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Risk equalization, competition, and choice: A preliminary assessment of the 1993 German health reforms

Summary

Risk adjustment and/or equalization has become a central issue in the health care reform initiatives of many countries, including Germany, Switzerland, the Netherlands, Israel, the U. K. and the U. S. Risk adjustment is widely seen as essential to prevent cream skimming and to promote fair competition. In this vein, the 1993 German health reforms require implementation of a riskbased contribution rate equalization scheme by 1996. This paper provides a preliminary assessment of the risk equalization methodology currently proposed for Germany. Recent research in the U. S. and the Netherlands is used to examine whether the socio-demographic factors being used in Germany are likely to be effective. Research findings from both countries indicate that risk formulas based only on socio-demographic factors predict only one-tenth to one-fourth of the maximum possible explainable variance. If the current formula is used, sickness funds with higher concentrations of high risk groups are likely to be substantially under compensated, and to face serious enrollment and financial problems. The authors conclude that improvements in the formula through measures based on diagnosis and prior hospitalization, disability status, and regional variations in utilization and cost are urgently needed before the system is implemented. The German experience is also relevant to other countries that have relied to date on socio-demographic measures for risk adjustment.

This paper provides a preliminary assessment of the risk equalization methodology in the 1993 German health reforms, and of consequences of its possible use for the reform objectives. The legislation requires implementation of a risk-based contribution rate equalization scheme by 1996. When implemented, sickness funds with higher risk structures will be compensated by those that have lower risk structures. The objectives are to reduce differences in contribution rates, increase competition, and, by January 1997, increase choice among funds for German workers. The purpose here is to critically examine whether the socio-demographic factors proposed for the rate equalization scheme are likely to be effective in promoting risk equalization. Since both the United States and the Netherlands have recently attempted or undertaken similar reforms, and both have produced considerable resarch on risk equalization, this assessment is based on a comparative approach to health policy analysis.

Background

In Germany, increases in health care costs have been a major focus of health reform efforts since the early "70"s, though Germany has enjoyed some success in restraining the inflation of health care costs relative to other countries[1]. Among German citizens and policy makers, much of this concern has been focused on increased contribution rates to the sickness funds[2]. In the process, Germans have been especially disturbed by evidence that the contribution rates among sickness funds vary by as much as 100 percent.

Figure 1 summarizes the range of variation in contribution rates among the five major types of sickness funds. In Germany, contribution rates to sickness funds are based on a percentage of the employee's gross wages, up to the nationally defined income ceiling (about $ 27,000 in 1990), and are

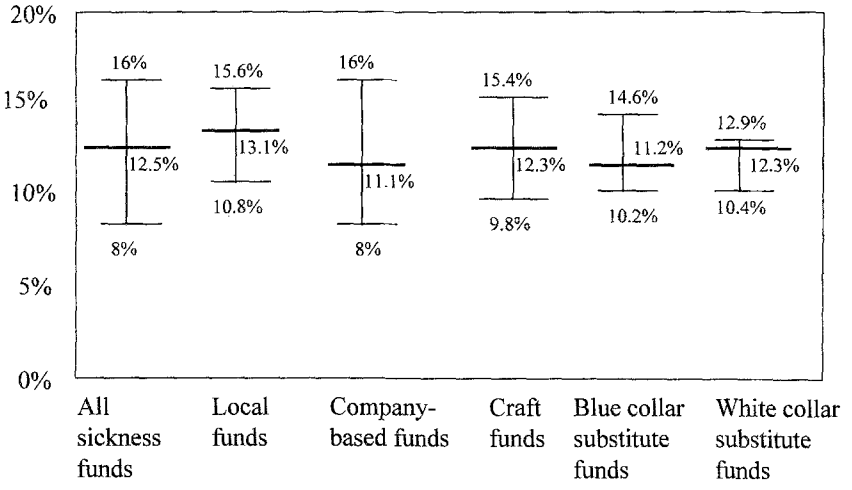

Figure 1. *Varying contribution rates among German sickness funds, 1990. Average, highest, and lowest rates, as percent of gross wages under $27,000. (Source: Sachverständigenrat für die Konzertierte Aktion im Gesundheitswesen, 1991).*

shared equally between employer and employee. But, as Figure 1 shows, contribution rates are far from equal. Rates for local, company-based, and craft funds are, on average, higher than for both types of substitute funds. And within fund types, especially for the company-based and craft funds, rates vary even more substantially. The result is that many Germans pay substantially more for health coverage, but receive essentially the same benefits as those who pay less.

These considerable differences in contribution rates create substantial economic problems, of course, but they also conflict with the principle of solidarity. In the German view, solidarity means that the costs and benefits of health care should be broadly shared among all the groups and members of society. Solidarity includes not only the citizen's rights to health care, but also recognizes that this right depends on a complex series of obligations from employees, employers, physicians, other providers, insurors, governments, and other parties. These rights and obligations are clearly reflected in the German health insurance law, in the delegation of responsibility for administration of the system to physician associations, sickness funds, and other groups, in the process for negotiating health policy changes, and in the method of calculating contributions[3–5]. Solidarity is the "cement" on which the structure is built, and which binds it together[6]. As Knox suggests, the "idea of solidarity requires fairness", and when some Germans are paying considerably more of their income for a standard package of health benefits, their sense of fairness is violated[7].

The salience of these issues has, of course, led policy makers and researchers to focus on why expenditures and contribution rates vary systematically between regions, and between and within various types of funds. Regional variations in physician's practice patterns, in hospital costs, and in utilization rates certainly account for some of these differences[8]. Differences in efficiency in the administration of the various funds is also cited as an important source of variations in expenditure and contribution rates[9]. There is, however, increasing evidence and a growing consensus that differences in the risk structures in various funds account for a very substantial portion of the difference between funds in expenditures.

In this respect, a 1988 national survey of sickness fund members indicated that members of local funds and company-based funds have considerably higher rates of chronic illnesses than members of substitute funds or the privately insured, as well as lower perceived health status[10]. Further, community and craft funds have been found to include approximately twice as many very high risk groups, including unemployed workers, younger disabled workers, and workers receiving rehabilitation services. Health expenditures were especially high among the disabled and welfare recipients[11]. Increased enrollment from the chronically ill, the disabled, the unemployed, and welfare recipients is in turn associated with increases in utilization and expenditure. In 1985, local-based funds used 33 percent more hospital days per 100 members than substitute funds, and spent 32 percent more on hospital care, a result of long-term changes in fund membership between 1965 and 1985[12]. Clearly, more research is needed on risk groups, not only on the additional risks associated with chronic illness and disability, but also on the risks and costs associated with unemployment and welfare enrollment, since both rates are especially high in the East German states.

In our view, prior to the 1993 reforms, the distribution of risk groups among sickness funds has been the product of the relationship between social stratification and insurance membership in Germany, and between social stratification and health status. A conceptual model, which was developed in our previous research on Germany and the United States, visually depicts these relationships

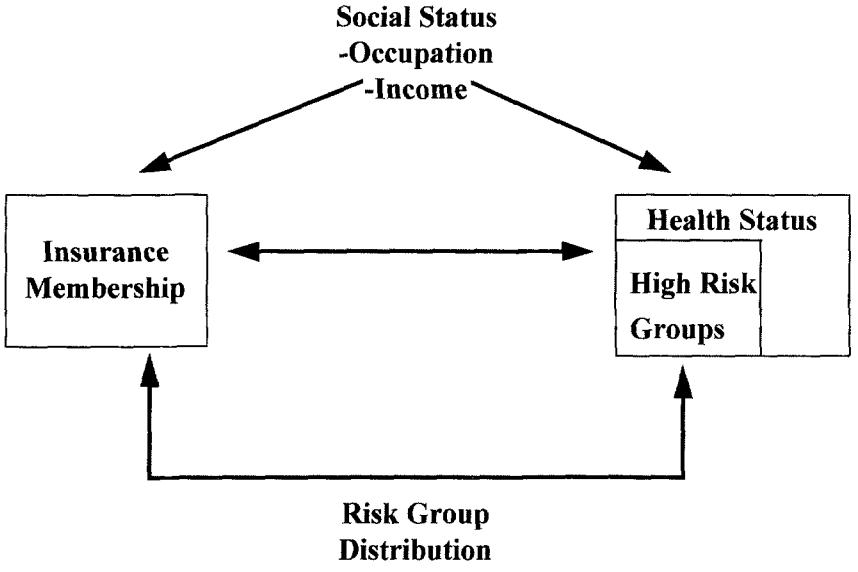

Figure 2. *Model for research on risk group distribution.*

and summarizes the findings of this research[13]. Figure 2 suggests, in fact, that the concentration of very high risk groups in some funds, the very issue addressed in the 1993 reforms, has been primarily due to the following relationships:

Social status and health status

Occupation, income, and education have been shown to be important factors in health status and in the risk of disease through many epidemiological studies, and in our own research[14,15,13].

Social status and insurance membership

The German health insurance system is occupationally based, and thus is a stratified system in which health insurance affiliation is substantially influenced by social class membership. Manual workers and other employees whose earnings are below a ceiling established by the German parliament have been mandated to be insured in one of the statutory sickness funds (RVO funds). On the other hand, white-collar employees, civil servants, and those earning above the ceiling have been entitled to choose a substitute fund or private insurance[16].

Insurance membership, health status, and risk

This relationship between social status and both insurance membership and health status leads in turn to the principal concern of this paper: the relationship between insurance status, health status, and risk. Survey data from the German-American-Health Survey[17] on perceived health status, psychological distress, and level of physical symptoms was used to identify high risk and very high risk groups. (For details on methodology, see[13]). The probability of RVO members (enrolled in local, company, or craft funds) belonging to the high risk group was 1.6 higher than persons in the substitute funds, or those privately insured. The probability of belonging to the very high risk group was about twice as high for RVO members[13]. These findings are consistent with research cited earlier, and with other studies[18–22].

One factor which is not depicted here, and not easy to measure, is competition among the sickness funds to attract lower risk memberships. German citizens whose occupation and income exempt them from mandatory membership in one of the RVO funds can, of course, elect to keep their membership there, rather than enroll in a substitute fund or with a private insurer. Though measures of competition or its effects have not been developed, many researchers have suggested that the perceived higher status and benefits of the substitute funds have attracted more affluent, higher educated individuals who face lower risks[23–26]. In this view, competition and self-selection increase the segregation of risk groups that is already inherent in an insurance system where sickness fund membership is primarily based on occupational status and income.

In fact, the role of competition in health care reform has been a central issue among researchers, policy makers, and political parties in Germany for more than a decade. On the one hand, some researchers and policy makers have long argued for market-oriented premiums for elective benefits beyond a basic benefit package and increased competition and choice[27–30]. On the other, critics of these market-oriented reform proposals have taken the position that effective cost containment depends primarily on global budgeting, and that increased competition and individual responsibility for paying for their own risks undermines the principle of solidarity on which the German system is built[31,32].

While the effectiveness of competition in reducing cost is not the focus of this paper, the empirical support for this assumption in the German reforms is, at best, mixed. In the U.S., where fierce competition between managed care plans and other insurors has been increasingly common, competition has, in our view, had little effect on aggregate health expenditures[12].

Risk equalization in the 1993 German health reform

Health care reform in Germany has been treated as a long-term legislative process with at least eight separate pieces of legislation passed since 1977. The 1993 reforms, however, are widely regarded as initiating the most far-reaching changes since the system's creation in 1893. In this legislation, global budgeting for physicians and hospitals was strengthened and was extended to the dental and pharmaceutical sector; the immediate objective was to save more than 10 billion DM in the first year alone. The legislation also addresses longer term structural changes: to reduce the supply of physicians and to restrain the excessive use of technical services, to reduce hospital admissions and stays through a prospective budgeting DRG-like system, and to promote greater competition among sickness funds. More detailed descriptions of these reforms and preliminary assessment of their effects on cost-containment are available in several sources[33–36].

The 1993 reforms to increase competition among the sickness funds and to expand choice involve several stages. The first and key stage is the rate equalization process, which is now underway. The legislation explicitly recognizes that some portion of the differences in contribution rates among sickness funds is due to differences in risk structures. These differences are regarded as a barrier to fair competition among the sickness funds and the source of serious inequities for their membership. Accordingly, the legislation proposes the development of a risk equalization methodology based on four socio-demographic factors that are associated with health risk: 1) age, 2) sex, 3) income (the individual sickness funds' payroll tax base), and 4) family size (number of insured dependents). Data on these factors are available for all sickness funds.

In the implementation process, these four socio-demographic risk factors are being used to identify variations in the risk structures of the various sickness funds, and to transfer resources between funds to compensate for differences in these risk structures. These monetary transfers are expected to be used by funds with high contribution rates to reduce their rates and, thus, become more competitive. The objective here is not to eliminate all differences in contribution rates, but to eliminate those differences due to variations in risk structure. When this risk equalization process is fully implemented, differences in contribution rates are primarily expected to reflect differences in administrative efficiency.

Competition for members among the sickness funds will begin when the risk equalization process is fully implemented. Under current plans, in 1996, most employees and wage earners will become eligible to choose from all the sickness funds available in their region, and funds will be able to compete more broadly for members. Under this system of "managed competition", risk equalization is seen as the key to promoting fair and effective competition. Sickness funds will no longer have an incentive to practice adverse selection, but will have powerful incentives to improve their efficiency, lower costs and contribution rates even further, improve service, and attract more members. At the same time, these changes are expected to improve equity and choice for German citizens. The very substantial differences in contribution rates should be reduced, choices will be expanded for many blue collar and low income workers, and service and benefits should improve, as sickness funds compete for their business[37,7,32]. A more detailed description and assessment of the 1993 reforms can be found in a recent book by Wassener[38].

Clearly, the success of the 1993 reforms in equalizing risks, and contribution rates, and in promoting fair and efficient competition depends on how well the risk equalization formula works. If it accounts for all or even most of the variation in risk structures, these objectives are likely to be achieved. If it does not, however, funds that include very high risk groups are likely to be undercompensated, they will not be able to reduce contribution rates, and they will not be able to compete effectively. In some instances, funds could face substantial financial crises and, perhaps, fail altogether. Fortunately, though there has not been much large scale empirical research in Gemany on the effectiveness of risk equalization formulas, extensive research has ben conducted in both the U.S. and in the Netherlands on this critical issue.

Comparative research on risk selection and equalization

Risk section and risk equalization, or adjustment, have also been key elements in health reform initiatives in the United States and in the Netherlands. In these countries, as in Germany, health reform has focused on containing costs through increasing managed competition and preserving equity through risk adjusted payments to insurers. The increasing trend toward managed care and capitation in the U.S. has raised substantial concerns about risk selection, and especially about "cream skimming" among both researchers and policy makers. Private insurors paying claims on a fee-for-service basis have long used "experience rating" to identify and enroll low risk groups, and to avoid high risk groups. Under capitated managed care systems, the economic incentives to enroll low risk and avoid

high risk groups are increased even more if health plans receive the same premiums for all individuals who are enrolled. As enrollments in HMO's and other managed care plans have increased, concerns about the consequences of capitation for risk segregation, and for the increasing proportion of uninsured and underinsured individuals has grown[39–41].

On the other hand, since capitated managed care programs have shown that they can achieve substantial cost savings, especially through reduction of hospital use, managed care has become a significant component of a variety of health reform initiatives, including those for Medicare and Medicaid, for the Clinton Health Plan, and for various Congressional and state inititatives. In the process, researchers and policy makers have become concerned to insure that the savings achieved are not won at the expense of increased cream skimming and risk segregation. These concerns have led to a very extensive research effort to develop an effective methodology for risk adjustment[41–46].

Health reform in the Netherlands has moved even more rapidly toward capitation and managed competition. In 1988, the Dutch government and parliament decided to institute a substantial reorganization of the insurance system. Under this approach, all of the insured receive a subsidy toward their compulsory health insurance premiums through one of the competing insurers. This subsidy goes directly from the Central Fund to the insurer chosen by the individual. To insure that sickness funds will not have an incentive to attract low risk individuals, the legislation requires that the subsidy be a risk-adjusted capitation payment. This payment is intended to equal the predicted per capita *costs* of individuals in similar risk groups, minus a fixed average *cost* associated with administration of the system. The twenty-six sickness funds are also allowed to compete nation-wide for membership, and to collect a community-based premium from the insured that reflects their actual administrative *costs*. The objectives of this reform, like that in Germany, are to increase choice for citizens and to increase competition between sickness funds on the basis of efficiency, rather than risk selection. Since risk adjustment is also the key to the effective implementation of the Dutch system, health reform there has also led to extensive research on risk adjustment[47–50].

The purpose here is to critically examine whether the socio-demographic factors proposed for the German reforms are likely to be effective in promoting risk equalization among the German sickness funds and, thus, in reducing differences in contribution rates. Research in both the U.S. and the Netherlands has examined the role of several factors in explaining variations in *costs* between risk groups, including objective and subjective measures of health status, measures of chronic illness and disability, and measures of previous utilization or prior use. In this review of U.S. and Dutch research, the emphasis is on studies which 1) are based on representative samples of large population groups, and 2) which systematically examine the proportion of health care expenditures that are explained by various socio-demographic, health status, and prior use factors. Specific findings are discussed from the work of Newhouse in the U.S.[42,46] and van de Ven and van Vliet in the Netherlands[47,48].

Risk adjustment research in the United States

Research on risk adjustment in the United States has been largely focused on the performance of the method used by the Medicare program to pay health maintenance organizations (HMO's) who enroll Medicare participants. This formula, the adjusted average per capita *cost* (AAPCC), provides a method to adjust the amount paid per enrollee to HMO's on the basis of five socio-demographic factors: age, sex, welfare status, institutional status (nursing home residence), and basis for Medicare eligibility (over 65 years of age, disabled, or end stage renal disease). After the formula was established and applied, many HMO's and a number of health service researchers raised several concerns: 1) that the socio-demographic factors chosen were too crude or general to be of much use in reimbursing HMO's, and 2) that the socio-demographic risk adjusters included explained only a very small percentage of the variance in total expenditures[42]. In short, there was substantial concerns that the AAPCC methodology did not meet its primary objective of compensating HMO's for substantial variations in the risk structure of their Medicare enrollees.

These concerns led Newhouse and his colleagues to test the effectiveness of the AAPCC socio-demographic adjusters and other measures of health status and prior utilization on a representative sample for whom sound measures of these predictors, and of health services expenditures were available. Data for this test are taken from the Rand Health Insurance Experiment, which was conducted in six areas of the U.S. during the period 1974–1982. In this experiment, families from these six regions were randomly chosen, and randomly assigned to a three or five year participation period in various insurance plans. Comprehensive data was collected on objective health status, subjective health status, utilization of outpatient and inpatient services, and expenditures for approximately 4000 individuals 14–64 years old who were

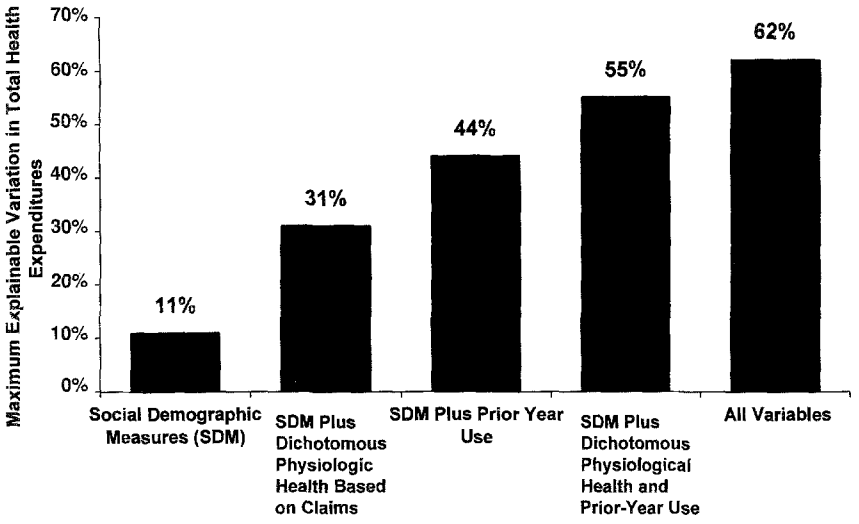

Figure 3. *Percentage of maximum explainable variation in health care expenditures yielded by alternative models in U.S. research. SDM variables include age, sex, region, and welfare status (AFDC).*

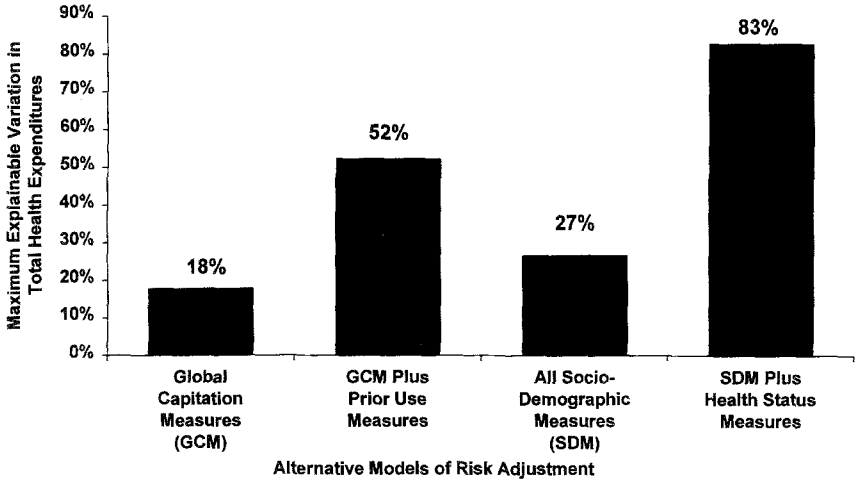

Figure 4. *Percentage of maximum explainable variation yielded by alternative models in Dutch research. GCM variables include age, sex region, and insurance coverage. SDM variables include GCM plus employment, family size, SES, body weight, urban residence, availability of health facilities, and additional insurance.GCM measures applied to 14,000 privately insured; SDM measures applied to 20,000 Health Interview Survey respondents.*

enrolled in the experiment. (For details on methodology, see[51,52].)

Figure 3, which is adapted from this research, compares the percentage of the maximum explainable variation in health care expenditures in this experiment which is predicted by various socio-demographic, health status, and prior use measures. In this research, as in other studies, the maximum variance that is explainable (the maximum explainable R^2) is estimated at 14.5 percent of the total variance. This figure is, in fact, equal to the between-person variance as a percent of the total variance (maximum R^2). Though this figure is much less than 100%, it represents the portion of the variance which is due to systematic differences between individuals. This variance does not include, of course, random or unexpected life events or unforeseen and unpredictable differences in treatment, outcome, or price of health services[42]. In the comparisons made in Figure 4 and Figure 5 as well, it is important to recognize that the percentage of the maximum explainable variance predicted by any specific measure is much higher than the percentage of the total variance accounted for by that measure. For example, a measure which accounts for 11% of the maximum explainable variance accounts for only 1.6% of the total variance.

Figure 3 indicates that socio-demographic factors alone account for only 11% of the maximum explainable variation in total expenditure. When objective measures of health status, based on physical examinations are included with the AAPCC (socio-demographic measures) almost 30% of the maximum explainable variance is predicted. Similar results are obtained when subjective measures of health status are added (32%). Measures of prior year use are even more effective, when coupled with socio-demographic measures (44%), and when socio-demographic, prior use, and objective health status measures are used, 55% of the explainable variance is predicted. When all four measures, including subjective health status, are included, 62%, approximately two-thirds of the maximum explainable variance, is predicted.

Risk adjustment research in the Netherlands

Similar findings have been reported by Van Vliet and Van de Ven[47] in the Netherlands, as summarized in Figure 4. This figure summarizes research based on two different sources. The first is claims data for

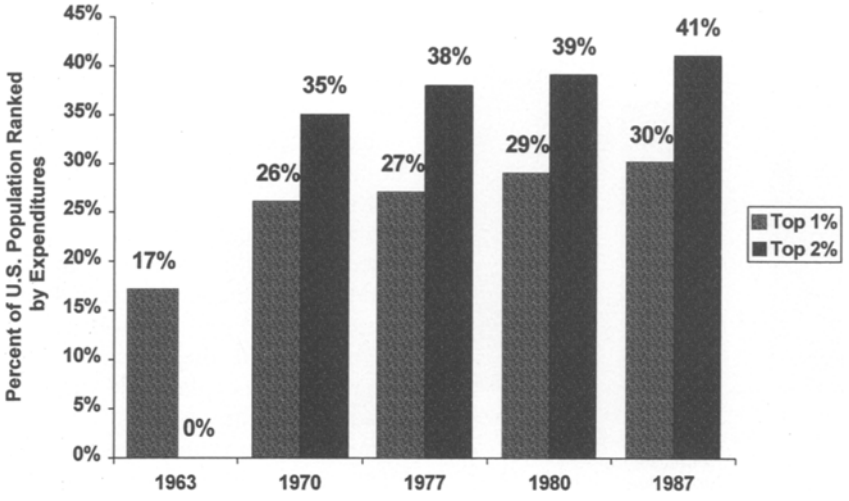

Figure 5. *Distribution of total health expenditures for the top one and two percent of U.S. spenders, selected years 1963–1987.*

14,000 individuals insured with the largest private health insurance organization in the Netherlands in the period 1976–1980, for whom self reported health status information was available. Data from this study were used to test six alternative models or capitation formulas. The second source is the Health Interview Survey conducted in 1981–1982 by the Central Bureau of Statistics in the Netherlands. This study included a representative sample of 20,000 non-institutionalized members of the Dutch population. Data from this survey was used to test seven models, and was especially useful in examining models that included measures of chronic conditions, physical impairments, and self-reported health status. In both data sources, information was available for the entire range of ages included in the population.

Figure 4 summarizes the major findings reported by Van Vliet and Van de Ven[47]. In all cases, results were consistent with those reported by Newhouse and colleagues in the U.S.

– The maximum explainable variance (R^2) was estimated to be 13.8%, as compared to 14.5% in the U.S. studies. Elsewhere, Van Vliet has argued that improvements in methodology will permit as much as 20% of the variance in total expenses to be explained by measures of individual characteristics[53]. Research summarized here is based on the 13.8% figure.

– Socio-demographic models consistently predicted 1/5 to 1/4 of the maximum explainable variance. The model used by the Dutch government, the global capitation formula, which included only age, sex, insurance status, and region, predicted less than 1/5 of the variance.

– Models which also included information on prior use of health services, based on claims data available to private insurors, predicted more than half (55%) of the maximum explainable variance.

– Risk adjustment measures that included measures of chronic health conditions, physical impairments, and self-perceived health status, as well as a wide range of socio-demographic measures, predicted about three-fourths of the maximum explainable variance.

– The authors conclude that a risk adjustment or equalization formula based only on socio-demographic factors cannot effectively compensate for very large differences between the risk structures of various funds in the Dutch system, and would still permit very substantial variations in profit and losses based on variation in actual risk distribution.

Research on the concentration of health expenditures

Data on the concentration of health expenditures among the top one to two percent of all individuals who had any expendures in a given year suggest that the most critical issue is to identify the relatively small proportion of individuals who are at highest risk. Figure 5 summarizes research in the U.S. on the concentration of health expenditures since 1963. Data presented here are taken from representative sample surveys of the U.S. population in selected years, conducted by various federal agencies and nationally recognized survey research centers.

As Figure 5 indicates, the concentration of health expenditures among the top one percent of all spenders has increased from 17% in 1963 to 30% in 1987; the top two percent of all spenders were responsible for 41% of all expenditures in 1987. In contrast, the bottom 50% of all spenders spent only 3% of the total[54]. Similar research is now underway in the Netherlands where estimates, based only on hospital spending, indicate that the top 1% of all spenders used 42% of total hospital expenditures[48]. The most promising approach for identifying these very high risk groups has been developed by Ash and her colleagues in the U.S.[43]. In this research, Medicare data was used to identify clinically similar DRGs (diagnostic groups) which, in turn, were classified into nine diagnostic cost groups (DCG). The 2.3% of individuals with very high cost in the base year (DCG 6–8: those hospitalized for diabetes, cancer,

chronic obstructive pulmonary disease, heart failure, etc.) had average cost in the following year that were 3.5 times higher than the average cost of the total Medicare study population. Individuals hospitalized for renal failure (DCG 9) experienced average *costs* 11.5 times higher than the study group average[43]. Similar research in the Netherlands indicates that for 1% of persons with the highest cost in the base year, actual expenditures in the following year are five times higher than predicted costs based on age and sex alone[48]. This research group is also examing the use of multy-year DCG adjusters. The similarity between results in the U.S. and the Netherlands, and the very large concentration of expenditures associated with these small, very high risk groups, suggest that this issue is a critical one for implementing the German health reforms.

Discussion and conclusions

This review of the 1993 German reforms to promote increased competition and choice, and of comparative research on risk adjustment methodology suggests several important conclusions.

– The German objective to use risk equalization as a means of promoting fair managed competition among sickness funds is strongly supported by both the U.S. and the Dutch experience. Without effective risk adjustment, insurors have powerful economic incentives to engage in cream skimming, that is, attracting and enrolling low risk groups and avoiding high risk groups.
– Research on risk adjustment in both the U.S. and the Netherlands suggests that the current German formula for risk equalization will not identify and compensate sickness funds for most of the variation in risks. In both countries, risk adjustment formulas based only on socio-demographic factors have been shown to predict only one-tenth to one-fourth of the maximum possible explainable variance.
– If the current German formula is used, sickness funds that include higher proportions of chronically ill, the disabled, and other high risk groups, are likely to be substantially undercompensated for their actual risk structures. In these instances, their expenditures and contribution rates are not likely to be substantially reduced, and they will not be able to effectively compete with other funds on the basis of their efficiency. In the worst case, some funds may lose very substantial enrollment as German citizens choose less expensive insurors, and may face serious problems in simply surviving. In short, the current German formula is not likely to achieve the objectives established in the 1993 legislation.
– These conclusions underline the importance of not proceeding with the 1993 reforms in Germany until the risk equalization methodology is very substantially improved or altered. Fortunately, German researchers and policy makers can rely on the very considerable progress on risk adjustment in both U.S. and Dutch research. While Dutch researchers are more optimistic than U.S. researchers about how much improvement can be achieved, evidence from both countries suggests that the gains can be very substantial. Several measures seem especially promising for improving the risk equalization formula:

- identification of diagnostic cost groups that consistently have high hospital expenditures over several years[43,46].
- identification of recipients of disability benefits and especially of major disabilities associated with intensive use of services and high expenditures[11,48].
- measures of regional variations in the utilization, price, and cost of medical care[48].

The major problem here, of course, is that additional data on prior use and disability status may either not be available from all funds, or will be difficult and time consuming to obtain. At the same time, since use of current socio-demographic measures alone could lead to serious financial problems for some funds, an intensive effort to identify useful measures and a common format for data collection from all sickness funds should be given very high priority.

– Research on the concentration of health expenditures among the top one or two percent of the population is also warranted. Three issues seem especially important here: 1) whether the concentration of expenditures is high and increasing, as in the U.S. and Netherlands, 2) whether the top group is distributed equally among various sickness funds, or whether they are concentrated in certain funds, and 3) whether improved equalization formulas are effective in identifying this very small and expensive group. Dutch researchers have had some success in risk adjustment for very high spenders using multi-year diagnostic cost groups, but have still concluded that prospective mandatory community-rated high risk-pooling is necessary for catastrophic risks[48,55]. While this issue cannot be quickly resolved in Germany, it is important to initiate some research which will address it.
– Research on risk adjustment in Switzerland by Beck and Zweifel also suggests the need to examine the percentage of total expenditures accounted for by those who die during the year. In their research, as in others, those who died during the year accounted for a very high proportion of total annual health expenditures[56].

– If an adequate system for risk equalization can be developed in Germany, it should also contribute to an expanded concept of solidarity. Under the current structure of sickness fund membership, risk sharing is limited to individuals and employers in the same region, craft, or industry. This approach to local or regional risk sharing and solidarity was developed in Germany in 1893 when social life was centered around farms, crafts, small towns, and neighbourhoods. In the modern state, however, which is characterized by national and international enterprises, large metropolitan regions, and substantial mobility, solidarity increasingly has a more inclusive meaning, and risk sharing incrasingly is expanded to include all citizens. In this sense, the 1993 German reforms could be an important step toward a more expanded concept of solidarity. The significance of the risk equalization process for this expanded concept of solidarity suggests, in fact, that the 1993 German health legislation does, indeed, involve a historic reform of the German health insurance system, if it can be successfully implemented. On the other hand, if the reforms are not successfully implemented, the principle of solidarity itself will be very substantially undermined.

Zusammenfassung

Risikostrukturausgleich, Wettbewerb und freie Kassenwahl: Eine vorläufige Beurteilung des deutschen Ausgleichsverfahrens von 1993

In einer Reihe von westlichen Nationen ist der Risikostrukturausgleich zwischen den Krankenkassen ein zentraler Punkt in den Reforminitiativen im Gesundheitswesen geworden. Zu diesen Ländern gehören neben Deutschland und der Schweiz u.a. Grossbritannien, die Niederlande, Israel und die USA. Ein wirksamer Ausgleich wird als wichtige strukturelle Voraussetzung zur Verhinderung systematischer Risikoselektion und zur Sicherstellung eines fairen Wettbewerbs eingestuft. Die vorliegende Arbeit liefert eine vorläufige Beurteilung des in Deutschland berücksichtigten Ausgleichsverfahrens. Die Wirksamkeit des deutschen Ausgleichsmodells wird auf der Basis neuer Studien aus den USA und den Niederlanden beurteilt. Die Forschungsergebnisse zeigen, dass Ausgleichsformeln, die ausschliesslich sozio-demographische Kriterien berücksichtigen, lediglich zwischen 10 und 25% der maximal erklärbaren Varianz der Inanspruchnahmekosten erklären. Damit ist absehbar, dass es bei der Verwendung der bisherigen Formel zu einer mangelnden Kompensation der Kassen mit höherer Risikostruktur kommen wird. Die Autoren ziehen den Schluss, dass die bisherige Ausgleichsformel dringend verbessert werden muss. Dabei sollten diagnostische Faktoren und Krankenhausinanspruchnahme, Behindertenstatus sowie die teilweise erheblichen regionalen Schwankungen der Inanspruchnahme und Kosten einbezogen werden. Die vorliegenden Erkenntnisse sind auch für Versicherungssysteme anderer Nationen mit ähnlichen Ausgleichsmodellen von hoher Bedeutung.

Résumé

Compensation des risques, concurrence et libre choix de caisse: Une analyse provisoire du système de compensation allemand de 1993

Dans un nombre de nations de l'ouest la compensation des risques entre les differences de structure des caisses de maladie est devenue un point central des initiatives de réforme concernant les systèmes des santé. De ces pays font par l'Allemagne, la Grande Bretagne, les Pays-Bas, l'Israèl, la Suisse et les Etats-Unis. Une compensation efficace est considérée étant une condition structurelle, afin d'éviter une sélection de risques systématique et de garantir une concurrence loyale. L'ètude dont il s'agit fourni une appreciation provisoire du procédé de compensation allemand proposé en 1993. L'éfficacité du modèle de compensation allemand sera évalué sur la base d'études récentes effectuées aux Etats-Unis et auc Pays-Bas. Les données scientifiques démontrent que les formules de compensation retenant pas compteque des critères socio-démographiques n'expliquent qu'entre 10 et 25% de la variance des coûts de l'utilisation des services des santé Ainsi il est prévisible que l'application de la formule actuelle mènera à une compensation insuffisante des caisses à structure de risque plus élevé. Les auteurs arrivent à la conclusion qu'il est urgent d'améliorer la formule actuelle. Ce faisant il faudrait prendre en considération les facteurs diagnostiques et l'utilisation des services hospitaliers, l'état d'invalidité ainsi que les variations régionales considérables de côuts. En l'occurrence les conséquences sont aussi de grande portée pour les systèmes d'assurances d'autres nations à modèles de compensation analogues.

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