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ISSUE BRIEF

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Wading Through Medical Insurance Pools: A Primer

Policymakers have been exploring the use of pooling mechanisms as a means to expand the availability of health care coverage. Discussions at both the federal and state levels have focused on medical insurance pools and their potential to provide more stable and affordable health insurance coverage.

Pooling is essential for a viable insurance program, but by itself it's no guarantee. As policymakers explore the use of alternative pooling arrangements involving different rating mechanisms and/or benefit requirements, it is important to understand how these alternatives will affect existing pools, and how existing pools will affect the new pools. Pooling must use techniques to minimize selection in a voluntary insurance market. Otherwise, pools that attract those with higher expected claims will have higher rates and a premium spiral could result unless subsidized by some mechanism.

This issue brief describes the types of medical insurance pools, highlights issues that are fundamental to pooling, and illustrates how changes within a multiple small-employer pool would affect medical costs. The paper also describes different rating methods and examines the potential effects of introducing a new rating mechanism in an existing insurance market.

Medical Insurance Pools

The pooling of risk is fundamental to all types of insurance because large pools of similar risks exhibit stable and measurable characteristics that enable actuaries to estimate future costs within an acceptable range of accuracy. This, in turn, enables actuaries to determine premium levels that will generally be sufficient to fund claims and administrative costs that are stable over time, relative to overall cost trends. While this paper focuses on medical insurance, the ability to ac-

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AMERICAN ACADEMY of ACTUARIES

1100 Seventeenth Street NW Seventh Floor Washington, DC 20036
Tel 202 223 8196 Fax 202 872 1948
www.actuary.org

Kevin Cronin, Executive Director
Noel Card, Director of Communications
Craig Hanna, Director of Public Policy
Cori E. Uccello, Senior Health Fellow
Holly Kwiatkowski, Senior Health Policy Analyst (Federal)
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curately estimate adequate premium levels is the foundation of insurance and also applies to other insurance lines, including life and property and casualty.

In simplest terms, medical insurance pools are large groups of individual entities (either individuals or employers) whose medical costs (claims) are combined for evaluating financial experience and/or determining premiums. The size of the pool may vary from a few hundred individuals to hundreds of thousand. Every pool has eligibility requirements for individual members. Eligibility requirements such as employment, group size, or association membership, for example, are the key elements that bind members of the pool together.

How groups are pooled and how premiums vary within a pool depends on many factors, including state laws, the regulatory environment, and insurer practices. Because these factors vary by state, pooling practices and rating practices vary.

Types of Medical Insurance Pools

Large-Employer Pools

All pools are formed for the purpose of combining the medical experience of its members in order to make future claims more predictable. Large employers (generally more than 1,000 employees) almost universally will have a pool consisting solely of their own employees with premiums generated entirely from the claims of their employees and dependents, although some employers also include retirees and their dependents within the pool. Pool membership is usually automatic, with a very large percentage of employees participating due to the significant premium subsidies the employer often provides. (The process of electing — or not electing — to participate in a health insurance program is referred to as “selection” as well as “take up” and it plays a critical role in the success or failure of any medical insurance pool. This will be discussed in more detail later in the paper.) A large-employer pool is formed as an incidental by-product of the employer’s business processes and activities and eligibility for such a pool is based solely on an individual’s employment with the large employer. Employment can be thought of as the “glue” that binds the pool members together.

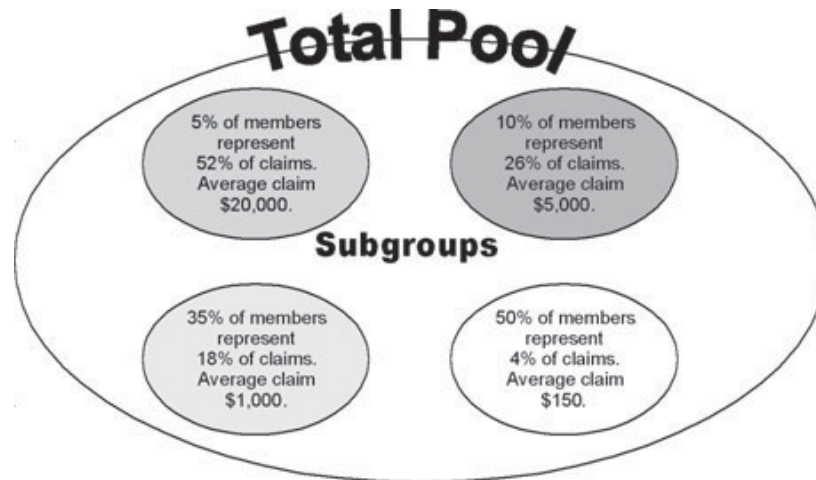
Pool members are generally diverse as far as age, gender, and health status. If there are enough members, their diversity produces fairly stable medical utilization and claims that can be used as the basis for predicting future premiums. In contrast, pools with low membership can experience extreme fluctuations in utilization and claims.

Some individuals are high users of more intensive services and are considered higher risks, while others who use fewer services are considered lower risks. **In every pool the healthier risks subsidize the unhealthy risks. For a pool to remain viable and intact, it must be of sufficient size to reflect a balanced cross-section of risks.** If a pool is composed only of high risks, the premiums will be high. In a voluntary market, high premiums result in healthier risks electing (or selecting) not to participate because they do not perceive the premiums as being a wise economical purchase. As a result, the pool is made up of a disproportionate share of less healthy risks. Anti-selection results when there is no economic incentive for healthy individuals to purchase insurance. Anti-selection is partially mitigated in a large, single-employer pool because the employer generally funds the majority of the premium, providing a very real economic incentive for employees to participate regardless of their health risks. Since the employees are not responsible for the majority of the cost of the program, their expected return in the form of claim compensation is equal to or greater than the premium contributions they make.

The employer further limits selection by requiring members to enroll only at a certain time — when they become first eligible (after completion of any probationary period) and at annual open enrollments. Benefits are often limited for the treatment of pre-existing conditions for individuals who waived insurance entirely when they were first eligible and now want to participate. These enrollment restrictions, coupled with limited benefits for pre-existing conditions, help minimize the possibility of “just in time” insurance where employees would delay the purchase of insurance until they need care. Employment practices and processes act as the “glue” that keep pool members intact and provide a barrier against entry by a disproportionate number of high risks.

Figure A illustrates a distribution of claims and the members with claims at those levels for a typical large employer:

FIGURE A



Note: The information provided in Figure A is for illustrative purposes only. While the magnitude of the numbers indicates experience for large employers in general, the actual numbers for any particular employer would vary.

The employer decides the level of benefits offered, the choice of benefits, and the amount of subsidy provided. Decisions left to individual employees are generally limited to participation (take-up) in the pool and choice of benefit plan. Because of the employer subsidy, take-up rates have historically been very high. A large employer essentially makes the health care decisions for the employees rather than individual employees electing to seek coverage on their own.

Individual Pools

Pools of individuals who purchase insurance are at the other end of the choice spectrum. Individuals must actively seek and purchase medical insurance and must fund the entire cost of the premium in addition to all cost sharing provisions of the benefit plan. Individuals join the pool solely because they want to purchase insurance, not because they are already members of another group, such as employees. Adverse selection is therefore a major concern in the individual market. Individuals must apply for membership in the pool and must meet explicit membership requirements, which can vary by the particular pool. These requirements will have different effects on claim costs.

The lowest claim costs are evident in pools where individuals must satisfy an insurer's medical underwriting requirements. The requirements may be loose, requiring only a series of answers on an application for coverage, resulting in a fairly high number of unhealthy members. Or the requirements may be stringent, requiring physician statements and blood and fluid tests, resulting in healthier members. More stringent requirements will generally produce pools with lower initial claim costs than in pools with less stringent requirements. The underwriting process is generally applied on an individual basis, thus an applicant may be accepted while a dependent is rejected. The effects of underwriting wear off over time as individuals who were healthy at the time of application acquire new health conditions. Even pools that combine individuals who were previously underwritten with an ongoing stream of new entrants, however, will have lower overall claim costs than pools without underwriting.

The highest claim costs are in pools composed of high-risk or uninsurable individuals, called high-risk pools. Typically, individuals must have been rejected by one or more insurance companies for medical reasons to enroll in a high-risk pool. Medical costs in these pools will be very high because they are composed only of sick people with serious health conditions who are expected to be high users of medical services. While the premiums for high-risk groups are typically 150 percent of the premium in the individual market for a standard risk (or higher), they are usually insufficient to fund claims and administrative expenses and therefore need to be subsidized by outside sources.¹ A pool composed of high-risk individuals will not result in low premiums and

1. Comprehensive Health Insurance for High-Risk Individuals, Nineteenth Edition, 2005/2006, published by CA, Inc. in cooperation with the National Association of State Comprehensive Health Insurance Plans.

will not be self-sustaining. **Merely forming a pool will not automatically guarantee that costs will stay low and stable in the future.**

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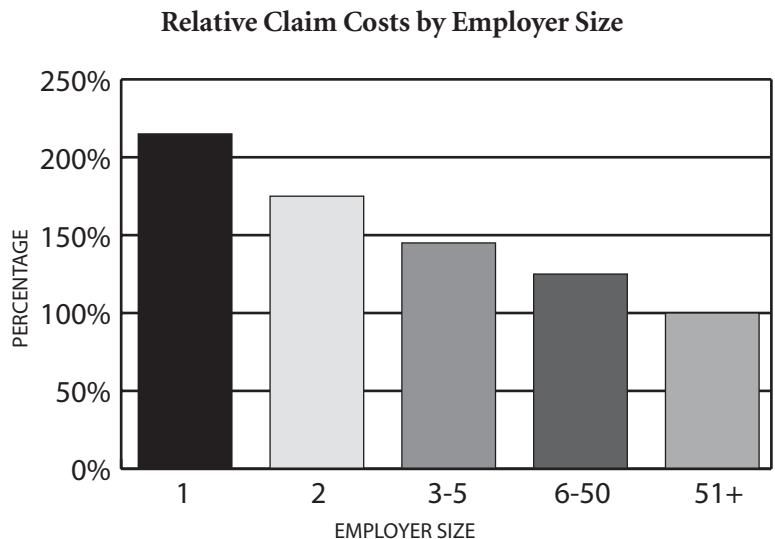
Other Medical Pools

Sometimes insurers pool several mid-size employers together. The premiums for any specific employer will be a blend of their own experience and the experience of the pool as a whole. The aggregate medical costs in these pools, however, will approach those of a large employer because the pool is incidental to other business processes and activities and mid-size employers will generally have similar demographics and health risks.

Other pools may be composed of many small employers with a large combined membership. The experience of all employers is pooled to determine basic premium costs, although the premiums for any specific employer may vary based on demographics and the health status of its employees and/or dependents. The demographics for any specific small employer may not be indicative of the demographics of the overall pool because there are not enough employees in any specific small employer group to reflect the entire spectrum of risk. Insurance for individuals in these pools is not typically underwritten. Since small employers are not required to offer insurance programs, either legally or competitively, those who do offer such coverage often have higher claim costs due to the individual selection involved in the employees' decision to purchase (a common example is for an owner to offer insurance to secure coverage for his/her self and dependents). Pools of small employers may also have higher claims costs because small employers often do not have the stringent employment requirements that large employers may have. Large employers are more apt to have formal processes in place to selectively recruit employees who meet physical requirements for certain jobs, for example, while small employers typically do not have such employment requirements.

Figure B illustrates relative claim costs by employer size using the costs for groups with more than 50 employees as the base for comparison in a state requiring that group insurance be offered to employers with one or more lives. In this state, insuring entities were required to provide guarantee-issue coverage to groups of one (self-employed individuals) within the same rating bands as they were required to use for small employer groups (groups of between two and 50 employees). The Health Insurance Portability and Accountability Act (HIPAA) requires insurance companies to provide guarantee-issue coverage to employer groups of between two and 50 employees.

FIGURE B



Note: The information provided in Figure B is for illustrative purposes only. While the magnitude of the numbers indicates real experience, the actual numbers would vary.

Other Issues

Decision Making

A single employer makes the purchasing decisions for all employees, serving as the “glue” that holds employees together. For a block of 333 employers with 3 lives each, there are 333 purchasing decisions, so the “glue” is very thin and weak. There is no guarantee that all 333 groups will remain in the insurance pool or that there would be replacements for those who leave. A single 999-employee group will almost always form a pool, where the “glue” is very thick and strong.

A single employer with 999 employees is not the same as 333 groups with 3 employees each.

Administrative Costs

Just as forming a pool does not automatically result in lower medical costs, a pool also does not necessarily result in lower administrative expenses. The administrative costs in a pool of small employers vs. a large-employer pool may be classified differently, but the actual costs would likely be similar. Large employers have human resource departments to handle health insurance issues such as enrollment and premium collection. They will often use benefit consultants instead of an insurer’s staff for plan design issues. Small employers, especially very small employers, use insurance agents, who receive a commission for their services, to sell the plan, enroll employees, and serve as a liaison with the insurer. Thus the administrative expenses for large groups vs. small groups are likely not comparable. There are some administrative expenses that are greater for small groups, such as billing and initial underwriting. Other administrative functions, such as paying claims, compliance, or provider negotiations, offer little opportunity for expense savings in any medical insurance pool.

Provider Reimbursement

Large insuring entities that have members concentrated in a confined geographic area are often able to negotiate more favorable provider reimbursement levels than an insuring entity of the same size whose membership is distributed across several states or which has smaller insuring entities. It is common practice for an insurer to make the same provider reimbursement levels (hospital or physician charges) available to each of the pools it manages.

Managing A Multiple Small-Employer Pool

A multiple small-employer pool typically consists of employers with two to 50 employees. Evaluating financial results and determining necessary premiums are an important part of managing a multiple small-employer medical insurance pool. Determining the expected medical costs can be difficult if, for example, there are changes in the size mix of small employers in the pool. For individual insurance, the average duration since issue is a determinant of medical costs. Once medical costs are determined, there may be stringent rules regulating rate increases or premium rates. The effect of these regulations on the financial expectations of the pool requires careful consideration since they can affect the pool’s viability.

Managing the effects of anti-selection is a crucial element of a successful pool:

- In a voluntary insurance market where individual units (be they employer units or individuals) elect whether to purchase insurance, selection occurs.
- A goal of insurance is to minimize anti-selection.
- Pooling can minimize anti-selection or increase it.

For illustrative purposes, Table 1 reflects the typical distribution of pool members by size of claim as previously shown in Figure A. In this baseline example, 35 percent of members have an average claim of \$1,000, and 5 percent of members have an average claim of \$20,000. The average claim per member of the pool is \$1,925.

TABLE 1

Baseline Membership Distribution and Baseline Claim Costs				
Members		Claims		
Number	Percent	Average Claim Size	Total Claims	Percent of Total Claims
[A]		[B]	[A] x [B]	
500	50%	\$150	\$75,000	4%
350	35%	\$1,000	\$350,000	18%
100	10%	\$5,000	\$500,000	26%
50	5%	\$20,000	\$1,000,000	52%
1,000	100%	\$1,925	\$1,925,000	100%

Successfully managed pools will produce an increase in the average claim cost equal only to the average of provider price increases and overall average utilization increases. In this case, with other things being equal (i.e. no new groups being introduced), members of a subsegment will not have a strong reason to leave the pool since healthy members will not find a “better deal” elsewhere. Table 2 illustrates the outcome if there were a 10 percent provider price increase. For simplicity, the examples assume no utilization increases.

TABLE 2

Baseline Distribution with a 10% Provider Increase in Cost				
Members		Claims		
Number	Percent	Average Claim Size	Total Claims	Percent of Total Claims
[A]		[B]	[A] x [B]	
500	50%	\$165.00	\$82,500	4%
350	35%	\$1,100.00	\$385,000	18%
100	10%	\$5,500.00	\$550,000	26%
50	5%	\$22,000.00	\$1,100,000	52%
1,000	100%	\$2,117.50	\$2,117,500	100%
Increase from Baseline:		10%		

In Table 2, total claims and the average claim increase by 10 percent. Nevertheless, the distribution of claims equals that under the baseline example.

If the distribution of members by subsegment were to change, however, the equilibrium of the pool could change, resulting in an increase above the average claim cost in Table 1. (Although the result could be a smaller claim cost, this is rare.) Table 3 illustrates how a very minor shift in the distribution of claims costs can produce a significant increase in the average claim cost.

TABLE 3

Change in Baseline Distribution no Provider Increase in Cost				
Members		Claims		
Number	Percent	Average Claim Size	Total Claims	Percent of Total Claims
[A]		[B]	[A] x [B]	
450	45%	\$150.00	\$67,500	3%
370	37%	\$1,000.00	\$370,000	18%
130	13%	\$5,000.00	\$650,000	31%
50	5%	\$20,000.00	\$1,000,000	48%
1,000	100%	\$2,087.50	\$2,087,500	100%
Increase from Baseline:		8%		

In Table 3, the share of members with the lowest average claim of \$150 decreases from 50 percent to 45 percent, and the shares with averages of \$1,000 and \$5,000 increase from 35 percent to 37 percent, and from 10 percent to 13 percent, respectively. The relatively small shift in the distribution of claims increases the overall average per member by 8 percent, from \$1,925 to \$2,088.

If this member shift is combined with the 10 percent provider price increase, the average claim per member increases even further, as illustrated by Table 4.

TABLE 4

Change in Baseline Distribution and a 10% Provider Increase in Cost				
Members		Claims		
Number	Percent	Average Claim Size	Total Claims	Percent of Total Claims
[A]		[B]	[A] x [B]	
450	45%	\$165.00	\$74,250	4%
370	37%	\$1,100.00	\$407,000	19%
130	13%	\$5,500.00	\$715,000	34%
50	5%	\$22,000.00	\$1,100,000	53%
1,000	100%	\$2,296.25	\$2,296,250	110%
Increase from Baseline:		19%		

The combination of the 10 percent increase in provider payments and the shift in membership distribution to higher claim classes results in a 19 percent increase in the average claim per member. The average claim per member underlies the premiums paid by employers/members. An increase of 19 percent could be an inducement for those in the lower cost subsegments to leave the pool since:

- Individual units will seek to maximize their own economic interests through the selection process, if allowed.
- Insuring entities have an economic interest to attract lowest-cost risks, if allowed.

Management Techniques

Several years ago, many states allowed insurers to manage and price their small-employer pools with little regulation, resulting in excessive rate increases and re-underwriting, and the use of other techniques to force employers to drop coverage. Such practices would generally be considered unacceptable today and states have since adopted regulations to limit the premiums paid by members of an insurer's small-employer pool relative to other members in the pool. The federal government has enacted HIPAA, which requires guaranteed issue for groups of between two and 50, allowing employers the ability to renew coverage. HIPAA does not, however, address rate regulation.

States commonly use the following three rating methods:

Pure Community Rating (PCR). Every member of an insurer's pool within the same geographic area pays the same premium rate.

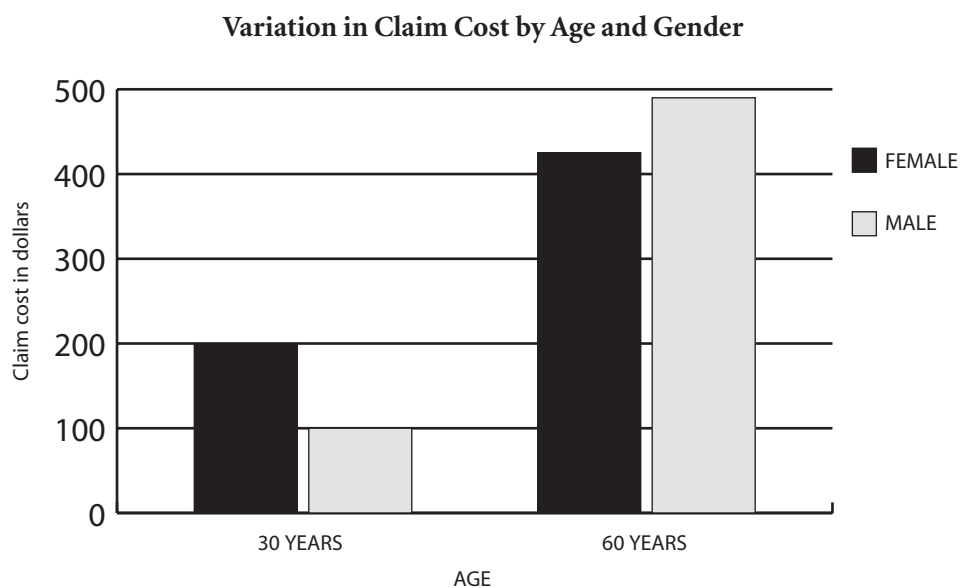
Modified Community Rating (MCR). Premium rates may vary by age and gender (generally) but not by health status or the employer group's claims experience.

Variations of the Initial NAIC Rating Model (NAIC). Rates may vary by age and gender and by limited percentages based on health status and claims experience. These limits are frequently +25 percent to +35 percent of the average rate, although some states may have higher or lower limits. There may also be limits on annual rate increases attributable to changes in morbidity, which is the relative health status of all the members of a particular employer group.

Each of the above techniques has the potential to produce stable pool experience over time, although the ability to attract a broad distribution of risks varies. The pure community rating technique is most effective at improving premium affordability for older and less healthy groups. Employers with young and healthy members, however, are less likely to participate because their premiums could be much higher than the expected value of the coverage. In effect, the distribution of enrollees would shift toward those with higher claims costs, resulting in an increase in premiums as illustrated in Tables 3 and 4.

Modified community rating reflects significant differences by gender and age (see Figure C). Employers with younger employees are induced to join and remain in the pool because their premium costs are lower. An employer with older employees, however, may be less likely to join the pool, and more likely to leave the pool, because of higher premium costs.

Figure C



Source: The information provided in Figure C is for illustrative purposes only. While the magnitude of the numbers indicates real experience, the actual numbers would vary.

The NAIC rating method normally combines variations within limited percentages based on health status and claims experience with age and gender rating. This approach produces a wide range in premium rates, often resulting in a more stable pool. Younger and healthier groups who are encouraged to join and stay in the pool subsidize the premiums for the older and sicker groups. While older and sicker groups pay higher premiums under the NAIC model than they would under other rating methods, they still receive subsidies from the younger and healthier groups that help fund claim expenses. Limitations on rates and rate increases may induce “sicker” groups to remain in the pool.

Introducing Pools with Different Rating Mechanisms

Recent proposals would allow the introduction of new pools potentially using rating techniques different from those currently required in the states. Benefits offered in the new pools may also be different from those currently required. The impact of a new rating system on a state’s insurance market will vary based on the rating rule restrictions in current state regulations. Pure community rating is typically the most restrictive rating technique, while the NAIC rating method is the least restrictive, and modified community rating lies somewhere in between. The impact of introducing alternative benefit packages will also vary based on a state’s current benefit package requirements.

Introducing a pool into a state with less restrictive rating requirements may induce younger and healthier groups to join the new pool and older and less healthy groups to remain in the existing pool because of the significant differences in premiums by age and/or health status. For instance, introducing a new pool with modified community rating into a state with pure community rating could result in the pure community rating pool having an even higher average age and higher costs over time. This could create a “rate spiral,” making insurance very expensive and unattractive for all but the sickest individuals in the pool. Introducing a pool regulated under the NAIC rating rules, which allows age and gender rating, into an existing modified community rating state may have similar results. It could induce some employers to join the new pool if the age/gender rating factors are not comparable between the two pools. Employers will seek the pool that maximizes their economic well being, (i.e., the lowest rates for similar benefits). Employer groups that previously were subsidizing other groups will have an economic interest to join the pool that requires them to contribute the least subsidy. Similarly, groups that are currently enjoying a high subsidy from other groups will have an economic interest to remain in the pool that provides them the greatest subsidy.

Employers may also be induced to join a new pool if benefits offered in the new pool are significantly less than those required in the existing pool. For example, groups whose members do not use mandated benefits would be induced to join a pool without those benefits and with correspondingly lower premiums. The old pool will have higher premiums since it will be disproportionately composed of enrollees who will use the mandated benefits.

Introducing a pool with more restrictive rating requirements into a state using the NAIC rating method will similarly result in market segmentation. Groups with expected claim costs and premiums that are higher than the existing rates will join the new pool to obtain lower rates. Groups with lower expected claim costs and premiums than the new pool is allowed to charge, however, will have an incentive to stay in the existing pool. This, in turn, will result in the existing pool being composed of a larger than expected share of healthy groups, which will drive the premiums further down. The new pool, however, will not have enough healthy groups to subsidize the premiums for the older/sicker groups. The premiums for this new pool will increase, encouraging more groups in the new pool to consider the existing pool, which will drive even more healthy groups out of the new pool. The process of driving healthier risks out of a pool is often called an assessment spiral or a death spiral because once it begins, it is usually the precursor to the death of the pool. This will be true whether the premium rate differential is due to less generous benefits or lower “experience adjustments” built into the new pool rates.

Conclusion

Pooling is essential for a healthy insurance program, but it does not by itself, guarantee viability. Policymakers need to understand the advantages of pooling, but also the dangers that can occur if pools are disrupted by market reforms. If all pools have to abide by the same rules that do not encourage selection, then anti-selection could be minimized. Allowing different rules within the same market will doom a pool that has the more stringent requirements, and will result in market disruption. Medical insurance is a balance of encouraging enough healthy risks to enroll to subsidize the unhealthy risks that will have the economic incentive to participate. Care must be taken to develop policies that will result in maximizing the enrollment of these healthy risks while not pricing the unhealthy risks out of the market.

Policymakers often have to balance competing goals of increased access (availability to all members) and increased affordability (lower premiums.) These goals can produce difficult choices that could result in unintended consequences. Policymakers should be mindful of both the favorable and unfavorable potential consequences of these choices as they consider new approaches to increase access and affordability in health coverage.