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This monograph was prepared for the Academy by a 20-member work group. The precise composition of this group was necessitated by the nature of this project and the importance of the work involved. The group is unlike other Academy work groups, which consist solely of Academy members. The Risk Adjustment Work Group includes actuaries, health economists, and health policy professionals who work as consultants, who are employed by insurance carriers, and who are staff for national health associations, as well as a physician.

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EXECUTIVE SUMMARY

Introduction

Health risk assessment and health risk adjustment are key components of recent Federal and state health care reform proposals. Last year, the Academy's Risk Adjustment Work Group completed its monograph, Health Risk Assessment and Health Risk Adjustment — Crucial Elements in Effective Health Care Reform, (May 1993), which provided policy makers and others with a summary of the basics of health risk assessment and health risk adjustment in health care reform. The following report takes a closer look at what is already taking place in the United States and in other countries.

Because there are few operating models of risk adjustment, there is value in exploring any existing approaches for lessons to be learned. The first section of the monograph provides an overview of state activity and summarizes the laws enacted that address risk adjustment or rating practices for the individual and/or small group insurance markets. The monograph then examines more closely the approaches of two states, New York and California, in implementing and/or considering risk adjustment provisions in their recent legislative reforms.

New York's Risk Adjustment

On July 17, 1992, Governor Mario Cuomo of New York signed into law Chapter 501 of the Laws of 1992, popularly known as the Community Rating and Open Enrollment Law. The law, most provisions of which took effect April 1, 1993, mandates that medical expense coverage offered to groups of 50 or fewer eligible employees and to individuals be rated without regard to age, sex, industry/occupation, or health status. Medical underwriting is allowed only for ". . . the imposition of a pre-existing condition limitation . . ." The section on New York discusses the law and the implementation process.

While the New York law seems to be working, it is not without problems. In retrospect, New York could have done some things differently. The process could have allowed for more industry participation and feedback. Also, the process could have sought a greater degree of actuarial input from professional organizations. Finally, more time could have been allowed for implementation. Incremental change, such as allowing the law to take effect upon renewal, rather than setting a fixed date (April 1, 1993) might have smoothed, although extended, the transition. While the ultimate impact of this model is still to be determined, the model illustrates that a risk adjustment mechanism can be implemented fairly quickly without significant additional administrative costs.

California's Move Towards Risk Adjustment

On October 1, 1992 a new law went into effect in California implementing major reform of the small group employer health market. The law includes a requirement for guaranteed issuance of health insurance to small groups between five and 50 employees (phasing down to three employees by July 1, 1995). Rate differentiation by age and geographical area is allowed, but not by gender, occupation, or industry. The new law also created the Health Insurance Plan of California (HIPC), initially operating under the responsibility of the California Managed Risk Medical Insurance Board (MRMIB). The MRMIB establishes program rules (e.g., participation), negotiates contracts with health plans, directs marketing efforts, and monitors contract compliance.

Since New York is the only state with a risk adjustment mechanism in place (aside from states with reinsurance pools), it is interesting to consider its possible applicability to California. In comparing and contrasting the two states, the monograph discusses the key differences. Although it is only a partial implementation of managed competition, the California HIPC purchasing pool will continue to be an interesting model, contributing to the discussion of health care reform. The experience in California may indicate that legislation needs to specifically mandate the use of a risk adjustment method.

Risk Adjustment in Netherlands

The final section of the monograph reviews the experience of the Netherlands. Nearly a decade ago the Dutch began to study ways to improve the efficiency of their system. Their health care system at that time was substantially different from what has evolved in the United States in several ways: extent of government regulation, degree of access, manner of funding, etc. However, the nature of the reform in the Netherlands is similar to some proposals suggested for adoption in the United States in its reliance on the managed competition concepts originated by Alain Enthoven and in the significant use of risk adjustment.

Conclusion

The New York model shows that it is possible to design and implement a system fairly quickly. The California experience shows that if legislation does not mandate risk adjustment, it is less likely to evolve voluntarily. The experience of the Netherlands points out the hazards of trying to implement a system that lacks consensus, and that is complex and difficult to administer. These factors will be critical to the acceptance of any system adopted.

Risk adjustment is necessary under a reformed health care environment. Without risk adjustment methods, rating structures being considered in health reform proposals are likely to provide incentives to carriers to avoid high-risk individuals in order to maintain the most competitive premiums, and individuals will continue to face premium or contribution choices that reflect risk selection rather than medical and administrative efficiency. The Academy considers risk adjustmen a necessity if rating restrictions do not allow up-front matching of premiums or contributions with the relative risk factors of the purchasers.

INTRODUCTION

The first section of this monograph provides an overview of state activity and summarizes laws enacted that address risk adjustment or rating practices for the individual and/or small group insurance markets. A summary of state small group reform is provided in Appendix One.

The monograph's second section examines more closely the experience of two states, New York and California, that have considered and implemented risk adjustment as part of recent health care reforms:

- On July 17, 1992, Governor Mario Cuomo of New York signed into law Chapter 501 of the Laws of 1992, popularly known as the Community Rating and Open Enrollment Law. The law, effective April 1, 1993, mandates that medical expense coverage offered to specified small groups and individuals be rated without regard to age, sex, industry/occupation or health status. Medical underwriting is only allowed for ". . . the imposition of a pre-existing condition limitation . . ." This section provides a background on the new law and describes the pools' methodology, operation, results and possible enhancements.

- On October 1, 1992, Governor Pete Wilson of California signed legislation to reform the small employer group health market. On July 1, 1993, the new law went into effect, enacting major reform in the small employer group health market and including a requirement for the guaranteed issuance of health policies to small groups. The law also created the nation's first statewide health insurance purchasing alliance, called the Health Insurance Plan of California (HIPC), which began operation on July 1, 1993. The carriers participating inside the HIPC are currently discussing the need and alternatives for risk adjustment. The implications of the California legislation are discussed and a detailed report of the state's activities is provided. Moreover, the data issues involved with this process are explored and the approach is compared to the New York legislation.

The final section provides an overview of reform activity in the Netherlands. The reform in the Netherlands is similar to some proposals suggested for the United States in its reliance on the managed competition concepts originated by Alain Enthoven and in the significant use of risk adjustment. Risk adjustment in the Netherlands has not progressed as orginally hoped, due to lack of consensus about the most suitable formula, and concerns over complexity and administrative issues. These are also criticial concerns for any approach considered in the United States.

OVERVIEW OF STATE ACTIVITY

Rate Restrictions

Since 1990, many states have enacted laws that address risk adjustment or rating practices for the individual and/or small group insurance markets in the context of small group reform. These laws limit or restrict rate variations for small groups. Most of them expand access to insurance coverage by requiring carriers to issue a policy to any eligible small group and by closing gaps in coverage by restricting the use of pre-existing condition limitations. Several laws also implement reforms in the individual insurance market.

Several forms of rate restrictions are currently used. States may allow rates for a particular benefit plan to vary either within a band, by geographic area, or by family composition (e.g. two adults, one parent and one child, etc.). Some states also specify the exact family composition that a carrier may use. Overall, the result is that rates within a market are compressed; that is, the range of rates that an insurer may charge an employer is narrower than was previously allowed. The more rates are compressed, the greater the need for risk adjustment.

Rating bands limit how much rates may vary within a category due to the risk characteristics of the insured group. Risk characteristics include medical conditions, claims experience, and duration of coverage (i.e., the length of time the carrier has provided coverage to the group). Carriers may be allowed to set different rates for different case characteristics, such as age composition, gender composition, industry, size and geographic location, often without specific limits. Rate variations for case characteristics are expected to be used only to the extent indicated by sound actuarial practice.

Two model statutes have been developed by the National Association of Insurance Commissioners (NAIC) and the Health Insurance Association of America (HIAA) to assist states in reforming their rating practices. As of January 1994, 21 states have adopted the NAIC rating method, and seven have adopted the HIAA method. Both models limit the amount of rate variation within and across classes of business. Some states have tighter rating bands than those included in the two model statutes. Definitions of allowable classes of business distinctions vary by state, but generally a separate marketing channel would be a distinct class. The most recent NAIC model limits the number of classes to nine. Classes are required to have expected differences in claims experience or administrative expense. Carriers are prohibited from moving small groups between classes. (It should be noted that the NAIC is currently rewriting its rating provision.)

The NAIC model does not limit the variation in rates that results from differences between groups for case characteristics (e.g., age, gender, size of group, area), except for industry. It does limit how much rates can vary within a class of business for risk characteristics, and the variation in rates between classes is also limited.

For employers with identical case characteristics, the NAIC rate restrictions currently allow a ± 25% variation around an index rate for a given block of business. In addition, for all employers with identical case characteristics, rates are subject to an overall limitation of two-to-one variation.

Several states have gone further than the NAIC rate limits, moving towards pure community rating that requires carriers to charge everyone in the community the same premium rate, regardless of a group's health risk or demographic characteristics. The community may be defined in numerous ways (e.g. all small employers with 50 or fewer employees in each county). Currently, New York has pure community rating that allows variation for geographic and family category; other states such as Maine and New Jersey are moving in that direction along a specific time schedule. Some states allow certain case characteristics such as age and area to be used as the carrier believes appropriate (or as approved by a regulatory agency), while restricting the combination of some case characteristics such as gender, industry and size and the risk characteristics to a particular band such as ± 20%. Some states place limits on area variation or limit the number of rating areas that can be used. The same is true for family composition (e.g., two adults, one adult and one child, etc.). The overall result is that rates within a market are compressed as compared to the current market. The highest and lowest rates are closer together while the average rate may change only slightly. The difference would depend upon which elements of reform the state has adopted. Appendix One summarizes the various state rate restrictions that apply as of July 1, 1994.

Reinsurance Pools

Some states have instituted risk adjustment through the use of reinsurance pools. Reinsurance pools address one of the goals of risk assessment and risk adjustment: spreading the costs of high risk groups among the carriers operating in a market, not just to those who accept such groups into their pool of risks. Some carriers attract a disporportionately large share of high-risk groups, because of their product design, marketing, or rating practices. Rather than have those carriers bear the cost of guaranteed issue provisions, the reinsurance mechanism spreads these costs across the market. The mechanism allows a carrier to identify those individuals who are to be reinsured and pay the pool a premium. Generally, the premiums are based on the age and geographic location of the reinsured person. If a large claim, usually $5,000 or more, is incurred by that individual, the carrier is reimbursed by the pool. If, as expected, the pool loses money, the shortfall is made up by all pool participants through an assessment that is based on market share.

Appendix One shows which states have established mandatory versus voluntary reinsurance pools. Most of the pools are structured as typical dollar stop-loss programs, with the notable exception of New York which is a condition-specific pool. (High risk pools, which are insurers of last resort for people who cannot otherwise obtain coverage, are not addressed in this monograph.)

As of January 1994, 10 states (Connecticut, Florida, Iowa, Kansas, Massachusetts, Minnesota, New York, North Carolina, Oregon, and Wyoming) have active prospective reinsurance pools. Appendix Two shows the status of these pools. In addition, four states (Tennessee, Idaho, Rhode Island, and Ohio) are scheduled to start reinsurance pools very soon, and seven more states (Alaska, California, Colorado, Delaware, Montana, South Carolina, and Texas) may join them pending legislative action.

In most states reinsurance pools are available only to newly written groups with a carrier. Connecticut is an example of a state that allows both new and existing insureds to participate in its reinsurance pool, which partly accounts for the large number of lives in its pool.

A number of states in addition to New York and California have specifically addressed risk adjustment in their state reform initiatives. These are described in Appendix Three.

RISK ADJUSTMENT IN NEW YORK

Background

On July 17, 1992, Governor Mario Cuomo of New York signed into law Chapter 501 of the Laws of 1992, popularly known as the Community Rating and Open Enrollment Law. The law, for the most part effective April 1, 1993, mandates that medical expense coverage offered to groups of 50 or fewer eligible employees and to individuals be rated without regard to age, sex, industry/occupation or health status. Medical underwriting is only allowed for ". . . the imposition of a pre-existing condition limitation . . ."

Prior to the implementation of Chapter 501 there was wide variation in rating practices within the small employer and individual markets of New York. Carriers such as Blue Cross/Blue Shield and HMOs were already using community rating. Some carriers used demographic rate adjustments while others used experience rating for small groups. Blue Cross plans were required to enroll individuals, whereas commercial carriers and HMOs could (and largely did) restrict themselves to the small group market. Many carriers, generally commercial insurers, used underwriting on small groups, as well as individuals. Those carriers employing selective underwriting and rating practices were generally able to attract groups with lower claim costs. These practices were somewhat offset by differentials in hospital costs granted to certain plans through the regulated hospital reimbursement mechanism.

Chapter 501 also required, by regulation, the establishment of:

". . . reinsurance or a pooling process involving insurer contributions to, or receipts from, a fund which shall be designed to share the risk of or equalize high cost claims, claims of high cost persons, cost variations among insurers and health maintenance organizations based upon demographic factors of the persons insured which correlate with such cost variations designed to protect insurers from disproportionate adverse risks of offering coverage to all applicants; provided that such regulations shall relate only to risk sharing among insurers and health maintenance organi-

zations and shall not create differences in community rates charged by a single insurer because an individual's or small group's coverage has been reinsured or pooled, and neither the small employer nor the employee shall have reason to know that their coverage has been reinsured or pooled pursuant to such regulations. Such regulations may also include other mechanisms designed to share risks or prevent undue variations in insurer claim costs which are not related to expected differences in insurer costs based upon competition, innovation and efficiency of operation. The regulations may segregate any reinsurance, pooling or other process among various geographic regions of the state."

This mandate resulted in the promulgation of Regulation 146 (11NYCRR 361), effective December 22, 1992. Regulation 146 establishes a market stabilization process by establishing three specific risk pools in each of seven geographic areas. One risk pool is a specified medical conditions pooling fund. For a predetermined per capita contribution, carriers are reimbursed for costs attributable to specified conditions up to a fixed maximum amount. The other two pools are demographic pools where transfers to or from the pool are based on the average age/sex factor of a carrier's enrollment within the geographic area. One such demographic pool is for individual/small group non-Medicare supplement business. The other pool is for Medicare supplement business.

In this market environment, carriers had developed in force portfolios with widely differing average claims costs, largely due to different demographic profiles. If each carrier moved to an unadjusted community rate appropriate for its own book of business, then a great deal of market disruption could occur as higher cost insureds sought out lower rates. The demographic pooling and risk adjustment process was designed to recognize this issue and to limit any disruption.

Risk Pooling Approach

The following descriptions of the risk pools' methodology, operation, results, and possible enhancements are as of December 1993.

Methodology. The purposes of the pooling process, established by the New York Insurance Department with assistance from a Technical Advisory Committee, included the following:

A. To share among insurers, including HMOs, those substantive cost variations attributable to significant differences in demographic characteristics of the persons covered. The protection afforded by this sharing process will facilitate the introduction of mandated open enrollment and community rating by providing some assurance to insurers that their business and competitive interests will be secure because they are protected from sudden or significant changes in the proportion of high cost persons they cover, and because other insurers will not obtain a competitive advantage by avoiding or failing to insure a proportionate share of high cost persons;
B. To promote competition among insurers on the bases of efficient claims handling, ability to manage health care services, consumer satisfaction, and low administrative costs, and to deter competition on the basis of avoiding or terminating coverage of persons whose health care costs are high;
C. To protect insurers that are subject to the open enrollment and community rating provisions of Chapter 501 from undue variations in costs that are not related to differences in operating efficiency, the ability to manage care, or provider agreements; and
D. To encourage insurers to enter, remain in, and compete vigorously in the small group and/or individual health insurance markets.

To achieve these purposes, the New York Insurance Department first established 12 criteria that should be met by any pooling process:

a. The process achieves the goals specified above.
b. The process is administratively simple and inexpensive
c. The process is perceived by insurers and HMOs to be equitable.
d. The process will not cause a different premium rate to be charged to an individual or small group because they are reinsured/pooled.
e. The process will not inform an insured individual or group whether its coverage has been reinsured/pooled.
f. The process establishes separate pools for different types of products and the markets served by markedly different groups of competitors.
g. Each pool includes all insurers and HMOs which offer product(s) in the market covered by the pool.
h. The process is self-financing.

i. The process cannot be gamed.
j. The process does not reward inefficient or sloppy claims administration.
k. The process deals only with substantial differences among pool participants; it does not attempt to deal with all variables or to achieve precise equity.
l. The process allows participants in the pools to build anticipated payments to or from the pools into their premium rates.

Based on the intended purposes and general design criteria, a number of fundamental questions were addressed and answered:

1. How to identify "undue variations in costs which are not related to differences in operating efficiency, the ability to manage care, or provider agreements," while satisfying the 12 design criteria specified above?
Answer: A number of possible mechanisms were considered as indicators of "undue variations in costs," including the following four:

i. aberrational demographic (i.e. age and sex) pattern for a pool participant's book of business.
ii. aberrational pattern of health risks for a pool participant's book of business.
iii. aberrational incidence of claims for specified high-cost medical conditions.
iv. aberrational average claim costs.

The second mechanism was judged to be desirable but impractical; no current method of health risk assessment meets design criterion (b) ("administratively simple and inexpensive"). The fourth mechanism was rejected as too broad; it would reflect variations other than those intended to be pooled, and it could violate design criterion (j) ("not reward inefficient or sloppy claims administration"). Accordingly, demographic distribution and high-cost medical conditions were selected as the risk adjustment criteria.

2. Which organizations should participate in the pools?
Answer: All insurers which write business governed by Chapter 501, including HMOs, should participate in order to achieve the intended purposes (see design criterion (c)).

3. Should participation be voluntary or mandatory?
Answer: Participation must be mandatory, in order to achieve the intended purposes. If it were voluntary, some, if not all, organizations with disproportionately favorable risks would choose not to participate, thereby defeating the purpose of pooling (see design criterion (g)).

4. How many pools should be established?
Answer: This is an extremely complex issue. Design criterion (f) is to "establish separate pools for different types of products and the markets served by markedly different groups of competitors". In addition, the law (Chapter 501 of the Laws of 1992) explicitly stipulated that the "regulations may segregate any reinsurance, pooling or other process among various geographical regions of the state."

Accordingly, the decision was made to establish separate pools for seven different geographic regions, corresponding to the different service/rating areas used by the Blue Cross/Blue Shield plans in New York.

In addition, separate pools were established in each region for Medicare supplement and other health insurance business, since many organizations serving the Medicare supplement market do not sell other health insurance and vice versa.

The question of whether or not to have separate pools for individual and small group health insurance was considered at length. It was finally decided to consider individual and small group risks together, in order to promote the affordability of individual health insurance and to achieve a satisfactory spreading of risks. In addition, moving to an open-enrollment, community-rated environment eliminates some differences between the individual and very small group (1—5 employees) markets. While small group carriers are not required to offer individual health insurance, they are obligated to accept 2-life groups and self-employed individuals (sole proprietors) into their small group programs. Products can be somewhat limited for these one and two life groups, but standard rates and sales compensation are required. Since very small groups generally have higher claims costs per individual, this requirement should help to narrow risk differentials among competing carriers.

Including the Specified Medical Conditions (SMC) Pool in each geographic region, there are 21 pools—3 for each of the seven regions (SMC, Medicare Supplement Demographic and Individual/Small Group Non-Medicare Supplement Demographic).

5. What lines of business should be pooled?

Answer: In general, all health insurance subject to the requirements of community rating and open enrollment is pooled. In particular, all individual and small group health insurance is included in the pools, except the following:

i. Group conversion policies;
ii. Policies covering Medicaid recipients;
iii. Medicare risk contracts;
iv. Guaranteed renewable and/or non-cancelable individual health insurance policies issued prior to February 1, 1993 and not sold thereafter;
v. Long term care insurance;
vi. Insurance covering only nursing home care and/or home care;
vii. Dental only insurance;
viii. Vision only insurance;
ix. Accident only indemnity insurance;
x. Accidental death and dismemberment insurance;
xi. Prescription drugs only insurance;
xii. Disability income insurance;
xiii. Fixed dollar hospital and surgical indemnity benefits, unless the dollar amounts are high enough to be considered essentially basic hospital or basic medical insurance.

In addition to the above categories, carriers with closed blocks of policies sold prior to July 17, 1992 can request exemption from community rating, if the policy (form) " . . . has not been sold for a significant period of time and either covers a very small number of individuals or has been subsidized by the insurer for an extended period of time."

6. How are demographic differences identified and pooled?

Answer: Once demographic distribution had been selected as one of the risk adjustment criteria, the insurance department sought input from a few major insurers in New York state as to appropriate age/sex factors to compare the demographics of one group against another. These insurers were asked to provide the insurance department with the relative claim factors by age and sex for individuals and for families. Certain types of insurers exhibited a different slope from other types of insurers; i.e., the slope of the claims factors by age was much flatter for the HMOs than for the indemnity carriers, since HMOs generally provide more preventive care benefits than indemnity insurers. The age/sex factors ultimately selected were a blend of the factors of the surveyed companies.

In order to achieve the appropriate relationship between individuals and families, it was necessary to consider the relationship of the average premiums charged for families to the average premiums charged for individuals. The premium factors set forth in Section 361.3(c)(1) of Regulation 146 reflect this relationship.

To calculate the average demographic factor for a carrier in a particular geographic pool, the appropriate age/sex claim factor and age/sex premium factor is assigned to each unit (individual or family) insured under the insurance contract or policy. The claim factors are added. The premium factors are added. The total claims factor is then divided by the total premium factor to obtain the average factor for that contract or policy. Each average factor is weighted by the annualized premium for that contract or policy within the geographic pool. The weighted average of these average factors is called the average demographic factor for that carrier.

The regional demographic factor is the average of all pool participants' average demographic factors, weighted by annualized premium. There is a regional demographic factor for Medicare supplement insurance and one for non-Medicare supplement insurance. A carrier with an average demographic factor below the regional demographic factor (risk lower than the average) would pay into the pool in proportion to the degree to which its factor is below the average; a carrier with an average demographic factor above the regional demographic factor (risk higher than the average) could expect to receive money from the pool in proportion to the degree to which its factor is above the average.

Payments to and disbursements from a demographic pool throughout each calendar year are based upon the demographic excess or deficit (compared to the regional demographic factor) as a percentage of a carrier's demographic factor; that percentage is multiplied by expected claims (annualized premiums x expected loss ratio). In May of the following year, an annual reconciliation for each carrier is made based on each carrier's actual demographics and actual incurred claims.

7. How are specified medical conditions identified and pooled?

Answer: One of the HMOs operating in New York state came forward with a plan for pooling the risk of specified medical conditions that was adopted by the Insurance Department. For each insured unit that a carrier insures for coverage other than Medicare supplement insurance the carrier pays an amount into the pool that is based on the

type of contract and how many persons are insured. In return the carrier may collect up to a specified amount from the pooling fund whenever one of its insureds has a medical condition on the designated list in the regulation. The reimbursement is either a single sum or a monthly amount depending upon the condition.

The SMC pools integrate with the demographic pools at the point where the specified medical conditions become aberrational. In other words, the SMC premium and the demographic pools anticipate a normal incidence of these conditions and the SMC reimbursements partially fund aberrations. A traditional excess stop loss reinsurance arrangement was considered and rejected, because of the complications of claim definitions, because it was considered to be too broad (reimbursing too many conditions), because the managed care thrust was considered to be less focused and because it was considered to be more subject to gaming.

Operation. As previously mentioned, New York state is divided into seven distinct geographic regions defined by county (Albany, Buffalo, Mid-Hudson, New York, Rochester, Syracuse, Utica/Watertown). The pools operate independently in each region. Thus, a payment into the Albany pool may not be offset by an expected disbursement from the New York pool.

Within each region, three pools operate. Two are demographic pools: one for Medicare supplemental policies and the other for individual and small group (50 employees or less) policies. The third pool, the specified medical conditions (SMC) pool, is for non-Medicare supplement individual and small group policies only.

Demographic Pools. Each carrier is required, on a quarterly basis, to calculate its Average Demographic Factor (ADF) for each region in which the carrier provides a contract or policy. The ADF is a weighted average of a prescribed set of demographic factors for each carrier based on age, sex, and family status of its insured population, as published in Regulation 146. The weighted average is in direct proportion to the annualized premium for each contract. Based on ADFs and annualized premiums submitted by all carriers in a region, a Regional Demographic Factor (RDF) is calculated. The RDF is the weighted average of all of the ADFs submitted by the carriers with the weighting in direct proportion to annualized premiums.

Payments to or disbursements from the pool for a quarter are based on a comparison between the ADF for a region and the RDF for that region. If the ADF is higher, the carrier will receive a payment for that region from the pool. If the ADF is lower, a payment into the pool will be required. The amount of the payment or disbursement is a percentage of expected claims with the percentage in direct proportion to the difference between the RDF and ADF.

Payments are due 30 days following the end of the quarter and are based on the ADFs and RDFs as of the beginning of the second quarter preceding the quarter just ended and the annualized premium as of the beginning of the quarter just ended. For instance, the payment due January 30, 1994 is for the fourth quarter of 1993 and is based on the ADFs and RDFs as of April 1, 1993 and the annualized premiums as of October 1, 1993. Payments from the pool are made about 90 days following the quarter's end, using the same methodology. If there are insufficient funds in any region, the disbursements in that region are proportionately reduced. The timing of data submissions is designed to allow carriers time to make appropriate adjustments to their rates. In order to provide a starting set of RDFs, the regulation methodology was applied to survey data, which, though incomplete, was the basis for the interim (estimated) RDFs promulgated in Regulation 146.

Currently the amounts paid into (or, or due to legal challenges described later, put into escrow for) the small group/individual demographic pool amount to approximately 3.5% of premiums; payments from the pool are considerably less, because of amounts escrowed. But, theoretically they should also consistute 3.5% of premium outflow.

In May, a final reconciliation is made for the previous year. Each carrier determines its ADF for the year as the weighted average of its quarterly ADFs and reports it along with its incurred claims for the year. After the first year of operation, the administrator will determine the RDF for the year as the weighted average of the reported RDFs for each quarter. Ultimate payments and disbursements are calculated in essentially the same manner as the quarterly disbursements. Reconciliation payments and disbursements began in July 1994.

Specified Medical Conditions (SMC) Pools. Carriers make quarterly payments into the SMC pools (due 30 days following the beginning of the quarter) at a rate of $5 per single and $10 per family policy. If the policy design is hospital only or hospital and surgical only, this amount is reduced to $3.75/$7.50 (a factor of .75). If the policy design is wraparound or supplemental major medical, the payment is reduced to $1.25/$2.50 (a factor of .25). Payment levels will be reviewed annually.

Carriers will receive disbursements from these pools for each insured who incurs one of the specified conditions (e.g., transplant, neonate, HIV, ventilator dependency). The disbursements are a fixed lump sum or monthly amount (limited to the amount actually paid by the carrier), depending on the condition. Disbursements are set at

a level below the expected cost of the condition so as to encourage managed care practices. Carriers are required to submit a pre-notice when they become aware of a potential claim and full documentation when the course of medical treatment is complete (or when their costs have exceeded the reimbursement level).

Required documentation includes a form identifying the carrier, patient and condition, copies of bills, a listing of payments made, and copies of specified medical records.

Reimbursement levels will be reviewed annually. Other conditions, such as new treatments for bone marrow transplants, may be added to the list if a sufficient number of carriers indicate that they believe the treatment is effective and that they routinely pay for it in their non-small group business.

Transition Comments. Regulation 146 was promulgated in late December 1992 and the last circular letter describing administrative procedures was published in April 1993. Since the pools were implemented on April 1, 1993, there was very little time for carriers to learn the procedures and adapt their systems to provide the relevant data and calculations. As a result, most carriers were late in submitting their data and many found it necessary to revise their original submissions at least once. However, about 90% of the carriers are now able to provide their data on time, and some carriers continue to revise submissions.

The fact that carriers could adapt so quickly is attributable to the simplicity of the pools. Carriers did not need to ask many questions about the design of the pool. There were few complaints that the required information was onerous. However, whether all carriers have actually done their calculations properly is still being scrutinized and will be monitored as a regular administrative activity.

A number of issues have been brought to the attention of the administrator and/or the insurance department for resolution and are in the process of being evaluated. In some cases the carriers desire to simplify the calculations because certain information has proven difficult to ascertain. For instance, the law applies to employers with 50 employees or less while some carriers only have information on the number of employees whom they insure in the employer group. Some carriers have had difficulty identifying the proper region in which a contract belongs. It is also unclear how to handle individual policyholders who have moved out of state. The insurance department will, ultimately, clarify these matters.

Data Issues

A significant result of the initial submissions was that the RDFs generated from actual data submitted by the carriers turned out to be higher in certain regions than the interim estimates made by the insurance department. The RDFs promulgated in Regulation 146 were based on 1991 data submitted by 16 carriers. The data was nearly two years old and represented only the larger carriers in New York State. Other possible reasons for this increase include:

- Loss of business, especially younger lives, for carriers between July 1, 1991 and April 1, 1993.

- Premium weighting by type of insurance contract was not used in the initial estimate of the RDFs. Apparently older people buy richer (more comprehensive benefits) contracts.

- The initial calculation assumed that all persons over age 65 had Medicare as their primary carrier, whereas the carriers' April 1, 1993 submitted data and the regulation differentiate between Medicare primary and Medicare secondary eligibles.

By raising an RDF, carriers who are required to pay into the demographic pools will be required to pay more and carriers who expect to receive money will receive less, or may even be required to pay into the pool. Also, since many carriers were late in submitting data, the calculated (as opposed to estimated) RDFs did not become available on a timely basis. Some carriers have noted that they did not have enough time to reflect the increased payments into their rates. In some cases, especially where rate guarantees are involved, the change in rates might not be fully implemented for as much as a year. Clearly, if more complete data had been used in the initial calculation and the RDFs were published shortly thereafter, the severity of the change would have been reduced. On the other hand, such an approach would have delayed the implementation of the risk adjustment mechanism beyond the April 1, 1993 effective date of the law. Moreover, after the initial recalculation of the RDFs, subsequent changes have been more modest.

Industry Reaction

The initial commercial carrier reaction to the New York law was not favorable. Many commercial carriers threatened to cease doing business (individual and small group) in the state, although very few in fact did. No significant carrier left the market entirely, although some stopped selling non-HMO products, such as fee-for-service indemnity products. Some carriers filed lawsuits against the law and the pools. One lawsuit, filed by the New York State HMO Conference, resulted in the application of the contributions of most HMOs to an escrow account and thus reduced the funds available for immediate distribution from the pools.

One development that may become a source of concern is the lack of activity in the SMC pools. Through the first nine months of operation only 10 pre-notifications and one claim were submitted. More recently, a significant number of prenotifications and claims have been received. Carriers have until December 31, 1994 to submit 1993 claims for reimbursement. Anecdotal conversations with carriers indicate that there have been delays in setting up procedures to identify valid claims and accumulate the required documentation. Carriers also indicate that their systems and claims practices are not geared to identify the types of conditions required by the SMC pools. For instance, to get reimbursement for an individual with HIV, the patient must have a CD4 count below 50 on two consecutive tests. However, the CD4 count comes from a blood test that most carriers have not routinely obtained or recorded.

A final observation is that while the law tries to regulate both HMOs and indemnity carriers, these businesses operate differently. Calculational differences may arise when HMOs have to develop incurred claims for their affected business when this is not something they have historically calculated. HMOs will also have to identify and isolate costs for the specified medical conditions that are not currently tracked. Staff-model HMOs, especially, seem to have difficulty with the concept of incurred claims.

Conclusions

Timing Considerations. Timing was a significant factor during promulgation, implementation and operation. For example, the law was signed by Governor Cuomo on July 17, 1992, and regulations were promulgated on December 22, 1992. The rates were filed by commercial carriers at the end of January 1993 and the beginning of February 1993. The law took effect April 1, 1993.

Regulation 146 requires determination of demographic factors at a specified point in time (beginning of a quarter) for use at a future point in time (ideally six months later). The need for this six-month deferral is driven by consideration of the participating carriers, who need the opportunity to adjust rates prospectively, submit the rate increase to the department for approval, and give proper notice to each affected policyholder in order to collect the appropriate premium, after the RDFs are calculated and promulgated. This six-month lag creates an administrative burden, as well as a technical complication. In theory, it would be better to calculate the demographics at the same time they are applied, but this would not allow time for premium adjustment. Under such an approach, carriers would be continually behind in their (proper) funding.

Expected claims, used in the weighting of the demographic factors, will be different from actual incurred claims, as used in the annual reconciliation. Even at reconciliation, actual amounts are still estimates to be further trued up in subsequent years.

In order to track the impact of the law on availability and coverage provided, the data gathering for the New York State Insurance Department could be coordinated with pool administration, except that, once again, timing or the lack thereof got in the way. The pools had to be up and running by April 1, 1993, whereas data collection was unavoidably delayed.

Therefore, timing considerations should be carefully balanced with the need/mandate for reform.

Design of SMC Pool. In the design of the SMC pool, a traditional excess claims reinsurance pool was initially proposed and then discarded in favor of a pool with a fixed reimbursement for certain specified medical conditions. Among the concerns with the traditional approach were that it was too broad (reimbursed for too many conditions) and did not encourage managed care practices. On the other hand, the promulgated approach of a specified medical conditions pool could be criticized as being too limited and not truly addressing enough catastrophic conditions.

The SMC pool, though imperfect, is not too broad and can be modified as the future necessitates. By reimbursing up to a stipulated, fixed amount it has a managed care thrust in that carriers are encouraged to manage costs down to the promulgated amount. The SMC pool conditions for reimbursement have been criticized on the bases of confidentiality problems and administrative difficulty.

Use of such a mechanism requires an administrative vehicle for addressing such concerns, including rules and/or procedures for adding and changing the list of specified medical conditions.

Legal Activity. To date five suits have been filed related to New York state's risk-sharing pool, among them two significant appeals. One appeal is being filed by a commercial carrier in state court, the other is being filed by the New York Insurance Department against a group of HMOs that won a U.S. District Court ruling.

In the latter case, 24 HMOs had argued that New York's pooling mechanism unfairly forces some HMOs and insurers to subsidize others, particularly Blue Cross/Blue Shield organizations. The U.S. District Judge ruled that, "because the preemption clause [under ERISA] is broadly construed and covers any regulation that would have the effect of forcing an ERISA plan either to increase costs or reduce benefits, the regulation is covered by the preemption clause."

Effects of the Law. The effect of the law on insured enrollment cannot be definitively ascertained at this time. Lack of complete, reliable data renders any conclusion regarding achievement of the goal of increased coverage premature and possibly erroneous or misleading. There have been shifts in enrollment as carriers positioned themselves to compete for market share.

Medical expense insurance rates in New York still show considerable variation by geographical region, type of carrier, and benefit structure. The rates are derived from a requirement that carriers submit rates monthly to the New York Insurance Department on the pair of high/low cost plans most commonly sold. From those submissions, a rate package of over 50 pages was developed showing rates by region, type of carrier, and type of coverage.

Community rates for the majority of New York's commercial insurance companies were filed by February 1, 1993 for an April 1, 1993 effective date. Most of them were approved in the month of February 1993. Some rates were approved as submitted; others had to be changed. In the first weeks of April 1993, several carriers requested and received approval for rate reductions, due to regulatory action. Most carriers appear to have been able to comply with the new regulations.

The use of expected claims in the determination of the demographic pool payments and receipts creates some potential for gaming. This was anticipated in the design of the system, and is controlled in a number of ways. The demographic pool payments and receipts are trued up in each of the two subsequent years to correct for differences between expected and actual claims as well as for differences between actual and estimated demographics. Furthermore, the administrator reviews each submission, and has the authority to require substantiation for submissions that appear to be unreasonable or are inconsistent with a carrier's rate filings (e.g. estimated claims resulting in loss ratios significantly different from those in filed rates). These safeguards are intended to minimize the effects of gaming.

Summary. Community rating legislation and regulatory activity, in combination with carrier reaction, have affected the market in a number of ways. Although it is too early to predict long-term effects, date since enactment of the law indicate that:

- Most carriers are still in the market;
- There appears to be movement toward managed care plans; and
- There is no evidence that the number of uninsureds has decreased.

Risk adjustment in New York State was intended to counteract existing risk differentials resulting from age, sex, and health status differences in the inforces of carriers, and could be viewed a financial mechanism to facilitate community rating. While the ultimate impact of this model is still to be determined, the model illustrates that a risk adjustment mechanism can be implemented fairly quickly and easily, without significant additional administrative costs.

In retrospect, some of the things that could have been done differently include allowing for more industry participation and support. The process could have had more actuarial input from professional organizations and could have allowed more time for implementation. Incremental change, such as allowing the law to take effect upon renewal, rather than on a fixed date, might have smoothed, although extended, the transition.

RISK ADJUSTMENT IN CALIFORNIA

Background

On October 1, 1992 a new law was signed in California enacting major reform of the small group employer health market. This includes a requirement for the guaranteed issuance of health insurance to small groups between five and 50 employees (phasing down to three employees by July 1, 1995). It also requires each carrier to publish its standard employee risk rates and allows a ± 20% (phasing down to 10%) variation from that standard rate for reasons such as health status. Rate differentiation by age and geographical area is allowed, but not by gender, occupation, or industry (although, those can be part of the ± 20%).

The new law also created the Health Insurance Plan of California (HIPC), initially operating under the responsibility of the California Managed Risk Medical Insurance Board (MRMIB). The state required that within the first 30 months of operation, the MRMIB would seek appropriate nonprofit organizations to operate up to 6 regional HIPCs. The MRMIB establishes program rules (e.g., participation), negotiates contracts with health plans, directs marketing efforts, and monitors contract compliance. The HIPC was created as a mechanism to collectively purchase stable, affordable health insurance or managed care coverage for small businesses in the state. The HIPC is strictly voluntary, and carriers competing inside the HIPC can also sell outside the HIPC.

The health plans within the HIPC are subject to all the minimum restrictions mentioned above. In addition, the MRMIB chose to place additional limitations on participating carriers including contracting for all rates with no allowance for rate bands, restricting the number of geographic rate categories, and requiring certain participation conditions. Two standard plan designs are offered: a health maintenance organization (HMO) plan and a preferred provider organization (PPO) plan—each with a "high/low" cost sharing option. When an employer chooses the HIPC, each worker can select the benefit option and carrier of his or her choice, with the ability to change on an annual basis. There is no maximum enrollment cap inside the HIPC.

Marketing, enrollment, and billing are handled by a contracted vendor, selected by the MRMIB. The HIPC is marketed both directly and through agents and brokers. A particular employer can choose to use an agent and pay a fee roughly equal to 5% of premiums. The MRMIB has established the standard compensation payable to an agent, if one is used, but carriers can pay additional commission if they desire. In practice, over 75% of businesses enrolling in the HIPC use an agent. No medical evidence is allowable under the enrollment process, and participating carriers and brokers are prohibited from explicitly or implicitly discriminating against applicants on the basis of health status.

Of the 22 health plans that entered into negotiations with the MRMIB in the first year, 18 were selected to participate. This was partially based upon their willingness and ability to meet certain requirements, including service, fiscal stability, enrollment, data collection, and quality standards. Additionally, the various health plans must compete on the basis of price. As was mentioned earlier, the MRMIB does not allow the use of the ± 20% band around standard rates, although this band may be used by carriers outside the HIPC. To avoid selection against the HIPC, the pool has strived to offer rates that are comparable to the -20% rates offered in the outside marketplace. This is considered possible because of the competitive price pressures on carriers inside the HIPC, as well as because of certain administrative and marketing savings.

Current Status

There are 15 HMOs and three PPOs currently available (depending upon location) within the HIPC. As of March 1, 1994, there were 2,286 businesses enrolled, covering 39,444 employees and their dependents. Currently, about 4,000 to 5,000 people are being added to plans within the HIPC each month. Of those, about 11% did not previously have health insurance available through their employers. HMO plans have been selected by 81% of participants with about 70% of HMO enrollees choosing the best three HMO plans. Of the PPO carriers, the top carrier is getting over 50% of the PPO enrollees.

Tables One and Two summarize the demographic characteristics of HMO and PPO plans. HMOs are enrolling a significantly higher proportion of the younger population; however, it is important to again point out that all carriers vary their premium rates by age brackets to compensate for such differences. On average, HMOs have slightly fewer female enrollees (not an allowable premium rating factor) and slightly more larger families. These tables do not indicate the differences between carriers.

TABLE ONE
AGE DISTRIBUTION FOR MEN AND WOMEN COMBINED
(all enrollees, including dependents)

Age	HMO	PPO	Aggregate
0-29	25.2%	10.7%	22.4%
30-39	39.1%	31.7%	37.7%
40-49	24.3%	35.0%	26.3%
50-54	6.0%	10.9%	6.9%
55-59	3.1%	6.4%	3.8%
60-64	1.9%	4.0%	2.3%
65+	0.4%	1.3%	0.6%
TOTAL	100.0%	100.0%	100.0%
Average age (years)	27.6	34.0	30.4

Source: Statistics supplied by the California Managed Risk Medical Insurance Board

TABLE TWO
DISTRIBUTION OF WOMEN BY AGE GROUP
(indicates proportion of enrollees who are female)

Age	HMO	PPO	Aggregate
0-29	48.5%	51.8%	48.8%
30-39	47.5%	52.6%	48.3%
40-49	50.8%	50.3%	50.7%
50-54	52.1%	54.5%	52.9%
54-59	53.0%	49.7%	51.9%
60-64	52.9%	50.4%	52.1%
65+	53.5%	51.8%	52.8%
OVERALL	49.1%	51.6%	49.6%

RATIO OF ENROLLEES TO EMPLOYEES

Type of Dependent Coverage	HMO	PPO	Aggregate
Employee & Spouse	2.00	2.00	2.00
Employee & Children	2.61	2.59	2.60
Employee, Spouse, Children	3.94	3.92	3.93

The California MRMIB Risk Adjustment Work Group

The California law calls for the consideration of a prospective risk adjustment mechanism within the HIPC. To examine and recommend a workable mechanism, a work group representing all carriers was assembled by the MRMIB for a series of meetings beginning in August, 1993. The goals of the work group were as follows:

1. Agree upon a test instrument to be used to predict the risk factors of prospective subscribers and dependents in plans under HIPC.

2. Agree upon the parameters of the method to be used to administer the risk assessment tool.

3. Agree upon the diagnostic/utilization data elements that will be used to test the validity of the risk assessment tool.

4. Assess whether there is a risk concentration in HIPC plans that is not accounted for by the HIPC's age and region-adjusted rating structure.

5. If necessary, assess whether the risk assessment tool is a good enough predictor of risk to be used for risk adjustment of premiums in future HIPC contracts, ie., whereby the "raw" premium of a given carrier would be adjusted up or down based on the risk profile of that carrier.

Implicit in the above goals is the idea that there does not have to be risk adjustment within the HIPC. The work group's first task was to define an assessment mechanism to evaluate whether actual risk adjustment was needed. The experience gained from this process could contribute to the debate in other states and at the national level.

Progress

The California MRMIB work group briefly reviewed the various forms of risk assessment as discussed in recent publications. For practical reasons, the group eliminated, at least for the short term, the following:

- Methods relying on detailed claims analysis, other than those for specific high-cost conditions. This was due to the level of complexity involved in collection and consolidation of data across all participating carriers. The difficulty of this task is further exacerbated by special data availability issues pertaining to some HMOs.

- Methods relying upon the collection and analysis of prior use of health care services. Such methods were ruled out for several reasons: 1) Good information on prior use of health care services would not be available since there is no medical underwriting inside the HIPC; 2) The research that has been done to date on the validity of this approach has shown only nominal results and applies largely to the over-65 population; and 3) Collection of the necessary information would be very costly and subject to error.

- Methods involving self-reported health status. This approach has great intrinsic appeal to most members but is still undergoing scientific validation as to its predictive power. In addition, there are administrative difficulties pertaining to certain segments of the population (children, different languages, cultures, etc.)

Still under consideration are:

- More detailed demographic characteristics than those allowed in premium rating (e.g., gender, industry, age within current age bands, and more discrete geographic areas). This would recognize characteristics, which cannot be reflected in premiums, that contribute to non-homogeneous risk distribution.

- Use of morbidity data in the form of discrete diagnoses and/or procedures identifying significant expected costs.

The second approach above has received the most discussion, but also raises some potential problems. First of all, tracking catastrophic claims is normally associated with retrospective adjustment, such as reinsurance mechanisms or the New York risk adjustment approach for specified medical conditions. The HIPC risk adjustment, if any, is to be prospective. Second, large catastrophic claims are rare and may occur too infrequently to be meaningful for risk assessment purposes. This is particularly true given the relatively small number of enrollees in most plans for the foreseeable future. Third, if risk adjustment only considered significant, catastrophic conditions, there is some concern

about the potential for gaming by the various plans. This would include putting together networks that are unattractive to patients who have diseases that are less costly than catastrophic (e.g., $15,000–$50,000) but that occur more frequently and are therefore still potentially costly to a given plan. These include AIDS and cancer.

Therefore, the discussion has gone in the direction of designing a list of diagnosis/procedure markers that represent relatively more common cases with predictable total costs, but with costs per case in the range of $15,000 to $50,000.

These markers would be intended to assess different risk profiles between competing plans on a prospective basis. The following ideal criteria were identified for choosing this list:

1. The list would be relatively short—it is easier to add another marker in the future than to remove one (but the initial list may be longer than the New York list).

2. The list may involve diagnosis-treatment pairs to identify conditions.

3. The individual diagnosis should be nondiscretionary and not subject to manipulation.

4. Costs associated with each marker should be relatively equal (i.e., the variation in cost should not be large); an acceptable range needs to be found.

5. The method should not be biased toward higher cost or inefficient treatment settings.

For example, nondiscretionary diagnoses of certain types of diabetes are strong predictors of prospective costs for the next year. Finding similar diagnoses may prove problematic.

Data Issues

A major problem associated with all risk assessment/adjustment mechanisms, including those being discussed in California, is the availability of the data necessary to make risk calculations. This is especially true of those mechanisms that use diagnosis and procedure codes. The problem is particularly prevalent for those health plans, such as some capitated HMOs, that do not view the payment for medical services as a claims payment process. Typically, more traditional health insurers have collected diagnosis and procedure codes as part of their claims process and, therefore, have the data for all types of provider encounters.

The problem is more acute for outpatient care than inpatient care. Many HMOs do not have detailed encounter data that includes diagnosis and procedure for all outpatient visits. While more data are available from all HMOs for hospital care, availability is still not complete from some HMOs. There are a few HMOs who capitate certain types of hospital care and, therefore, do not have the detailed data.

To the extent that the risk assessment/adjustment mechanism does not need detailed data from all health plans on all encounters, but only specific data on a limited set of conditions, it may be much easier to expect all health plans to be able to provide the data in the short run. In addition, if the relatively short list of conditions consist of high cost conditions, then there is an even greater expectation that the health plans will be tracking those costs regardless of their capitated arrangements.

Contrast with New York

As discussed previously, the New York adjustment mechanism consists of: (1) a regional demographic mechanism to compare the age/gender distribution of each particular carrier to that of the overall marketplace, with transfers of funds based on those comparisons, and (2) a regional specified medical condition mechanism to compensate carriers up to fixed dollar amounts for the occurrence of certain high-cost diagnoses and procedures.

Since New York is the only state with a risk adjustment mechanism in place (aside from states with reinsurance

pools), it might be interesting to consider its possible applicability to the California approach. In comparing and contrasting the two states, there are eight key differences to note:

1. I mplementation in California is probably about 18 months behind New York. This is because the New York risk adjustment went into effect on April 1, 1993, whereas the methodology for the California HIPC has not yet been determined.

2. Age rating is not allowed in New York (i.e., pure community rating is used). The California HIPC does allow age rating. Thus carriers within the HIPC are not subject to as much of a variation in demographics. For both New York and the California HIPC, gender, occupation, industry, and health status are not allowable rating parameters.

3. The New York risk adjustment is universal across the entire individual and small group market—risk adjustment in California applies only to the portion of small group plans sold inside the HIPC.

4. California law has a provision for a separate voluntary reinsurance mechanism.

5. The search for a risk adjustment mechanism in California is not a regulatory process. Rather it is a consensus of participating carriers. There does not even have to be risk adjustment.

6. The New York mechanism is retrospective, at least with regard to the risk adjustment for specified conditions. The California HIPC requires prospective adjustment, which is inherently more complex to design.

7. A carrier in New York will tend to cover most or all of the employees within a single employer group, as with traditional group underwriting. The California HIPC allows each employee to voluntarily select from the entire list of eligible carriers. Participation requirements in the HIPC only relate to the minimum number of employees selecting some carrier.

8. The market environment is very different in the two states. First of all, California is more involved with managed care. Also, New York is characterized as including one huge metropolitan area, with the rest of the state being composed of smaller cities and rural areas; California on the other hand has a number of large cities. New York has a greater number of residents from neighboring states crossing its borders to work or utilize its health care services. Finally, hospitals in New York City are much closer to full occupancy than is the case in California.

Conclusion

Although it is a only partial implementation of managed competition, the California HIPC will be an interesting model in the continuing discussion of health care reform. To date, there has been no agreement on a risk adjustment method or any decision on whether risk adjustment is necessary. This may indicate that the legislation needs to specifically mandate the use of a risk adjustment method.

RISK ADJUSTMENT IN THE NETHERLANDS

In considering health care reform alternatives for the United States, and in particular the role risk adjustment might play in such alternatives, it is natural to look to the experiences of health care systems in other countries for any lessons to be learned. The Netherlands has been cited by several commentators as being especially worthy of attention. Nearly a decade ago, the Dutch began to study ways to improve the efficiency of their system. Their health care system at that time was substantially different from what has evolved in the United States in several ways: extent of government regulation, degree of access, manner of funding, etc. However, the nature of the reform in the Netherlands relates to some proposals suggested for adoption in the United States in its reliance on the managed competition concepts originated by Alain Enthoven and in the intention to make significant use of risk adjustment.

Because the Dutch reform program had a sizeable head start on the United States effort (initial report completed March 1987, first modest implementation steps taken January 1989), it was hoped that we could learn a great deal from what was happening in the Netherlands. Unfortunately, the Dutch reform effort bogged down with several postponements in the transition schedule and the occurrence of several unanticipated and unintended effects. Increased competition did not result, as several of the largest Dutch insurers agreed to establish an administrative partnership. Expected decreases in premium rates did not occur. In addition, there were substantial reductions in net pay after insurance costs, especially for those earning near the minimum wage.

Background

Basic health care in the Netherlands has been provided by a public insurance program which covers over 60% of the population, private insurance which covers about 35% of the population (those who earn more than the income ceiling for the public plan), and the statutory plans for civil servants which cover about 5% of the population. In addition, the entire population is covered under a mandatory national catastrophic medical program, which pays the cost of exceptional medical expenses. There is no separate system or coverage for industrial injury or occupational disease.

The public insurance program requires contributions of a percent age of gross wages (matched by the employer) plus an annual premium. The coverage for civil servants is funded in a similar manner. Those with private insurance pay their own premium after a contribution by their employer comparable to the amount employers pay for employees under the public insurance program. The exceptional medical expense program is funded primarily by a mandatory income-related assessment administered in conjunction with income taxes.

The private insurance market has two types of policies: company designed policies and the Standard Coverage Policy, which has state regulated benefits and premiums. The latter is for people who do not meet company underwriting requirements and for people aged 65 and over.

Companies place employees who purchase a Standard Coverage Policy in a pooling system. Premiums, less an allowance for commissions and other expenses, are paid to the pool, and benefits are recovered from the pool. The resulting pool revenue deficiencies are funded by a mandated fixed surcharge on all private insurance policies. Thus, in the private insurance market healthy people subsidize health care for the old and the sick.

Under a proposed market reform, for which the initial broad support no longer exists, the current four-part system would be replaced by a new compulsory public plan for all residents which would cover most basic and catastrophic health expenses. Private insurers would be involved in the administration of this plan and would also be allowed to sell voluntary supplementary coverage. They would not be allowed to refuse basic coverage to anyone. The proposal had been characterized as "regulation by incentive" and was intended to introduce more risk to insurers and spur additional competition among them.

Risk Adjustment Method

The original Dutch health care restructuring proposal called for the continuation of funding primarily through income related payments into a central fund. However, there would also be premiums (representing a quarter or more of costs) paid directly to and set by insurers. These premium rates could vary from carrier to carrier but would have to be the same for all policyholders of any one carrier. The larger part of an insurer's revenue would be pro-

vided from the central fund based, not on actual claims, but on the risk characteristics of the insurer's enrollees. The risk adjustment factors included age, gender, region, prior year health cost, disability status, and mortality rate. This risk adjustment program was criticized as too complex and too difficult to administer. As an alternative, it was argued that selection could be sufficiently contained by having each carrier set what it felt was an adequate single community rate for individuals under age 65, the chronically ill, and mentally handicapped children. A carrier would be required to charge everyone this basic community rate. Additional revenue at fixed rates would be provided from the central fund for those over 65, the chronically ill or mentally handicapped children. Currently, study of risk adjustment methodology continues to be actively pursued in the Netherlands, but how it may be actually applied remains uncertain.

Conclusion

The basic health care structure in the Netherlands has not changed significantly from its pre-reform environment and further transition steps are officially on hold until 1996. In fact, it now appears likely that the reform approach embodied in the initial proposal and a subsequent modification will never be implemented. Thus, the reasonable hopes of several years ago that by this time the Netherlands might be a valuable source of emerging risk adjustment experience have not been realized.

CONCLUSION

There are few operating models of risk adjustment. There is value in exploring existing models, such as the New York state model, for lessons to be learned. It is also appropriate to review what has been done so far on risk adjustment in other countries. Many states have already addressed risk adjustment in their state initiatives.

Risk adjustment in New York was intended to counteract existing risk differentials based on age, sex, and health status. It could be viewed as a financial mechanism to facilitate community rating. While the ultimate impact of this model is still to be determined, the model illustrates that a risk adjustment mechanism can be implemented fairly quickly and easily, without significant additional administrative costs.

While it appears that the approach in New York is working, in retrospect, many things could have been done differently. The process could have allowed for more industry participation and support. Also, the process could have sought a greater degree of actuarial input from professional associations and could have allowed more time for implementation. Incremental change, such as allowing the law to take effect upon renewal, rather than a fixed date (April 1, 1993) might have smoothed, although extended, the transition. Also, there are likely to be legal challenges to risk adjustment. Thus, the legislation clearly should have addressed the ERISA issue.

Although it is a only partial implementation of managed competition, the California HIPC is an interesting model that will continue to contribute to the discussion of health care reform. To date, there has been no agreement on a risk adjustment method nor any decision on whether risk adjustment is necessary. This may indicate that the legislation needs to call specifically for the use of a risk adjustment method.

In summary, the New York model shows that it is possible to design and implement a system fairly quickly. The California experience shows that if legislation does not mandate risk adjustment, it is less likely to evolve voluntarily. Experience in the Netherlands points out the hazards of trying to implement a system that lacks consensus, and that is complex and difficult to administer. These factors will be critical to the acceptance of any system adopted.

Risk adjustment is necessary under a reformed health care environment. Without risk adjustment methods, rating structures being considered in health reform proposals are likely to provide incentives to carriers to avoid high-risk individuals in order to maintain the most competitive premiums, and individuals will continue to face premium or contribution choices that reflect risk selection rather than medical and administrative efficiency. The American Academy of Actuaries considers risk adjustment a necessity if rating restrictions do not allow up-front matching of premiums or contributions with the relative risk factors of the purchasers.

APPENDIX 1

As of July, 1994

Table A. Small Group Market

State		Rating Restrictions			Reinsurance
	Group Size	Rating Band	Demographic limits	Geographic Factors	
Alaska	2-25	2.08:1	Outside Band	N/A	Mandatory Not Operational
Arizona	3-40	4:1	Inside Band	Inside Band	Voluntary Not Operational
Arkansas	1-25	1.67:1 In Class 2:1 Overall	Outside Band	N/A	Voluntary
California	3-50	7/1/93 1.5:1 7/1/96 1.22:1	Age Outside Band Specified Age Bands	Lim. # = 9 Cannot use geographic regions smaller than 3-digit zip codes within a county.	Voluntary Not Operational
Colorado	1-25	Renewal Increase Limits Only	N/A	N/A	Voluntary Not Operational
Connecticut	1-25	10/1/93 1.35:1 7/1/94 1.2:1 7/1/95 1:1	Outside Band	N/A	Mandatory Operational
Delaware	1-25	2.08:1 In Class 2.5:1 Overall	Outside Band Gender /Area Combined Limit Size limited to 20% variance	Gender/ Area Combined 10% Variance	Voluntary Not Operational
Florida - renewals until 1/1/95	1-25	1.67:1 In Class 2:1 Overall	Outside Band	N/A	Voluntary
Florida New sales @ 1/1/94 Renewals @ 1/1/95	1-50	1:1	Outside Band Specified Age Bands	County Groupings	Voluntary Operational
Georgia	1-50 N/A to True Ass'ns	Average Rate= 1.33 1.67:1	Outside Band	N/A	No
Idaho	2-49	1.67:1 In Class 2:1 Overall	Specified Age Bands Age/Gender Only	Need Approval	Voluntary Operational
Illinois	3-25	1.67:1 In Class 2:1 Overall	Outside Band	N/A	No
Indiana	3-25	2.08:1	Outside Band	N/A	No

Table A. Small Group Market

State		Rating Restrictions			Reinsurance
	Group Size	Rating Band	Demographic limits	Geographic Factors	
Iowa	2-25	1.67:1 In Class 2:1 Overall	Outside Band, Gender requires approval Size limited to 20% variance	N/A	Voluntary Operational
Kansas	* 50	1.67:1 In Class 2:1 Overall	Outside Band	N/A	Mandatory Operational
Louisiana	3-35	1.5:1 In Class 1.8:1 Overall	Outside Band	N/A	No
Maine	1-24	7/15/93 3:1 7/15/94 1.99:1 7/15/95 1.5:1 7/15/96 1.22:1 7/15/97 1:1	Inside Band	Inside Band	Voluntary
Maryland	2-50	7/1/94 3:1 7/1/95 2.33:1 7/1/96 1.99:1 7/1/97 1.38:1	Age/Area Only Inside Band	4 Specified Areas	Voluntary Not Operational
Massachusetts	1-25	2:1	Inside Band	Outside Band/7 Specified Areas 1.5:1	Mandatory; BCBS & HMOs are exempt. Operational
Minnesota	2-29	1.67:1	Age +- 50% Outside Band Unisex	1.20:1 Limit	Mandatory Operational
Missouri	3-25	1.67:1 In Class 2:1 Overall	Outside Band	N/A	Mandatory. After 3 years carrier may apply to opt out.
Montana	3-25	1.67:1 In Class 2:1 Overall	Outside Band No gender difference allowed	N/A	Mandatory Not Operational
Nebraska	3-25	1.67:1 In Class 2:1 Overall	Outside Band	N/A	No
New Hampshire	2-50	1.86:1 Maternity is Community Rated	Outside Band	N/A	No
New Jersey **	2-49	1/1/94 3:1 1/1/96 2:1 1/1/97 1:1	Inside Band	Inside Band	Voluntary Operational
New Mexico	2-50	1.67:1 In Class 2:1 Overall	Outside Band	N/A	No
New York	3-50 ***	1:1	Not Allowed	County or Larger	Mandatory Operational

Table A. Small Group Market

State		Rating Restrictions			Reinsurance
	Group Size	Rating Band	Demographic limits	Geographic Factors	
North Carolina	2-49	1.67:1 In Class 1.88:1 Overall	Outside Band	N/A	Voluntary Operational
North Dakota	1-25	1.5:1 In Class 1.73:1 Overall	Outside Band	N/A	Mandatory
Ohio	2-50	2.08:1	Outside Band	N/A	Voluntary Not Operational
Oklahoma	1-25	1.67:1 In Class 2:1 Overall	Outside Band	N/A	No
Oregon	3-25	1.99:1	Inside Band	Outside Band Specified Areas	Voluntary Operational
Rhode Island	1-50	1.67:1 In Class 2:1 Overall	Outside Band	N/A	Voluntary Not Operational
South Carolina	2-50	1.67:1 In Class 2:1 Overall	Outside Band	N/A	No
South Dakota	1-25	1.67:1 In Class 2:1 Overall	Outside Band	N/A	No
Tennessee	3-25	2.08:1 In Class 2.6:1 Overall	Outside Band	N/A	Voluntary Not Operational
Texas	3-50	1.67:1 In Class 2:1 Overall	Outside Band	N/A	Voluntary Not Operational
Vermont	1-49	1.5:1	Inside Band	Inside Band	Mandatory; BCBS is exempt Not Operational
Virginia ****	2-49	1.5:1	Outside Band	Outside Band	No
West Virginia	2-60	1.67:1 In Class 2:1 Overall	Outside Band	N/A	No
Wisconsin	2-25	2.08:1	Outside Band	N/A	No
Wyoming	2-25	1.67:1 in Class 2:1 Overall	Outside Band	N/A	Mandatory Operational

* All employers covered through an association or trust with some employee or member units of 50 or fewer
** Reflects amendment April 1994
*** Also applies to sole proprietors and 2 life groups unless carrier offers individual insurance in NY
**** Applies to state legislated plans only

As of February, 1994

Table B. Individual Market.

State & Year of Statute	Individual Market		
	Rating Restrictions		Reinsurance
	Band	Factors	
Louisiana 1991, 1993	1.2:1	Experience, health status or duration; demographics and specified case characteristics.	
Maine before 1993	None	Family composition.	
Minnesota 1992	1.67:1	Health status, claims experience or duration; limited adjustments for age and geographic region outside this band.	
New Jersey 1992, 1993	None	Family composition	Has a retrospective loss sharing program for all carriers except those who maintain a sufficient market share of individual members and elect not to seek reimbursement for losses
New York 1992	None	Family composition; geographic area.	Provides a risk adjustment mechanism combined with Small Group experience, including a mandatory reinsurance program for specified high cost medical conditions.
South Carolina 1991	1.4:1	NAIC health status or claims experience	
Vermont 1992	1.5:1	One or more factors approved by the Commissioner.	Voluntary. Authorizes commercial carriers to establish a reinsurance pool; BCBS of vermont and nonprofit HMOs are not required to participate.
Washington	None	Family composition and geographic area.	

Three states, which also have guaranteed issue provisions, have reinsurance to help carriers bear the risk of accepting all individuals.

APPENDIX 2

States with Active Reinsurance Pools as of January 1994.

State	Start Date	Number of Carriers	Number of Carriers with People in the Pool	Number of People in the Pool	Premiums Paid In (since inception)	Paid Claims (since inception)
CT*+	5/91	46	26	7,173	$34,319,381	$28,883,594
FL	1/93	43	19	666	817,831	358,914
IA	7/93	47	1	1	1,661	0
KS*	9/93	71	1	1	48	0
MA**	4/92	44	10	199	704,616	173,962
MN*	7/93	49	5	49	33,622	0
NC	9/92	55	23	309	507,771	18,580
NY*	4/93	75	75	??	??	0
OR	6/93	27	1	23	25,370	0
WY*	6/93	51	1	8	7,533	0

Source: The Travelers; State of New York

* Indicates a mandatory reinsurance pool

** Mandatory for commercial carriers only

\+ Connecticut's reinsurance program has been in place nearly 3 years and, consequently, has the largest pool and the largest amount of premiums paid in and claims paid out. The reinsurance pool is nonprofit and was created explicitly to protect carriers from insuring a disproportionate share of high-risk individuals or groups. In 1992 the assessment was approximately 0.4% of premiums charged to small employers. The actuarial committee for the Connecticut pool has recently estimated the pool's 1993 incurred loss ratio at 107%.

APPENDIX 3

Risk Adjustment & State Initiatives

	CALIFORNIA	FLORIDA	MINNESOTA	NORTH CAROLINA	TEXAS	WASHINGTON
Participation	**Voluntary**	**Voluntary**	**Voluntary**	**Voluntary**	**Voluntary**	**Voluntary**
Risk Adjustment or Reinsurance Process	Prospective risk adjustment mechanism under development. Reinsurance available for carriers in small group market. (Not operational.)	As yet, no provisions for risk adjustment yet. Reinsurance program available for small group carriers.	No risk adjustment methodology specified. MEIP to use retrospective adjustment. Reinsurance program available for small group carriers.	Risk adjustment methodology to be developed. Reinsurance program available for small group carriers.	No provisions for risk adjustment yet. Reinsurance program available for small group carriers. (Not operational.)	Risk adjustment methodology to be developed.
Rating	Industry/occupation and gender not allowed. Family structure and geography allowed. While California law permits a small health adjustment (0.8 to 1.2), HIPC does not allow this.	Age, gender, geography, family structure, and tobacco use allowed.	Limited variations on basis of health, claims, industry, duration, geography, and age allowed. Applies to individual market and 2-29 employee firms.	Age, gender, family structure, and geography allowed. Industry/occupation, health and claims phased out. Different rate for alliance allowed.	Age, gender, family structure, industry/occupation, number of employees, and geography allowed. Variation on basis of health, industry, and claims limited.	Geography and family structure. Health Services Commission sets cap on community rated premium.