assume for the purposes of illustration that the family will have a total of six sore throat events in a given year. Each may have a different degree of severity and/or affect different family members. We can graph the number of strep tests that this hypothetical family will purchase. We will model this behavior by assuming that the number of strep tests purchased by the family will be a function of the cost of the strep test. Figure 3 presents this data for the hypothetical family.



In this example, if the cost for each strep test is only \$10 per test, the hypothetical family is willing to purchase strep tests for all six incidents of sore throat. However, if the cost increases to \$20, the family is now willing to only purchase 5 strep tests. If the price increases to \$60, the individual is willing to purchase just one strep test. This is a typical example of a demand curve. Although the relationship may not be linear (indeed, most demand curves tend to be curvilinear), and the slope of the line might vary considerably (indicating the elasticity of the relationship between cost and demand), most demand curves follow this basic trend.

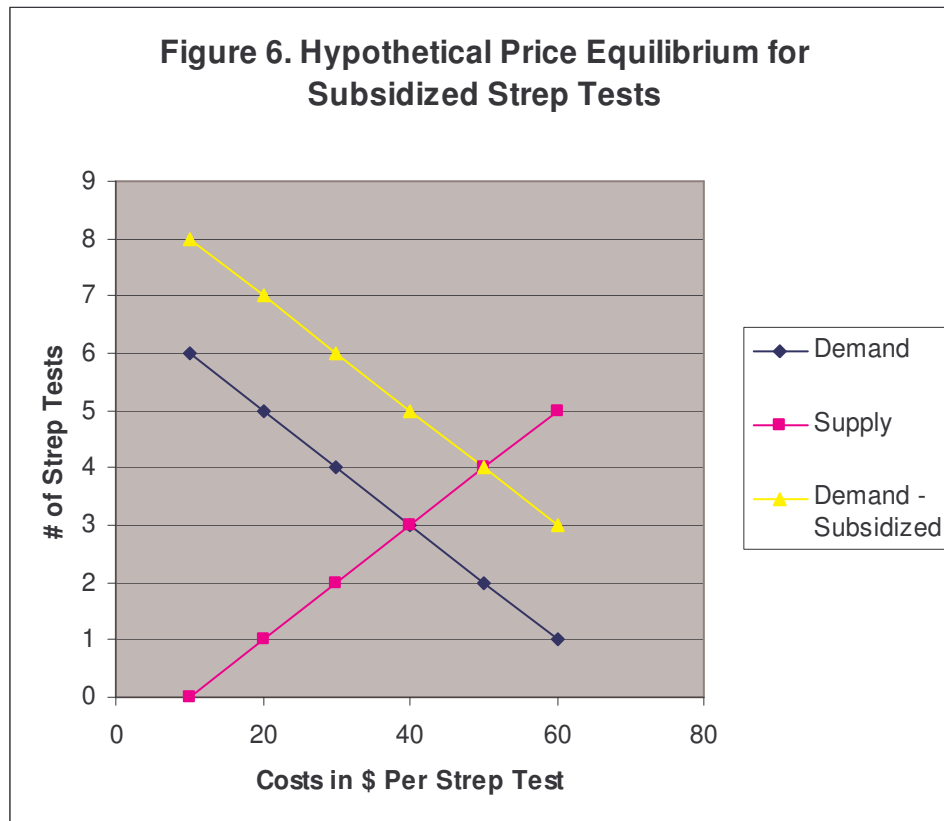
Correspondingly, Figure 4 is a hypothetical supply curve for a supplier of strep tests. Because we assume that suppliers will seek the best rate of return on their capital, it follows that they are willing to produce more goods when the sale of those goods produce higher amounts of revenue (and more technically higher profits) per item. In this example, the strep test supplier is unwilling to supply any strep tests at \$10 per test. At \$20 per test, the supplier will only supply one test. The supplier is willing to supply five strep tests if they can in turn sell them for \$60 per test.

By definition, the resulting price in a healthy market will be the point at which the supply curve and the demand curve intersect. This price will typically be very stable. Figure 5 shows that in this example, the resulting price would be \$40, and the buyer would purchase 3 strep tests per year at this price. The resulting price in a healthy market thus typically produces a stable market equilibrium where the price is a function of the supply and demand curves for a given product or service.



But what happens if other factors interfere with either the purchaser's demand or the supplier's willingness to provide a good or service? Economists typically refer to these effects as externalities. Externalities occur whenever the purchaser either does not bear all of the costs of a purchase or does not reap all of the gains from a purchase. The result can have dramatic effects on the market for that good. For example, consider a scenario where the purchaser of strep tests receives subsidies from his/her employer as well as additional savings of having purchases of health care allowed to be made pretax from the government. The net effect from both of these programs is to reduce the cost to the purchaser by \$20 per strep test. Figure 6 displays the effect that this change has on

the demand curve as well as the new resulting equilibrium. Note that neither the underlying preferences of the purchaser or the supplier change in this scenario. Whereas earlier the purchaser was willing to purchase a single strep test for \$60, the purchaser with the combined subsidies is now willing to pay \$80 for a single strep test. If the price drops to \$70, the purchaser will buy 2 strep tests, etc. The most important part of this scenario is to understand the net effect that these subsidies have on the new equilibrium. While the efficient market described in Figure 5 produced a market equilibrium featuring the sale of 3 strep tests at \$40 a piece, the addition of the two subsidies increased the equilibrium to the sale of 4 strep tests at \$50 a piece. By definition, the market no longer operates efficiently. With the introduction of the subsidies, the purchaser now over-consumes the product.



Our final example introduces a scenario where the consumer can purchase strep tests with a \$20 copay per test. The results of this purchasing program are demonstrated graphically in Figure 7. In Figure 3, we determined that the family is willing to purchase 5 strep tests at \$20 per test. Since the copay is fixed at \$20 per test, the consumer will be willing to purchase five regardless of the price being charged by the supplier. The net effect to the market is the introduction of the copay system increased the consumption to 5 strep tests at \$60 per test.

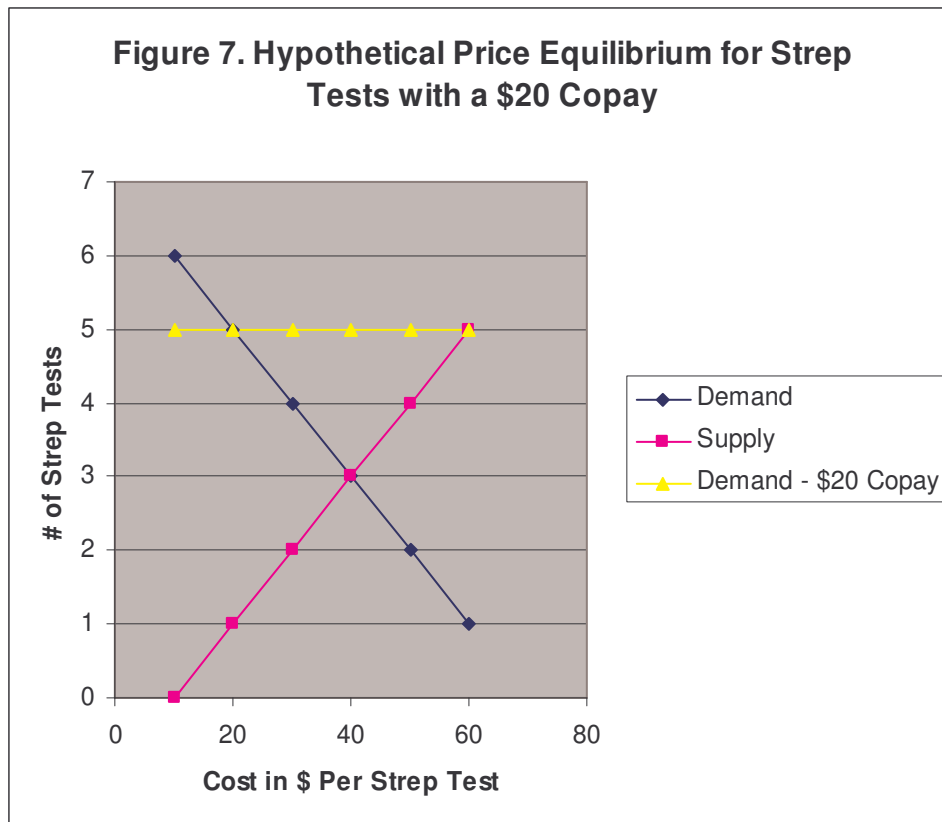


Table 2 summarizes the results of these hypothetical findings. In the market with no externalities (i.e. the consumer paid the full cost of the strep tests), there were 3 strep tests purchased at \$40 per test. The total expenditure on strep tests was \$120. In the subsidized market, the consumer now purchased 4 tests at \$50 per test for a total

expenditure of \$200. Finally, in the market that featured a \$20 copay per test, the consumer purchased 5 tests for \$60 each, for a total expenditure of \$300.

Table 2. Consumption of Strep Tests – Summary of Hypothetical Data

Condition	# of Strep Tests Purchased	Cost Per Test	Total Expenditures
Efficient Market	3	\$40	\$120
Subsidized Market	4	\$50	\$200
Market with Copay	5	\$60	\$300

These examples demonstrate, at least hypothetically, that market externalities can have a dramatic impact on the efficiency of markets. Specifically, it is very likely that employer subsidies, government pretax programs, and insurance copay arrangement all have the net effect of both increasing consumption and raising prices. How much prices and consumption increase will be determined by the elasticity of the supply and demand curves (i.e. how much both consumer demand and supplier willingness to increase production is affected by higher prices).

We should note that this market view of understanding social problems is not only prevalent in the health care literature, but for other social problems as well, most notably in environmental pollution. Market economists largely see the problem of environmental pollution as being due to the fact that producers of pollution do not pay the full cost of their behavior (i.e. the producers nor the consumers pay the cost of the environmental damage that they inflict). The result has been some very innovative solutions aimed at reducing environmental pollution by issuing transferable discharge permits. Transferable discharge permits were allotted to businesses that could be bought and sold on an open market. Each permit allowed a business to pollute a fixed amount. The net effect of the program was to encourage those businesses that could significantly reduce their pollution

in a cost-effective way to do so and then sell their transferable discharge permits to those businesses whose pollution reduction measures were much more expensive. In theory, the program should allow for reduction in air pollution in a much more efficient manner than through other alternatives, such as direct government regulation of stacks.

Another example is a proposal currently under consideration in San Francisco. There is a great deal of research that shows that grocery bags, both paper and plastic, are not being used in an efficient manner. Because the cost of the bags is so inexpensive, grocers prefer to simply give new bags each time a consumer purchases goods. The cost for disposal, however, may not be being paid for by the consumer. As a result, the net effect is that there are very significant numbers of these bags accumulating in landfills. To combat the problem, the City of San Francisco is considering a 17 cent tax on paper and plastic garbage bags. The goal is to create consumer incentive to recycle by making the consumer pay the true cost of the disposal of large number of underused grocery bags.

These examples present many similarities to fundamental flaws in the way that health care is purchased in the United States. Consumers are not paying the full costs of their health care. Both employers (through their large subsidies of insurance) as well as government (through pretax contribution allowances) may be contributing to the over-consumption and the high price of health care. Insurance companies may also deserve a share of the blame. By creating insurance products that allow purchasers to purchase most available services for a low fixed amount (i.e. copays), they may also be contributing to both over-consumption and high prices.

According to Weiss ratings, the insurance industry is doing extremely well financially. For example, the 2002 net profits of Blue Cross increased 38% to \$314

million. Where do these profits come from? According to Kaiser Family Foundation's California Health Benefits Survey, health insurers spend as much as 25% of every dollar spent on health care on overhead, including salaries, advertising, and, of course, profit. In fact the Kaiser report finds that insurance premiums in 2002 increased 250% more than actual medical costs. It is unclear whether the insurance industry would benefit from a more efficient market. Some scholars speculate that the insurance companies benefit from significant over-consumption by the consumer. According to these scholars, because insurance companies have overhead, including profit, that accounts for roughly 25% of all health care expenditures, health insurance companies want overall health care expenditures to be high as possible. They therefore develop products that promote over-consumption rather than promote market efficiency. Some of these scholars also point to the fact that several states (Minnesota included) limit the percentage of revenues that can be spent on administration. As a result, they argue, there is a strong disincentive for insurers to reduce overall health care spending, as that must also result in lowered administrative costs. In contrast, other scholars argue that excess spending on unnecessary health care dramatically reduces the profits of health care insurers, and that health care insurers do all that they can to reduce frivolous health care spending.

There may be another victim of over-consumption that correspondingly increases prices as well, that being those that do not have employer-sponsored health care insurance. For these individuals, the price of all medical services may be even less affordable due to the excesses of those with health care insurance.

Finally, another consequence of this market failure is the lack of accountability that Americans have for their own poor health choices. Discretionary lifestyle choices

that are significantly related to poor public health, most notoriously cigarette smoking, obesity, and unsafe sexual behavior, are on the rise, and consumers pay little if any of the costs of this behavior. Other examples would certainly include the low use of seat belts for automobile drivers, low use of helmets by motorcycle drivers, and high rates of drinking and driving. For each of these behaviors, the consumer is rarely paying the full cost of their dangerous behaviors.

Will restoring healthy markets solve our health care crisis? There are several obstacles that present significant obstacles to the creation of an efficient market. First, healthy markets are premised upon competition among suppliers. Is there adequate competition among health care providers? In many small communities, there is a single clinic or hospital. Large startup costs make it unlikely that there will be a surge in health care providers in rural communities.

Second, markets are most efficient when both purchasers and suppliers make their decisions with perfect information. In practice, health care providers rarely provide the relevant information that patients need to make wise purchasing decisions. For example, patients are rarely aware of either the costs or alternative options of various medical services. The problem can become even more exacerbated with the use and/or misuse of some pharmaceutical advertising. Consumers may not be aware of the relative effectiveness of various pharmaceutical products, and may rely on simply brand recognition. This is a very significant problem in that prescription drugs are also among the most rapidly increasing health care costs.

Finally, the elasticity between price and supply and demand is very difficult to measure. Will consumers really taper their demand for health care services if they are

forced to pay for more of the cost? Although health economics models suggest that they will, there is not a lot of real-world evidence either for or against the hypothesized change in consumer behavior.

Towards Market-Based Solutions: The Development of HSAs

The previous section of the paper outlined how the existing health care market has deviated significantly from efficiency. Can an efficient health care market be restored? Recent changes in federal law have created a very exciting opportunity that might help. In December 2003, President Bush signed into law a Medicare bill that included, among other provisions, the creation of Health Care Savings Accounts (HSAs). HSAs were modeled after Archer Medical Savings Account (MSAs), but improved upon them in many respects. Both Medical Savings Accounts (MSAs) and Health Savings Accounts (HSAs) were designed to be a personal savings account used in conjunction with a low cost, high deductible plan, offered to people under the age of 65 years old. The difference between the two lies in the legislation that created each of them. MSAs were first implemented under the Health Insurance Portability and Accountability Act (HIPAA) which created Archer MSAs to improve long term care accessibility for small businesses and the self employed. This program allowed employees of small businesses (under 50) and the self employed to participate in a health care financing plan that coupled a low cost/high deductible plan with a personal savings account in order to allow more individual control over health care needs. All of the benefits of MSAs are included in the current benefits of HSAs. For example, interest or other earnings on the savings

accumulate tax free; contributions (although regulated by law) are tax deductible and the accounts are portable.

The restrictions on the MSA plans hindered their success. Restrictions such as not allowing businesses with over 50 employees to participate and capping the total enrollment at 700,000 accounts convinced employers and insurers that there would be a limited market for these accounts. With the new legislation enacted at the end of 2003, these concerns have been minimized. The HSA plan does not have any restrictions for the size of business that can participate nor does it put a cap on the total number of accounts that can be opened. Moreover, employers and employees can contribute to the HSA during the same year, a feature not allowed under the MSA plan. Individual contributions are tax deductible, and all left over funds can be rolled over to the next year. The definition of a high deductible plan encompasses a \$1000 or higher for an individual coverage plan and \$2000 or higher for a family coverage plan. Instead of only being able to contribute a percentage of the deductible, HSAs permit contributions of 100 percent of the deductible or up to a contribution limit set at \$2600 for individual coverage plans and \$5150 for family coverage plans. A person with a HSA can pay for qualified medical expenses out of their savings account and after the age of 59 ½, they can withdraw their money for non-medical expenses and only pay income tax. Otherwise, for withdrawals for non-qualified medical expenses before this age, the penalty is 10% plus income tax deductions.

Do Personal Savings Accounts Work?: Evidence from Singapore

Medical Savings Accounts or Health Savings Accounts (as they are now known in the United States) have recently been in the limelight because of their potential solution to the rising costs of health care. The idea of these savings accounts has been adopted in various places around the world. Singapore has the longest experience with these accounts. In 1984, Singapore implemented a health system that utilizes MSAs. Since then, Singapore has adapted its system and serves as a significant contributor to the global policy debate focused around the health care question and more specifically, the success or viability of MSAs. (Hsiao, 2001)

Singapore is a healthy country from many different perspectives. It has an adult literacy rate 92% and the Life Expectancy at birth is 78 yrs. (UNICEF.) Before 1984, its system of health care stemmed from the system implemented under British colonial rule in which Singaporeans relied on hospital care that was free and clinics that were directly subsidized by the government. (Barr 2001). In an effort to shift the financial burden of health care from the government to individuals, a system of individual MSAs known as Medisave was implemented. (Piya 2002) This is a system of compulsory savings in which the rates of contribution are calculated by a person's age. Medisave is set up so that the employer pays half of the contribution and the employee then pays the other half. Enrollment in the system is mandatory for all Singaporeans and withdrawals for expenses other than health are not allowed. Medisave acted and still acts as a contributor to health care financing, and it is coupled with two other supplemental programs, or adaptations, known as Medishield and Medifund.

After Medisave was put into practice, the government noted that a supplemental policy covering catastrophic events might be necessary considering that some illnesses and operations are beyond the coverage capability of Medisave. In the instance of a severe illness, it is probable that the funds in a person's MSA would be insufficient to cover all of the expenses so a voluntary high deductible plan known as Medishield was offered to all Singaporeans in 1990(Hsiao, 1995). Although Medisave is compulsory, Medishield is voluntary but strongly encouraged by the government. In fact, all people are automatically enrolled in the program unless the member requests otherwise. The premium for Medishield is deducted from a member's Medisave funds (Hsiao, 1995).

In 1993, the government created an endowment fund known as Medifund in order to provide assistance for those people who are unable to pay for medical care expenses from their Medisave Account. This fund serves as a social safety net to catch people before they fall through the cracks of the system. Patients who need these funds must apply for them and their cases are then reviewed by Hospital Medifund Committees (Piya 2002).

An issue that has been addressed in almost every discussion of this system is that in comparison to other developed nations around the world, Singapore spends a relatively small portion of their GDP on health care, only 3-4 percent. Many government officials in Singapore seem to attribute this to the success of MSAs, but both Mark Pauly and Micheal Barr contend that this fact needs to be explained further because not all of it is attributed to Singapore's health care financing system. Barr argues that MSAs have been a minor element in the success of the system and most of the low health costs are attributed "primarily to heavy-handed government cost control of both inputs and

outputs, rationing based on wealth, and to social and demographic features peculiar to Singapore” (Barr, 2001).

The Singapore government plays a significant role in the health care system. Most hospitals in Singapore are publicly funded and thus heavily subsidized by the government. To promote efficiency in the hospitals, the government encouraged the development of private hospitals and clinics to compete with those in the public sector. (Hsiao, 1995) Also, there has been strong governmental control in health care management, seeing as the number of doctors and hospital beds and their distribution within the county are under tight governmental control. (Piya 2002)

The implications from the system implemented in Singapore have been reviewed with mixed results. Everyone studying the Singapore experience has wanted to definitively answer the question, “Did Singapore’s system work?” As of yet, no single person has been able to answer that question fully. Many scholars have attributed this lack of analysis, and emphasis on educated guesswork, to two main reasons. One is the fact that the Singaporean government has been rather stingy on releasing information that is much needed for an accurate analysis of the situation. The other reason is that at the same time Singapore was starting its system of MSAs, it was also implementing other policy initiatives which makes it hard to analyze each component separately. (Piya 2002) William Hsiao, a major academic in this area of policy, believes that Singapore’s system was largely ineffective in reducing or controlling health care cost inflation.(Hsiao) But in a more recent article, Mark V. Pauly contends it is likely that Singapore’s system made costs lower and access higher than it otherwise would have been, had the system not been implemented. He also partially attributes the low levels of spending, decent health

outcomes, and little complaint about the system to demographics. (Pauly 2001) In 1991, only 6.2% of Singapore's population was sixty-five or older, therefore, according to Barr and Pauly, Singapore has yet to face an aging population. Thus, in the next decade, when the elderly become more prominent, the demand for health services will inevitably increase.

Overall, the effects of Singapore's system of health financing have proven to be inconclusive. Although a detailed analysis of the system has been largely impossible, many scholars in the field have had success by taking a broader look at the Singapore health care system. They agree, for the most part, that it isn't a "panacea nor a catastrophe," (Piya 2002) and for an intelligent discussion of MSAs, this system merits further examination.

Health Care Insurance Purchasing Problems in Rural Areas

In the first section of this paper, we discussed how rural areas have been particularly hard-hit by the current health care crisis. There is a strong trend throughout the United States that large employers are much more likely to assist their employees in buying health insurance than small businesses. Because rural businesses tend to be smaller in size, they have been particularly disadvantaged by these trends.

Why do health insurers favor large businesses over small businesses? Imagine a scenario where two different employees groups apply for insurance from your company. The first business is small (10 employees). All of the employees have relatively good health histories. The second business is large (1000 employees). All of its employees have relatively good health histories as well.

Why do insurance companies offer better rates to the larger group than the smaller group, although their health histories are identical? There are a few reasons. First, health insurance companies are in the business to make money. They will avoid doing business with groups that present significant risk to their profits. Second, health care expenditures can be dominated by just a few extreme outliers, all of which are on the high expense (rather than low expense) side. As a result, if an employee of the small business became seriously ill and incurred several hundred thousand dollars in medical bills, it would be impossible for the remaining nine employees to make up the difference with their premiums.

To the contrary, the business with 1000 employees can afford to have a small but measurable number of people become seriously ill and still produce profits for the insurer. So there is an inherent bias in the insurance industry that favors large groups over small groups, of course controlling for the health histories of each group.

In addition, there seems to be evidence that agricultural producers, even when controlling for age, health, and anticipated occupational risk, are nevertheless priced significantly higher in the health insurance market. Some scholars suggest that this may be due to improper combining of very disparate groups (i.e. Minnesota family farms and seasonal California agriculture workers). Thus, the health care insurance market may also suffer from improper risk determination for occupations held by larger numbers of rural residents.

Finally, other scholars suggest that small businesses may pay as much as 25% more in premiums than larger businesses that self-insure. Because rural Minnesota has a

larger share of small businesses than non-rural Minnesota, this trend also works against rural residents.

The Search for Solutions: Health Care Purchasing Alliances

Small employers have been aware of this bias for many years. As a result, they have made numerous attempts to pool their purchasing power together so that they can obtain the better rates offered to larger employers. Although earlier attempts were made at employer pooling, the modern Health Care Purchasing Alliance movement was born in the early 1990's. During this time legislation was literally going into effect from one coast to another. Since, that time there have been failures and success stories. California, Connecticut, North Carolina, Ohio, Colorado, Connecticut, Minnesota, Florida, and Texas have all experimented with different forms of purchasing alliances within their states. Each offers distinctive lessons to be learned by other groups interested in pooling risk.

California began its pooling experiment in July of 1993. The Health Insurance Plan of California or (HIPC) was financed by a \$5.5 million government loan from the state. It was managed by the MRMIB, a government agency that also managed several other insurance firms. HIPC restricted its membership to businesses with between 2 and 50 employees. HIPC members were able to offer their employees the choice between all participating plans in the employer's area. Employers were to contribute half to the least costly plan available. HIPC had the power to negotiate premiums and could also exclude unsatisfactory plans. The law that led to the creation of HIPC stipulated that in 1996 the

HIPC must go private. So, in 1999 Pacific Business Group on Health took control. At its peak in 1999 HIPC was only able to gain 2% of the market share.

Many impediments stood in the way of HIPC's success. The major problems cited by Pollock and Hall studies were marketing, agents, and heavy competition with insurance companies. Marketing was a problem because the HIPC did not originally budget enough money for effective marketing to take place. This made the product known to only a small number of people. The second problem was hostility of agents. Agents are crucial to selling the product. This occurred because from early in the HIPC's development Blue Cross Blue Shield (BCBS) saw the HIPC as a threat and treated it as one. This made it difficult for the HIPC to utilize the significant market share that Blue Cross held in the small business market. The conflict between the HIPC and BCBS caused many agents that would sell the plan to lack enthusiasm.

Florida was another state that made a similar attempt at forming purchasing alliances. The program was named the Community Health Purchasing Alliance or CHPA. As was the case in California, CHPA was formed in 1993. Unlike HIPC, the CHPA was started as a private non-profit organization. It was given \$8 million in Florida state grants. CHPA was open to employers with 1 to 50 employees. The system was made up of eleven CHPAs and all of these were under a state agency for oversight. Also, different from HIPC was the inability of CHPA's to negotiate directly for premium prices, due to state law. CHPA offered a choice between 2 plans, standard and basic. The CHPAs were required to sell both of these plans. By 1998, at the peak of CHPA's performance, the market share that had been gained was only 5%. Initially CHPAs had a price advantage but eventually that decreased.

CHPA failure was due to a few major problems. The first problem was that CHPA became the last resort for many people. This made the CHPA a perfect example of adverse selection. Adverse selection is a phenomenon that occurs when an insurance provider is only able to attract all of the worst cases and is unable to gain low risk people to lower the costs. The second problem was hostility from agents. As seen in the HIPC experiment, agents play a significant role. When agents do not receive sufficient commissions, they are less likely to push the alliance's product. The CHPA's failure led the Florida legislature to repeal the legislation. In 2000, the CHPA became unaffiliated with the state.

The Texas Insurance Purchasing Alliance began in 1995 with legislation from that state. It was modeled after HIPC but unlike HIPC it was a non-profit entity. The Texas program, like California, Florida and Connecticut programs, was developed to serve businesses with 2 to 50 employees. Blue Cross and Blue Shield administered the program. At the peak of TIPA it was only able to gain 1% of the total market share. It was eventually dissolved in 1999 due to lack of funding, agent hostility, and insufficient marketing. Texas tried to solve the problems that other HPAs had encountered with agents by entirely bypassing agents. TIPA decided to sell directly to businesses. This proved to be unhelpful and eventually agents were brought into the process. These agents were not paid enough and did not attract many more customers. Marketing was another problem with TIPA. The budget was seen as far too small to attract a large number of people. Adverse selection is another factor that led to the demise of TIPA. Adverse selection caused premiums to rise, which caused TIPA to lose its edge in the market.

The Connecticut plan, called Health Connections, was sponsored by the Connecticut Business and Industry Association (CBIA), and was open to all small businesses in Connecticut with 3 or more employees. This plan was different from most others because it was a totally private entity. At its peak Health Connections was only able to gain 6% of the total market share available. Health Connections offered a choice between 16 different plans. In 2003 CBIA offered two sets of plans one for small employers and one for large.

Other states attempts at purchasing alliances are Colorado, Ohio, and North Carolina. Colorado's version was called Cooperative for Health Insurance Purchasing or CHIP. It was founded in 1995 and funded by a grant from the Hartford Foundation, making CHIP a non-profit with no ties to the government. CHIP avoided adverse selection by having several rating factors including age, location, family size, and plan benefits.

North Carolina's alliance was called Caroliance. It was set up and funded by the North Carolina legislature in 1993. A board appointed by the state governed it. It was made up of six alliances. Caroliance at its peak reached 1.6% of the market. Caroliance had the same problems of adverse selection, agent hostility and lack of marketing that other alliances also experienced.

Ohio's alliance plan is known as COSE: The Council of Smaller Enterprises of Cleveland, Ohio. COSE is a totally private cooperative that began in 1973. COSE has been able to offer price breaks, negotiate terms and premiums, and dominate the small market in Cleveland. It continues to increase its market share by 2-3% a year.

There are several lessons to be learned from the past attempts at forming purchasing alliances. The first lesson is that marketing plays a large part in bringing people into alliances. Therefore it should be seen as a major item on any HPAs budget. Marketing is also significant because the more people that an alliance can bring in the more successful it will be. The second lesson that must be learned is that agents are crucial to selling the product and therefore must feel confident and happy about what they are doing. Commissions must equal or exceed other products to encourage sales. The third lesson to be learned is that if the alliance is not able to offer a competitive set of plans and prices it will fail. The third lesson is that a purchasing alliance must be able to gain enough members to become a significant force when negotiating premiums.

Looking Home for Help: Minnesota Purchasing Alliances

Since 1993 Minnesota has been trying to develop a workable plan to make it feasible for small employers in the state to offer health insurance coverage to their employees. 1993 saw the states first attempt at an employee purchasing pool, this was called Minnesota Employees Purchasing Program or (MEIP). It was determined in 1998 that MEIP was a failure for the same reasons that many other alliances throughout the country have failed. MEIP failed because it fell victim to adverse selection, offered too many choices which drove up costs, and proved incapable of gaining the level of agent participation that was necessary for success.

Minnesota began its current drive for the creation of purchasing alliances in 1997 with the enactment of Section 62 T or the Purchasing Arrangements Act. Subsequent revisions have passed in 1998, 2001, and 2003. In 1999, the Minnesota Department of

Health began issuing start up grants for \$100,000 and two years. These grants were given to the Southwest Care Purchasing Alliance (Prairie Care) and the Northwest Health Care Purchasing Alliance (Rural Care Partners). These original start-up grants were supplemented in 2001 by a one year \$50,000 grant to continue the projects. The Brainerd Lakes Purchasing Alliance received a 2 year \$100,000 start-up grant in 2001. The Northeast purchasing alliance also received a one year \$50,000 start up grant in 2001.

The Stop Loss Action Fund was appropriated \$1.7 million in 2001. This money was to make sure that the northwest, north central, and southwest alliance would be able to provide coverage to people currently without health insurance. This was needed because this was believed to be the primary area where costs might be highest. This legislation provided a state fund that could be used to subsidize qualified individuals health costs for a short period of time.

The Southwest Health Care Purchasing Alliance or Prairie Care began in 1999 with a two year \$100,000 start-up grant from the Minnesota Department of Health. It covers the 9 most southern counties in Minnesota. Prairie Care partnered with the Sioux Valley Health Plan in Sioux Falls, South Dakota for administration needs. There were significant problems that were eventually solved by the Stop Loss legislation of 2001. In September of 2001, Prairie Care received another grant from the Minnesota Department of Health. This grant was for \$50,000 and was to continue the development of the program. Prairie Health Purchasing Alliance reports that it started marketing August 2003 and currently has 3 groups with 17 total enrollments. They sell \$1000, \$2000, and \$3000 deductible plans. They have found their premiums are only slightly better than BCBS. The one purchaser group that seems eager to sign up is the businesses of 1 (i.e. farmers)

and PHA is contractually prohibited from selling more than 10% of the total enrollment to this segment.

Northwestern Health Care Purchasing Alliance, or Rural Care Partners was created in 1999. The group was originally formed in 1994 and was responsible for the creation of the purchasing alliance that was then called the Northwest Minnesota Health Initiative. In 1999, the group received a 2-year start up grant from the Minnesota Department of Health. Rural Care Partners covers seven counties in Minnesota, Kittson, Lake of the Woods, Marshall, Dennington, Polk, Red Lake, and Roseau. In 2001 an additional grant of \$50,000 was given to Rural Care Partners.

Rural Care Partners offers three plans. These plans are all available to employers of one. The plans are designed to cover employers with one to fifty employees. In a recent update by AMOM, Rural Care Partners reported that its enrollment was down from estimates for 2001. Rural Care Partners anticipated 2000 enrollees by Jan. 1, 2004. They started selling Jan 2003 and they now have 15 groups with 139 employee contracts and 1000 total enrollment. They also have local large company Polaris using their network as a self-insured group for 1400 enrollees. The deductibles are \$0, \$1000, \$3000 and policy sales are fairly evenly spread among the deductibles.

Central Minnesota Health Care Purchasing Alliance was formed in 2001. It was funded by a 2 year \$100,000 start up grant to the Brainerd Lakes Chamber of Commerce. AMOM report states that they are currently working with UCare and there are several other insurance providers interested in partnering with them. Central Minnesota HPA

was able to move quickly because of barriers resolved by Rural Care Partners and Prairie Care.

The Northeast Health Care Purchasing Alliance or Breakwater was formed in 2001 when it received a \$50,000 development grant from the Minnesota Department of Health. Breakwater will cover Northern Pine, Carlton, St. Louis and Lake Counties. Enrollees will be asked to pay 20% of doctor visits and tests. Also, the plan will require adults to have four screening tests a year for fasting blood sugar, cholesterol, blood pressure, and tobacco use. Breakwater is currently working with First Plan, an independent licensee of Blue Cross Blue Shield.

Organization of the HPA: Legal Structure

The brief history of pooling efforts demonstrates the wide variety of options available to pooling groups. Some of these options include forming as a non-profit group, a cooperative, or a MEWA (Multiple Employer Welfare Arrangements). A MEWA offers some benefits that are not enjoyed by other plans. MEWA plans are covered under the Employee Retirement Income Security Act (ERISA) and, therefore, may be exempt from some state insurance regulations.

Another option for Minnesota HPAs is to contract directly with an Accountable Provider Network (APN). An APN is a group of providers that themselves offer the plan to the HPA. Formation of an APN can be difficult, however, due to significant solvency requirements required by the State. Providers may also not be interested in being exposed to the financial risks associated with APN formation.

Another option that an HPA might follow is to contract with an established insurer, either as a primary insurer or for stop-loss insurance. There are reasons to

suggest that working with an established insurer and simply contracting with them to purchase their product might not be the most efficient.

First, it can be argued that a not-for profit group, such as an HPA, might be able to offer insurance to more residents than a for-profit group. The primary reason is that for-profit groups, by definition, are in their particular businesses in order to make profits. They have a fiduciary responsibility to maximize their profits for their stockholders. As a result, they price their product in a way to maximize their profits. There will inevitably be a deliberate tradeoff between the number of subscribers and the profits they can earn per subscriber.

Similarly, some not-for-profit groups behave very much like for-profit groups. While not formally required to produce profits for their shareholders, many nevertheless pursue opportunities that maximize revenues and minimize expenditures. They act very similarly to for-profit groups, yet they might use a variety of techniques to spend all of their excess revenue each year so as to continue their non-profit or not-for-profit status.

Alternatively, a community-oriented non-profit group (such as a Health Care Purchasing Alliance) might price its product so that the price will simply be at or above the total costs. There is no profit motive. As a result, it is at least theoretically possible for this type of not-for-profit group to have business practices that have the socially desirable characteristic of insuring more people.

Bush Proposal

The President has also proposed some legislation that might positively affect the affordability of HSAs. The President supports a Health Insurance Tax Credit that would

help individuals purchase insurance and health care. The proposal is income sensitive. He has also proposed a Traditional Health Insurance Tax Credit that would pay for 90% of the cost of the premium for standard coverage (maximum of \$1,000 for an individual and \$3000 for a family of four). His Health Insurance Tax Credit with HAS program would allow purchasers to use a portion of the credit to purchase a high deductible premium while using the remaining amount (up to \$300 for an individual and \$1000 for a family of four) into their HSA. Finally, the President also proposes allocating \$4 billion to states to establish purchasing pools.

Putting It All Together: A Proposal

So how might we take what we have learned and put it together to try and restore a more efficient health care market?

- 1) Offer HSAs. HSAs will likely affect consumer choices, making patient choices more efficient. Ideally, consumers should individually (rather than collectively) pay for most of the health care that they consume.
- 2) Pool. Purchasing pools offer small but measurable savings to small employers.
- 3) Understand the problems that have plagued past pooling attempts and avoid them. Allow plenty of resources for marketing and agent commissions.
- 4) Realize that very few purchasing alliances have enrolled an adequate number of employees. Solicit the input of brokers and agents as to the desirable components of a marketable product. Develop a sales plan with them and develop a strong marketing strategy. Consider two different benefits sets. The first benefit set would be a bare-bones product at the most affordable price. While originally targeted to small businesses that

currently offer insurance to their employees, we might find that larger businesses may want to go this route as well. By forming as a MEWA, we might possibly also benefit from not having to comply with all state regulations as our competitors will because we are covered under ERISA . Offer a second HSA product that offers a very rich benefit set to employers in the region. The target audience for this product will likely be large businesses. In other words, the two products would have two different target audiences with the common goal of increasing the purchasing alliance's total enrollment.

5) Integrate a health care ratings system for each business at enrollment. The history of purchasing alliances has shown that adverse selection is a significant problem. If we choose not to rate, we may lose the healthiest (and most profitable) customer base.

6) Incorporate a wellness program. Find ways to reduce the overall health care costs of those with chronic disease. Cover preventative care and use creative techniques to encourage their utilization. Consider the legality and feasibility of giving refunds and/or rate reductions to those with healthy lifestyles (smoking, weight, etc.).

7) Increase consumer knowledge through education programs. Markets can only become efficient when consumers have solid information about their health care. Study information dissemination practices of those most successful health care plans and/or providers and build on them.

8) Ensure portability. If an employee changes jobs, they can take their HSA with them.

9) Perhaps the greatest obstacle will be in finding a reinsurer that will work with us, regardless of whether we choose to form as a MEWA or an APN. There is significant anecdotal evidence that the reinsurance market dramatically worsened following the

terror attacks of September 11, 2001. The economic climate may be difficult for reinsurers to try something relatively new and untested.

With these points in mind, here are two sample products that could be developed:

Sample Products:

MyHealth Silver –

Minimum Benefit Set as Allowed by Federal Law

Minimum Deductibles: Individual (\$1000) Family (\$2000)

Maximum Out of Pocket: Individual (\$3000) Family (\$6000)

MyHealth Platinum

Rich Benefit Set as Defined by Both State Law and/or Large Employers

Minimum Deductibles: Individual (\$1000) Family (\$2000)

Maximum Out of Pocket: Individual (\$3000) Family (\$6000)

Who are potential partners?

According to HSA Insider, the following insurance companies offer HSA products in Minnesota:

Assurant

Blue Cross Blue Shield of Minnesota

CIGNA HealthCare

Great-West Healthcare

HealthPartners

John Alden Insurance

Medica

UNICARE

UnitedHealthcare

The following offer HSAs for Self-Insured Companies:

Alliance Benefit Group

Alliance Benefit Group North Central States, Inc.

Alliance Benefit Group of Indiana

AmeriHealth Administrators (AHA)

AssureCare of Illinois

AssureCare of MI

AssureCare of MN

AssureCare of Ohio

Benefit Administrators

Benefit Consultants Group

Benefit Planners

Blue Cross Blue Shield of New Mexico

CareFirst Blue Cross and Blue Shield
Great-West Healthcare
Group Benefit Services, Inc
Harrington
HealthEquity, Inc.
HealthFirst Third Party Administrators
Insurers Administrative Corporation
KPS Health Plans
Lumenos
MedBen
Medical Mutual
Mellon Financial
MSAver
Mutual of Omaha Insurance Company
North American Health Plans
Nyhart
PERFORMAX
Plan3, Inc.
Principal Financial Group
Professional Benefits Administrators, Inc.
The ODS Companies
Wausau Benefits

Conclusion

Americans are now confronted with a very serious crisis in health care. The costs of health care are quickly becoming out of reach for many Americans and their employers. While there is general agreement that there is a significant problem, there is much less agreement as to the solutions.

In this paper, we summarized some of the major data showing the crisis in our health care system, examined the origins and history of insurance, described the problem of runaway health spending from a health economics perspective, demonstrated how this disproportionately affects small employers in rural areas, recounted the history of efforts at pooling, and articulated a potential solution to the problem by partially restoring an efficient health care market.

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