



An Association Health Plan in Massachusetts: Rx for Small Business

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Executive Summary

Legislators, policymakers and businesses nationwide continue to struggle with the burden of ever-increasing healthcare costs and an expanding pool of uninsured citizens. Even in Massachusetts, with one of the most generous healthcare systems in the nation, the number of uninsured swelled to over 460,000 in 2004. The cost of caring for this group continues to grow. Last year it totaled nearly \$1.1 billion.

Surprisingly, perhaps, the majority of the state's uninsured are working adults, many employees of small business. Although large firms employ over 73% of the workforce in Massachusetts, small business employees make up nearly 60% of the state's uninsured workers.

Rapid premium inflation during the late 1990s forced small employers, who suffer from higher premiums and faster inflation than their larger counterparts, either to drop coverage or to pass the increases in premiums on to their employees.

Cognizant of the high costs facing small employers in the traditional insurance market, a number of states have experimented with healthcare purchasing pools. By allowing small employers collectively to purchase insurance, policymakers in these states have tried to constrain premium prices and expand coverage. These purchasing pools have been successful at expanding health plan choice among small business employees. And, although few have attracted the hoped-for participation by small business and the uninsured, these early endeavors do offer valuable lessons about their place in the healthcare insurance market. With this experience, small group purchasing pools hold new promise of expanding coverage of small group employees and reducing the number of uninsured.

The Beacon Hill Institute has modeled the effects of a small group purchasing pool in Massachusetts. We base our model on a pragmatic design of a purchasing group. We assume that current insurance regulations regarding community rating and mandated benefits remain intact. This seems plausible, given the political obstacles facing any revision of either of these regulations. Also, we assume that one large purchasing pool, open to all small employers in the state, would negotiate premiums and administer plans for all member firms. The pool may be organized from trade and professional organizations, business coalitions, or created by the legislature.

Given this framework, we find that a small group purchasing pool has the potential to:

- provide coverage to an estimated 10,258 firms, of which 4,273 did not previously offer insurance;
- extend coverage to 83,575 enrollees, of which 24,822 were previously uninsured workers and their dependents;
- reduce the number of uninsured workers by 14,687, and
- reduce the burden of uncompensated care by \$47.6 million.

Other beneficial (although less quantifiable) outcomes are likely. A large-scale purchasing pool, by creating downward pressure on premiums, may prevent small business employees from receiving a downgrade in their medical insurance or losing insurance altogether. Also, the enhanced bargaining power may help prevent large, unexpected year-to-year premium increases, thereby providing more stability and predictability for small employers.

Pooling also provides for greater choice among health plans. The administrative cost of offering multiple plans typically prohibits small employers from offering more than one plan. One of the expected benefits of this increased choice, brought about by the presence of a purchasing pool, is continuity of care, which may be quite valuable in the small group market where job turnover can be much higher.

A centralized administrative staff will provide the expertise that small firms are unlikely to possess on their own. Small firms typically lack the resources (both time and money) to hire a specialized staff to comparison shop for the best deal and to administer the plan most efficiently. Experience has shown that this service has been particularly valuable to small firms receiving insurance through a purchasing pool.

Finally, some authors have argued that expanded health care coverage would confer measurable economic benefits in the form of increased “health capital,” i.e., increased productivity and “utility” made possible through greater health. Using one study of these benefits, we estimate that the creation of a Massachusetts AHP would increase the “health capital” of the state by an amount ranging from \$44.4 to \$88.6 million.

I. Introduction

Association health plans (AHP) are trade, industry, government or professional-organization-sponsored health insurance plans. The purpose of AHPs is to join together small businesses, to allow them to gain the administrative efficiencies and bargaining power that larger businesses enjoy when providing healthcare for their employees, and to pass these gains along to their employees in the form of lower premiums, more comprehensive coverage or expanded choice.

Health insurance purchasing pools were an important component of small group insurance reforms in the early 1990s. Some have been successful whereas others have attracted few participants or only very small businesses and have ultimately failed. Those that remain continue to enjoy stable growth and provide significant benefits to member firms by alleviating administrative burdens and providing expanded employee choice of health plans. In Massachusetts, where only 14% of the small employers that do offer insurance also provide multiple plans, a purchasing pool shows particular promise. Proponents within the state insist that a small group purchasing pool in Massachusetts has the potential to:

- level the playing field with respect to the cost and choice of health insurance among Massachusetts employers, thus permitting small businesses to compete more effectively with their larger counterparts;
- reduce the number of participants in the uncompensated care pool and thus decrease the burden of providing uncompensated care;
- increase the ability of small businesses to recruit skilled labor and to compete regionally.

This study examines the prospects of a small group purchasing pool in Massachusetts and explores the potential impact on premium prices, the number of firms offering insurance, and the number of uninsured Massachusetts residents.

II. Background

Today approximately 460,000 Massachusetts residents are without health insurance.¹ The annual cost of caring for these uninsured has recently been estimated at nearly \$1.1 billion.² Surprisingly, perhaps, in a system where the majority of people obtain their health insurance through their employer, many of these uninsured are working adults. In 2004, over 68% of the non-elderly uninsured adults in Massachusetts were employed.³

Nationally, most working uninsured adults are employed by small businesses, and Massachusetts is no exception. Nearly 60% of all uninsured workers in Massachusetts are currently employed by a firm with fewer than 50 employees.⁴ In 2003, 98% of large firms offered health insurance, compared to 66% of small firms.⁵

The decision to offer health insurance depends on a number of factors, but the most relevant, typically, is premium cost. When asked why they do not offer health insurance, 94% of Massachusetts firms that do not offer insurance cited the high cost of premiums.⁶ It should come as little surprise then, when one considers the difference in premiums between large and small firms (discussed below), that small firm coverage ratios are much lower. In an environment of ever-increasing healthcare costs, small firms and their employees are discovering that they can no longer afford coverage. One report found that three-quarters of the loss of insurance coverage between 1989 and 1996 can be attributed to the rise in premiums.⁷

Small Group Health Insurance

The widespread practice of obtaining health insurance through employment began in the 1940s as a response to a labor shortage and wage freeze during the Second World War.⁸ By 1987, nearly 70% of all insured non-elderly Americans were covered by employer-sponsored health plans.⁹

The employer-based insurance system has been attractive because of its ability to obtain lower prices and provide more comprehensive coverage than individually purchased insurance. The system's effectiveness can be attributed to four factors:¹⁰

1. lower administrative costs,
2. group purchasing discounts,
3. premiums paid with pre-tax dollars, and
4. risk pooling

As the size of an organization grows, fixed administrative costs are spread across a larger and larger pool of employees, lowering unit costs. Similarly, the larger volume of insurance purchases allows firms to obtain lower premiums than a smaller firm or an individual could obtain. Additional savings are also realized because the employer portion of the insurance premium is not taxed and workers typically pay their portion with pre-tax dollars. Finally, by pooling together a large collection of heterogeneous employees (both high and low-risk individuals), the employer-based system reduces the overall risk to

insurers; this more attractive option simplifies the insurers' task and allows for one, more affordable rate to be charged to each firm.

The influence of these factors is cumulative. As firm size increases, the cumulative impact of each of these factors drives premiums lower. Having more employees allows fixed administrative costs to be spread more thinly, facilitates better risk-pooling, and creates an opportunity to extract larger volume discounts from insurers. This point is illustrated by comparing the premiums charged to large and small businesses in Massachusetts. In 2002, the average annual premium (per enrolled employee) for single coverage was 13.7% higher for a firm with fewer than 50 employees than for a firm with 50 or more employees (\$3,701 versus \$3,255). See Table 1. Similarly, family premiums for small firms were 13.3% higher, on average, than those charged to large firms (\$9,734 versus \$8,589).

Table 1: Average Annual Premium per Enrolled Employee in Massachusetts Private Sector (Current \$)

	1997	1998	1999	2000	2001	2002
Single						
Small Firm	2,522	2,561	2,845	3,179	3,359	3,701
Less than 10 employees	2,879	2,900	2,986	3,354	3,401	4,057
Large Firm	2,138	2,340	2,404	2,572	2,995	3,255
Family						
Small Firm	6,210	6,288	7,035	8,265	8,805	9,734
Less than 10 employees	6,455	6,784	6,895	8,469	8,907	10,752
Large Firm	5,685	6,107	6,412	7,089	8,052	8,589

Memo: Small firm defined as having fewer than 50 employees

Source: Agency for Health Care Research and Quality, Medical Expenditure Panel Survey, 2004.

The rapid escalation in healthcare costs has placed considerable pressure on insurance premiums in recent years. As premiums have risen, employers (those that continue to offer insurance) have been forced to pass more costs along to employees. As a result, some employees have chosen to bypass insurance rather than absorb the loss in disposable income. The result is a growing pool of uninsured working adults in Massachusetts (and the nation).

There also exists a disparity between large businesses and small business in their ability to provide a choice of health plans to their employees. In 2003, 53% of large businesses provided a choice of more than one health plan to its employees, compared to 14% of small businesses.¹¹ This lack of choice and flexibility can be just as troubling to small business employees as the relatively higher premiums they must endure.

In the early 1990s, several states attempted to relieve some of the pressure on small business, due to out-of-control premium hikes, by organizing small group purchasing pools. These groups sought to exploit the same factors that have made employer-sponsored health insurance a success for large business: lower administrative costs, group purchasing power, and risk-pooling. The goal is to allow small firms to achieve the critical mass necessary to exploit economies of scale. In theory, pools would appear to be a viable solution to the problems in the small group health insurance market; in practice, the results have been mixed.

Small Group Purchasing Pools in Other States

Purchasing pools became an important part of state-level small group insurance reforms in the early 1990s. The appeal of small group purchasing pools is clear. Small employers generally lack the necessary expertise to select and administer health plans. They also cannot afford to employ specific staff to do so. Additionally, their size prohibits them from effectively bargaining with insurers. The purchasing pool promises to simplify and enhance small employers' health insurance decisions by exploiting economies of scale. Employing a full-time, specialized administrative staff, the purchasing pool can more efficiently choose health plans and market them to small firms. Their larger size provides them bargaining power with health plans that will be forced to compete for their business. Finally, because the pool may deal with multiple insurers, pool enrollees enjoy the advantage of choosing from multiple health plans, a benefit that most small employers cannot provide.

Pools in California, Connecticut, and Florida were among the largest groups formed. Because each pool adopted a unique strategy and enjoyed varying levels of success, these early endeavors provide valuable lessons for future efforts.¹²

California

The nation's first and largest state-run purchasing pool was established in California in 1992. As part of wide-ranging reform legislation, the Health Insurance Plan of California (HIPC) was established to expand small group insurance coverage by improving affordability and consumer choice. Insurers, expecting the HIPC to garner significant market share, initially offered the pool favorable premiums. In July 1993, the HIPC began offering small group insurance and initially enjoyed rapid growth. By July 1994, the HIPC provided coverage for 3,246 employer groups, 32,496 employees and 58,017 enrollees.¹³ Within a year, coverage expanded by over 50% to 4,911 employer groups and over 92,000 enrollees.¹⁴

Although large in absolute terms, the HIPC never achieved more than a 5% market share in the small group market. In July 1999, the HIPC, now privately run and renamed Pacific Health Advantage (PHA), covered 8,216 employer groups and 144,424 enrollees, but accounted for only about 2% of the state's small group market.¹⁵ As the vast majority of small group insurance was being sold outside the HIPC, insurers recognized the need to equate premium prices (inside and outside of the HIPC) to avoid competing with themselves.¹⁶ Thus, when the danger of losing significant market share disappeared, insurers raised premiums. Today most experts agree that any price advantage that the PHA had possessed has disappeared and small group premiums within the PHA are now comparable to those of the rest of the market.¹⁷

The HIPC has, at least up to this point, been unsuccessful in its attempt to expand statewide health insurance coverage. Although 20% of its member groups were uninsured prior to enrolling in the HIPC (many are new businesses), this rate appears to be typical for the small group market in general.¹⁸ To imply that the HIPC was a failure, however, would be incorrect. One significant benefit of the HIPC is that it has allowed for much greater employee choice of health plans. While the vast majority of small firms (that provide health benefits) typically offer only one plan, the HIPC has offered between 11 and 15 health maintenance organizations (HMOs).¹⁹ Additionally, although premiums for small employers within the pool are comparable to those outside, some suggest that the presence of the pool has helped to constrain the growth in premiums throughout the entire small group market.²⁰ Finally, as Wicks and Hall point out, it may still be too early to judge the HIPC's ability to attract employers; the process of accumulating market share may simply take longer than expected.²¹ Today the PHA covers over 11,000 small businesses and about 130,000 enrollees.

Florida

In 1994, eleven private non-profit Community Health Purchasing Alliances (CHPAs) began operating in Florida. Each state-chartered CHPA covered a distinct geographical area and offered local employers the option of at least two health plans. Unlike California, the CHPAs could not negotiate premium prices with health plans, but hoped to deliver savings through administrative efficiencies. Like their counterparts in California, though, Florida health plan designers may have believed that the pools would become major players in the market and initially offered premiums as much as 6% below those in the traditional market.²²

Although the CHPAs initially enjoyed rapid growth, they, like California, were unable to gain more than 5% of the small group market. Enrollment peaked at around 92,000 in 1998, but began falling soon after.

By early 2000 it had fallen to around 45,000. Low market share and an inability to negotiate premiums ultimately dissolved any pricing advantage found within the pools. Complicating matters further, a preponderance of very small employers (“micro-groups” with five or fewer employees) enrolled in the CHPAs, creating the fear of adverse selection within the pool. This may have led some health plans to take a less enthusiastic view of the purchasing pools. Beginning in late 1999, health plans began to drop coverage. The number of participating health plans fell from a high of around 35, to ten in the fall of 1999, and to five by February 2000. In the spring of 2000 the CHPAs decided to cease operations.

Connecticut

The Connecticut Business and Industry Association purchasing pool, Health Connections, began offering coverage to small employers (with 3-50 employees) in 1995. As in Florida, the pool was prohibited from explicitly negotiating premiums. But unlike Florida, where price competition among insurers led to lower premiums, the CBIA could not pass savings on to its members. As a result, small business premiums in the traditional market were comparable to those available to CBIA members.

Surprisingly, Health Connections has been more successful than either the Florida or California pools in terms of capturing market share. This is impressive considering its inability to provide lower premiums to its members. The relative success may be due to the CBIA’s close relationship with insurance agents. Unlike California, in which employers were encouraged to enroll directly through the HIPC, Connecticut small businesses were required to enroll through an insurance broker.²³ This is particularly relevant because many small firms tend to rely heavily on insurance agents (through whom they may already be purchasing other insurance) for advice. Agents and brokers in California perceived the pool as a threat to their livelihood and thus did not market them to employers. This adversarial relationship is a key to understanding why early purchasing pools failed to gain market share and consequently, premium discounts.

While the CBIA may be unable to provide premium discounts, membership remains valuable to small employers in Connecticut. As mentioned previously, a valuable advantage of purchasing pools is their ability to provide enhanced choice of health plans. This benefit, along with the administrative support, has allowed the CBIA Health Connections to continue its stable growth, from 3,500 employers in 1999 to more than 4,000 employers today.

Other Purchasing Groups

Two other purchasing pools deserve mention due to their atypical design and relative success. The Council of Smaller Enterprises (COSE) in Cleveland, Ohio and Farm Bureau Healthcare, offered through the Washington State Farm Bureau.

In 1973, COSE – a private purchasing pool – negotiated a deal with Blue Cross and Blue Shield of Ohio and began offering health insurance to its members at a 10% discount.²⁴ Although originally intended to perform mostly marketing functions, COSE's role changed in the early 1980s when prices increased rapidly and its price advantage all but disappeared. COSE assumed the administrative functions in 1983 and began more aggressive negotiations with Blue Cross – negotiating rates reflective of the risk characteristics of the entire group rather than as individual firms.²⁵ COSE maintains these functions today and continues to enjoy stable growth.

In the late 1990s, the individual insurance market in Washington State was in dire straits. Strict regulation of the individual market had led to significant losses for the region's major insurers. By late 1999 things had gotten so bad that major health insurers in the state decided to stop selling individual policies.

In October 1999, the Washington Farm Bureau struck a deal with Premera Blue Cross to offer group health insurance to the 20,000 farmers and ranchers that make up the Farm Bureau membership. By allowing self-employed farmers and ranchers to purchase through the Farm Bureau, they were able to buy into group policies which typically have much lower premiums.

Both COSE and the Farm Bureau Healthcare differ from traditional purchasing groups due to their close relationship with one particular insurer. Today, both Kaiser and Medical Mutual (formerly Blue Cross and Blue Shield of Ohio) offer insurance through COSE, but the majority (up to 90%) of enrollment buys through Medical Mutual. This is by design; COSE believes that price advantage is best attained by concentrating enrollment with one insurer.²⁶ Similarly, the Farm Bureau Healthcare offers insurance purchased only through Premera. This provides administrative savings and enhanced bargaining power, but limits choice to employees. Based on the relative success of both groups, however, this seems to be a tradeoff that is not perceived to be particularly disadvantageous to employers or employees. In fact, as will be discussed more fully below, few small employers purchasing insurance in a traditional market can offer a choice of plans to their employees.

Small Group Purchasing Pools: Lessons Learned

Importance of Market Share

In the early 1990s, when the concept of small group purchasing pools was developing into a reality, proponents envisioned market share of at least 10% to 20%. In practice, the largest pools have only been able to garner around 5%. This reality is both a symptom and a cause of the perceived failure of purchasing pools. It reflects a circular “chicken-or-egg” problem.²⁷ Without significant market share, pools cannot achieve the economies of scale necessary to deliver lower premiums to their members. Without a reduction in premiums, small employers have less incentive to enter the purchasing pools and, therefore, choose either to buy through the traditional market or to forgo purchasing insurance altogether. Thus, we find a circular relationship between market share and premiums.

The inability to capture market share has been the principal obstacle faced by purchasing groups. Fortunately, this may not be an insurmountable obstacle. Mistakes made in these early endeavors can be corrected and future purchasing pools could be expected to achieve much more favorable market share. Better still, experience has shown that other, potentially more troublesome, flaws are nonexistent. As Wicks and Hall state:²⁸

There is nothing much wrong with HIPCs [health insurance purchasing cooperatives] that having a larger market share would not cure. Their biggest barrier to success is that they are not big. This may seem like a tautology – equivalent to saying that HIPCs would be successful if they were just more successful. But there is a deeper point relating to critical mass. If HIPCs commanded a significant market share – say, 15 percent or more of the relevant market – they might accomplish the following, each of which would help attract more small employers:

- They would be better able to persuade prestigious, high-visibility health plans to participate.
- They would have more leverage in negotiating with health plans, which can lower the costs of coverage, as well as give small employers greater influence on issues such as quality of care and customer service.
- They would achieve greater economies of scale in their own administration, and health plans would realize greater internal administrative savings, both of which should reduce the costs of coverage.
- They would be more visible and thus more likely to be seen as an attractive option for small employers.
- They could better afford to develop effective marketing efforts.

Although the circular relationship between premiums and market share remains, it is possible to initiate the process of expanding participation. For instance, some suggest legislation requiring small group insurance to be bought through purchasing pools, thus mandating market share for the pools. Or it could be started more simply and allowed to develop along a slower, but more natural, course. As experience has shown, the major benefit of insurance pooling for small firms has been the enhanced employee choice of health plans. This expanded choice, in conjunction with a better relationship with insurance agents, may allow the process of market share accumulation to begin. In theory, once this process begins it will continue until all excess profits in the sale of insurance have disappeared and premium levels achieve equilibrium. This may be ongoing in California and Connecticut, but the process is slower than expected (due to early missteps).

Administrative Costs

One of the most serious missteps made by early purchasing pools was to distance themselves from insurance agents and brokers. Pools had hoped to deliver some administrative savings by minimizing or eliminating the role of agents and more importantly, agent commissions. Commissions had become a particularly attractive target for pools because they were disproportionately large for small employers. Pool leadership believed that rather than shop through an agent and pay a commission, small employers could instead purchase directly from the association (which would provide the administrative functions). As might be expected, agent reaction was quite hostile.

The early pools grossly underestimated the importance of agents in the small group market. Lacking the necessary expertise in making decisions regarding health plans or the funds to hire specialized staff members to do so, small employers tend to rely on agents for guidance in purchasing. Even in California, where small employers could purchase through the HIPC without an agent, 70% chose to use an agent and pay the commission.²⁹ An agent that viewed the purchasing groups as a threat would have a disincentive to advise them to purchase through the pool. The result was that the extensive marketing and administrative services provided by insurance agents was lost to the pool. Over time, purchasing pools recognized that importance of agents and now focus much of their marketing to agents rather than employers.³⁰

The proponents of purchasing pools also believed that by centralizing administration they would create efficiencies that could be parlayed into lower premiums. By assuming the tasks of enrollment, marketing, premium collection, etc., which had previously been performed by the insurance carriers, the pools hoped to lower the carriers' administrative costs and thereby attain premium discounts.³¹ This did not occur. As

the purchasing pools struggled to gain a market share above 5%, they never attained the critical mass required to deliver these efficiencies. As the vast majority of small business insurance was being sold in the traditional market, carriers found that they still needed the same level of administrative staff. Finally, concerns regarding pools' inexperienced administrative staffs led carriers to duplicate functions. Thus, in some cases, purchasing pools may have increased, rather than reduced, costs.³²

The inability to deliver the expected administrative savings is one of the pools' principal failures and can be attributed almost entirely to low market share. This should not be discouraging to proponents of these plans, however, inasmuch as it suggests that purchasing pools may yet deliver these savings and realize their potential – once they achieve adequate market share.

Negotiating Premiums

Insurance regulations in Connecticut and Florida limited the potential benefits of small group purchasing pools. By prohibiting plans from providing premium discounts to pool members, these regulations limited the scope of the pools. Without premium discounts, pools relied on administrative functions and enhanced health plan choice to attract small businesses, but because small firms' decisions to offer insurance are influenced most strongly by price, the purchasing pools were able to provide little additional coverage.

It is worth noting, however, that although the Florida CHPAs were not allowed to negotiate premiums, the competitive pressure of such a large number of participating plans (as many as 35) may have had a positive effect on the entire small group market.³³ While this is encouraging and may help explain why premiums offered to pool members and premiums offered in the traditional market are typically comparable, it is not a strong enough argument for limiting the scope of the purchasing pool. Small employer groups should be allowed to exercise their buying clout in the same manner as large employers – it is one of their primary purposes.

Greater Employee Choice

While the lack of adequate market share prevented some early purchasing pools from delivering significant premium discounts, they have been remarkably successful at providing small business employees with greater choice among health plans. The enhanced administrative capability and size-related bargaining clout provided by the association allow for more coverage options to be provided. Experience has shown that purchasing pool members highly value this feature.³⁴

As Table 2 below illustrates, employees of firms participating in a purchasing pool were much more likely to be offered a choice of health plans. Similarly, pool members were much more likely to offer employees a choice of plan type (HMO, PPO, and POS).

Table 2. Percentage of Small Employers Offering Multiple Plans and Multiple Plan Types, 1997

Type of Choice	California		Connecticut		Florida	
	Alliance	Non-Alliance	Alliance	Non-Alliance	Alliance	Non-Alliance
Multiple Plans	100%	15%	82%	7%	98%	10%
Multiple Plan Types	100%	10%	59%	5%	85%	8%

Source: Adapted from Long and Marquis (2001).

Enhanced choice is valued by both employers and employees. For employers, the ability to offer multiple options to prospective employees may help level the playing field (to a degree) between small and large employers in terms of attracting talented personnel. For employees, choice creates multiple benefits. As Tollen and Crane (2001) explain, “Choice allows for continuity of care (i.e., of providers) as people switch jobs and switch employers’ health benefit programs. If more employers offered choice, fewer employees would be forced to switch either plan or provider when switching employers...[and] choice and competition among plans for consumers will pressure plans to be more efficient, which could lead to long-term price stabilization if not reductions.”³⁵

Moreover, choice allows employees to select health coverage that more appropriately matches their needs. Those expecting higher future medical costs may benefit by obtaining a plan with more coverage options (at an increased premium, of course).

III. Estimating the Effects of a Small Group Purchasing Pool in Massachusetts

To estimate the effect of a health insurance purchasing pool in Massachusetts, the Beacon Hill Institute (BHI) constructed an analytical model of the small group market in Massachusetts. The model simulates the behavior of firms and employees in terms of their price responsiveness. The model estimates the number of small firms purchasing insurance through the AHP (comprised of previously uninsured firms and firms switching from traditional coverage) and the change in the number of insured residents in Massachusetts. This latter figure includes employees and their dependents.

We also quantify, where possible, the social benefits attributable to expanded health insurance coverage via association health plans.

The Role of Intermediaries

Massachusetts regulations (211 CMR Section 66.08) stipulate that an insurance carrier providing coverage to small employers through an intermediary (chamber of commerce, trade association, etc.) may apply a discount factor to the total premium for each business. This stipulation encourages small firms to enroll through an intermediary, but its potential is limited due to the constraints placed on the allowable discount factor:

The factor must be calculated to account only for the savings to the carrier due to the administrative and marketing activities of the intermediary which are related to the purchase of health benefit plans for its members from that carrier. The factor may not be calculated based on the claims experience, duration of coverage, health status or case characteristics of the eligible small businesses enrolled in the carrier's health benefit plan through the intermediary. The discount may be negotiated between the carrier and each individual intermediary according to the range of services offered by each intermediary.³⁶

This feature of the law prevents small employers from enjoying the full potential of association membership. By prohibiting a group discount factor, achieved through enhanced buying power or risk-pooling, it limits the ability of small group pools to negotiate lower rates and relegates them to little more than outsourced administrative staff. Intermediaries interact with carriers like a group of small employers rather than a one large group. While small employers are relieved of the excess administrative burden (which they are often ill-equipped to handle themselves), the intermediary is generally forced to charge a fee for the service – eliminating any “intermediary discount factor.” Again the crucial role of market share applies; as membership expands, economies of scale in the administration of health plans would create efficiencies that may be parlayed into lower premiums for members. The discount factor, if relieved of its unnecessary restrictions, provides a logical starting point for drawing the blueprint of a small group purchasing pool in Massachusetts.

Elements of a Purchasing Pool

In order to model the effects of a small group purchasing pool it is necessary to outline the plan's key elements. This is particularly relevant in regard to the plan's rating system. For instance, the market's reaction to an AHP that allowed medical underwriting would be drastically different from its reaction to a community rating-based AHP. We therefore provide a broad outline of the key elements of our theoretical AHP.

Number of Purchasing Groups

There are several questions to be answered in designating the scope of each group. For instance, should a particular group cover a specific district within the state or a specific industry? Or would it be more appropriate to create one large purchasing group through which all small employers could purchase insurance – as California has done?

In terms of simplicity, for insurers and consumers, the fewer active purchasing groups the better. A large number of small pools would have difficulty realizing the gains from economies of scale, bargaining clout and marketing effectiveness. Wicks, Hall and Meyer (2000) suggest that the initial structure of the Florida purchasing pools – 11 geographically distinct units, each with its own staff and facility – created problems. Considering this, as well as the advantages of economies of scale, we suggest that a Massachusetts plan would benefit from limiting the scope to a small number of pools, perhaps one large pool.

Negotiating Premiums

As mentioned above, the primary goal of allowing group purchasing is to provide cost containment – whether that involves reduced premiums or decreased growth in premiums over time. The argument against allowing premium reductions within the pool generally centers on destabilization of the traditional market due to market segmentation. We assume, nevertheless and for reasons already given, that the purchasing pool can negotiate lower premiums.

Federally-certified AHPs have been criticized because they would allow AHPs to avoid mandated benefits and, to some extent, state rate compression regulations. In other words, federally-certified AHPs would provide substantial premium reductions (13% to 15% by some estimates) by providing stripped down benefit packages and medical underwriting. This makes them much more appealing to “healthy” (low-cost) firms than to older, “less healthy” (high-cost) firms. A possible result then is market segmentation, with the traditional market being comprised of older, higher-cost firms. Without the low-cost firms to cross-subsidize their premiums, so the argument goes, prices in the traditional market may increase, leading firms and employees to drop coverage. As mentioned below, we sidestep this issue by assuming a continuation of all mandated benefits.

Finally, the AHP should be allowed to choose specific health plans rather than being forced to accept all offers (as was the case in Florida). This option provides further negotiating leverage to the AHP and may result in more competitive prices throughout the market.

Premium rating within the AHP

As mentioned, we assume that premiums charged to firms within the AHP would be subject to the same community rating system governing the traditional market. Insurance acquired through the AHP would also provide for all state mandated benefits. This will tend to limit the potential premium discount attainable by the purchasing group. This is because it is generally agreed that both community rating and state mandated benefits increase insurance costs. In fact, in modeling the impact of federally certified AHPs, the CBO assumed that by avoiding some mandated benefits AHPs could provide an average savings of 5% to member firms.³⁷

This may actually understate the potential benefits to Massachusetts firms, given the state's generous benefit mandates. For instance, Governor Mitt Romney filed a bill in April 2005 that would allow insurers in the small group market to offer plans with fewer benefits. By allowing larger deductibles and exemption from expensive benefits, administration officials expect insurers to offer premiums costing approximately \$200 per month for individual coverage and \$500 per month for family coverage. This compares with current prices of \$350 and \$750, respectively in the small group market. Nevertheless, at this point the political obstacles to any revision in mandated benefits or community rating in Massachusetts make it seem sensible to assume here that there would be no change in either. Finally, we assume that the AHP could not deny membership to firms or employees based on health status.

Modeling a Purchasing Pool in Massachusetts

Methodology and Assumptions

We model the impact of a small group purchasing pool in Massachusetts by developing a simulation of the regional market. We compiled data on insurance premiums (single and family coverage) by firm size, small firm offer rates, eligible employee enrollment rates, as well as data on the distribution of employees by firm size.

Price Responsiveness

An important aspect of our model involves the anticipated response of both firms and employees with respect to premium prices. How would small employers react to a change in premiums? More specifically, how many previously uninsured firms would add coverage due to a drop in premiums and how many firms would switch from traditional coverage? How likely are employees to take up coverage if their portion of insurance premiums were to fall? Modeling the effects of an AHP requires various assumptions regarding the behavior of these market participants.

Community Rating in the Massachusetts Small Group Market

Massachusetts insurance regulations apply a “modified” community rating system to the small group market. In a community rating system, premiums are based on a combination of the average cost of actual and anticipated health services in a geographic area or industry rather than variables such as claims experience, sex, or health status of the covered population. Community rating thus spreads the cost of illness more evenly over the entire community.

In Massachusetts, premiums charged to every eligible small business must be set using a uniform base premium rate. No base premium rate charged by an insurer during a rating period may exceed two times the lowest group base premium offered by the insurer. In other words, regulations stipulate a maximum allowable premium band of 2:1.

The Division of Insurance regulations (211 CMR 66.08) allow rates to vary based on the age of employees, the industry, size of firm, and employee participation rates. Additionally, rates may be adjusted for the benefit level, location of the firm, an intermediary discount, and a wellness program discount.

Insurers in Massachusetts may not base premium rates on an eligible business’ health status, duration of coverage, or actual or expected claims experience.

Insurers participating in the market must make plans available to all eligible small groups and give every purchasing group the option of renewing a plan (with the exception of insurers leaving the market).

The literature on small firms’ decisions to offer health insurance indicates that they are quite responsive to price changes – much more so than large firms. To quantify price responsiveness, economists use a measure of sensitivity known as the price elasticity of demand. This measure provides an estimate of the percentage change in quantity demanded as a result of a one-percent change in a good’s price. For instance, consider the market for long distance airfare. We would expect a relatively high (in absolute terms) elasticity of demand for long distance airfare, say, -2.4. This means that if ticket prices were to increase by 1%, travelers would postpone vacations, pick alternative means of transportation, etc., so that the demand for airline tickets would decline by 2.4%.

As a baseline estimate, we assume an average price elasticity of -1.1 for previously uninsured firms – a value arrived at by the Congressional Budget Office (CBO). This means that if, for example, premiums were to drop by 1% we would expect a 1.1% increase in the number of firms offering insurance. This is, however, only one point estimate and it would be oversimplifying things to assume that this value was indisputable. In fact, a number of studies focusing on the demand for health insurance have yielded a range of estimates of the price elasticity of demand for insurance. Feldman et al. (1997), using data on 2,000 small firms in Minnesota, found estimates ranging from -3.91 for single coverage to -5.82 for family coverage. Blumberg et al. (2003) report elasticities for small firms ranging from -0.40 to -1.89. In a more recent study, Gruber and Lettau (2004) find a much lower elasticity of -0.25 for all firms offering insurance. They point out, though, that small firms (less than 100 employees in their analysis) are much more responsive to price. They estimate an elasticity of over -0.50 for small firms. Another useful mid-range estimate by Morrisey, Jensen and Morlock (1994) found a premium elasticity of -0.92.

This wide range of values found in the literature necessitates some form of risk analysis. It would not be enough to simply take a single point estimate and simulate the results based on that assumption. Because the price responsiveness is vital to the modeling, we allow the average firm elasticity of demand to vary with each simulation of our model. We then estimate the model 10,000 times and capture the results for each simulation. The results of this exercise provide us with a range of likely outcomes as well as an average outcome (the mean results). This type of modeling is known as “Monte Carlo analysis.”

We start with the general midpoint from the literature (and the CBO estimate) of -1.1 as our baseline. We then allow it to move as high (in absolute terms) as -1.89 and as low as -0.50. This range generally accommodates all but the outlying estimates from the literature.

To simulate the decision making process of firms currently purchasing insurance in the traditional market, we assume an elasticity of -1.54. This means that a 1% drop in premiums would lead 1.54% of firms currently purchasing insurance in the traditional market to switch to AHP coverage. This is the elasticity used in the CBO (2000) analysis. We allow this to vary within a band ranging from -2.60 to -0.30.

Premium Reductions

As previously mentioned, a circular relationship exists between market share and premium reductions. As market share increases, the bargaining power and administrative efficiencies increase, resulting in lower premiums. Additional savings on premiums will encourage further enrollment in the purchasing pool.

In the model, it was necessary to treat one of the variables (either market share or premium reductions) as exogenous. As the two are inextricably linked, either one can be treated as exogenous. We consider premium reductions to be exogenous in our model, given that they could be negotiated prior to an association's offering insurance. This is indeed what has occurred in the California purchasing pool.

By some estimates, premiums in small Massachusetts firms are, on average, 13% higher than those in large firms. More conservative estimates put the difference at roughly 4% to 5%. We use these estimates to help bind our potential premium discount. We assume that premium discounts (AHP versus traditional market premium) could range as high as 7.27%, but are much more likely to be less than 4%.

Our mean estimate for this premium discount is 3%. By comparison, Kaiser estimates that COSE prices are 2% to 3% lower than those in the traditional market.³⁸ We assume that this is generated through administrative savings and negotiated "volume discounts" and corresponds to a mean market share of 5.23%. We assume a normal distribution with a standard deviation of 0.75%.³⁹ This allows, through the Monte Carlo simulation, the percentage drop in premiums to range from 0 to 7.27%. This roughly approximates a range in market share of 0 to 13%. While we allow the premium discount to rise as high as 7.27%; in practice 90% of the simulations employ a discount factor below 4%.

Employee Demand

Economists have estimated premium responsiveness at both the firm and employee level. We include both estimates in our model in an attempt to incorporate participants' behavior. Firms may increase offer rates, but without knowledge of employees' responsiveness to premiums we don't know whether employees will enroll. Thus we need some knowledge of employees' responsiveness to premiums.

In Massachusetts, the premium elasticity of employees was found to be -0.212, very close to a national estimate of -0.203.⁴⁰ This means that, a 1% drop in the employee portion of premiums, for instance, would increase the take-up rate by 0.212%. In our model, we apply this Massachusetts-based elasticity to predict employee response to our expected premium discount.

Main Findings

Our findings, summarized in Table 3, are the mean estimates of our "Monte Carlo analysis" of AHP penetration in Massachusetts. Our analysis concludes that an AHP has the potential to provide coverage to 83,575 employees and their dependents. Based on our assumptions regarding the expected reduction in

premiums, we estimate that 10,258 firms would purchase insurance through the AHP, including 4,273 that previously did not offer insurance. We estimate that insurance coverage would be extended to 24,822 previously uninsured Massachusetts residents (including 14,687 small business employees).

Table 3. Estimated Effects of AHP/Pooled Purchasing Groups in Massachusetts

	Baseline Case	Mean
Small Firms in Massachusetts	196,404	196,404
<i>Of Which:</i>		
Offer Insurance	129,627	133,900
(% offering)	66.0%	68.2%
Small Firm Employees	1,237,484	1,237,484
Offered insurance	894,701	924,226
Enrollment rate of eligible employees	76.00%	76.48%
Enrolled in AHP		
Firms	0	10,258
Previously Did Not Offer Coverage		4,273
Persons	0	83,575
Previously Uninsured, <i>of which:</i>		24,822
Small business employees		14,687
Average Premiums (available to AHP members)		
Single	3,888	3,784
Family	10,284	9,956
Uninsured, <i>of which:</i>	460,000	435,178
Small business employees	165,581	150,894

Note: Mean based on 10,000 simulations

IV. Implications

The changing pattern of insurance coverage following the introduction of a small group purchasing pool in Massachusetts will have a far reaching impact on the state. As premiums become more affordable and previously uninsured firms and employees begin to purchase coverage, total insurance spending in the state will rise. This will be offset, partially, by the decreased spending by currently insured employees that because of the existence of the AHP will now enjoy lower premiums. Finally, as insurance enrollment in the state increases, the cost of caring for the uninsured will fall. We address each of these points in this section.

Changes in Spending Due to Expanded Coverage

Premium Spending

The model simulates the reaction of employers and employees in the small group market to falling premiums. We estimate that the mean drop in premiums of 3% will lead over 4,200 previously non-offering firms to offer coverage through the AHP. This increase in the number of firms offering health insurance is estimated using empirical measures of firms' sensitivity to prices of premiums, or price elasticities. We find that over 14,600 previously uninsured employees will purchase coverage. It is necessary to make an important distinction here. Employees at previously non-offering firms are not necessarily uninsured. Some percentage of these will obtain coverage through a spouse or purchase individually. We estimate, based on Massachusetts data, that 30% of employees that did not receive coverage through their employer are uninsured. In other words, 70% of these employees receive coverage elsewhere.

This increase in insurance coverage results in increased spending on premiums. We estimate, based on the split between single and family coverage, that previously uninsured Massachusetts workers will spend \$118.3 million on insurance premiums annually. Employers and employees switching from traditional coverage will save an estimated \$5.1 million on insurance premiums as they take advantage of the intermediary discounts. Thus, statewide we anticipate an increase in insurance spending of approximately \$113 million annually.

Uncompensated Care Costs

There is a considerable amount of research that examines the cost of caring for the uninsured. In Massachusetts, the figure is generally thought to range from \$900 million to \$1.4 billion.⁴¹ Assuming roughly 400,000 uninsured adults in the state, Holahan et al (2004) estimate the per capita cost of providing medical care to these adults to be \$2,318. Applying this figure to our estimates yields an annual savings of \$47.6 million on caring for the uninsured.

Economic Benefits of Expanded Coverage

While useful as an indicator of out-of-pocket costs, these figures do not represent the true economic costs to society. Instead they are mostly transfers from one segment of society to another. The true economic costs of uninsurance would include such items as diminished public health and lower workforce productivity.⁴² Recently, the Institute of Medicine's (IOM) Committee on the Consequences of Uninsurance attempted to quantify these social costs.⁴³

The IOM’s analysts considered the health status of the uninsured compared with the health of the insured population, while attempting to allow for (observed and unobserved) differences between the two groups. The goal was to measure the difference in “health capital” – a term used to capture various aspects of an individual’s health – and monetize this by determining the value people place on improving health status. The result is a measure of the discounted value of reduced health status due to the lack of insurance coverage. The IOM estimates that the average uninsured person forgoes between \$1,645 and \$3,280 “health capital” each year without health insurance.⁴⁴ This implies that nationwide, with roughly forty million uninsured, the economic costs range from \$65 to \$130 billion. In Massachusetts (460,000 uninsured) the range is \$757 million to \$1.5 billion (in 2001 dollars).

Using these estimates (updated to 2005 dollars), we provide a range of economic benefits attributable to the expansion of health insurance through association health plans. Table 4 summarizes the benefits. The mean estimate assumes an enrollment of 24,822 previously uninsured employees and dependents. The upper and lower bounds are established by the IOM estimates.

Table 4. Economic Benefits of Expanded Health Coverage

Value of Health Benefits	Mean
Lower-Bound	\$44,411,263
Upper-Bound	\$88,552,747

Expansion of Plan Choice

One of the benefits of a Massachusetts AHP that is not easily quantifiable, but extremely desirable and valuable nonetheless, is the expansion of health plan choice for enrollees. As noted earlier in the three cases of California, Florida and Connecticut, large reductions in premiums may not always materialize, but the evidence is overwhelming that the AHP will be able to deliver health plan choice to all its enrollees.

The ability to provide choice may, in some cases, be more important to an individual than a significant reduction in premiums. A small business employee may see enrollment in an AHP as beneficial even if his or her premium remains the same. Enrollment in an AHP, in this case, is still desirable because the employee will now be able to choose a plan that specifically addresses his or her particular medical need, at no additional cost. This benefit of additional choice is easy to lose sight of when analyzing possible

effects on premiums, but should not be overlooked when considering the value of providing for an AHP in Massachusetts.

V. Conclusions

The goal of extending health insurance coverage to the estimated 460,000 uninsured Massachusetts residents has prompted healthcare proposals from both Governor Romney and Senate President Travaglini. Underlying much of this debate are the very real problems facing the small group market. There seems to be a general consensus that there are serious problems that must be addressed. Many small business employers are finding that increased healthcare costs have forced them either to pass more costs on to their employees or to drop coverage altogether. To deal with this growing problem, some have called for new regulations that would pass the burden to taxpayers or force firms to absorb these costs – unrealistic and short-sighted alternatives that would have detrimental effects on the state economy.

Another option exists, one that should be part of any new healthcare reforms in Massachusetts – Association Health Plans. An AHP has the potential to bring much needed stability to the small group market. By pooling together the purchasing power of the state's small employers and centralizing the administrative duties, an AHP can help extend affordable health insurance to the state's working uninsured. Firms purchasing insurance through an AHP will be able to provide a more extensive option of benefits to their employees and relieve them of the costly administrative tasks which they are often ill-equipped to handle on their own.

While costly regulations regarding mandated benefits and community rating limit the potential premiums savings attainable by small employers, a purchasing pool is likely to provide some savings and further price stability. Furthermore, it would relieve small employers of administrative burdens while expanding employee choice. Small group purchasing pools, while unlikely to solve all the problems facing the uninsured in Massachusetts, are a logical and positive contribution to healthcare reform in Massachusetts.

Endnotes

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- ³ Paul J. Cote, Jr., “Health Insurance Status of Massachusetts Residents,” The Division of Health Care Finance and Policy, Commonwealth of Massachusetts, November 2004, Page 9.
- ⁴ *Ibid.*, 11.
- ⁵ Massachusetts Division of Health Care Finance and Policy, “Health Insurance Survey of Massachusetts Employers: Comprehensive Results from Employer Survey,” 2003.
- ⁶ *Ibid.*
- ⁷ J.F. Sheils, P Hogan, and N. Manolov, “Exploring the Determinants of Employer Health Insurance Coverage,” *The Lewin Group, Inc.*, January 20, 1998.
- ⁸ Joe Burton, Maria Schiff, Maxine Shuster and Heather Shannon, “The Link Between Employment and Health Insurance,” *Healthpoint: Information from the Division of Health Care Finance and Policy*, Number 15, October 1999.
- ⁹ *Ibid.*, 1.
- ¹⁰ *Ibid.*, 1.
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- ¹² For a thorough discussion of the early small group purchasing cooperatives see: Elliot K. Wicks, Mark A. Hall, and Jack A Meyer, “Barriers to Small-Group Purchasing Cooperatives: Purchasing Health Coverage for Small Employers,” *The Economic and Social Research Institute*, March 2000.
- ¹³ Jill Mathews Yegian, Thomas C. Buchmueller, Mark D. Smith and Ann F. Monroe, “The Health Insurance Plan of California: The First Five Years,” *Health Affairs* 19, no. 5, (September/October 2000): 159.
- ¹⁴ *Ibid.*, 159.
- ¹⁵ U.S. General Accounting Office, *Cooperatives Offer Small Employers Plan Choice and Market Prices*, (Washington, D.C.: GPO, March 2000).
- ¹⁶ Elliot K. Wicks and Mark A. Hall, “Purchasing Cooperatives for Small Employers: Performance and Prospects,” *The Milbank Quarterly* 78, no. 4, (2000): 522.
- ¹⁷ Premium quotations obtained by the GAO in 2000 indicate that the PHA premiums may actually be slightly higher than the rest of the market, but this does not control for the true actuarial value of each plan.
- ¹⁸ Wicks and Hall, 517.
- ¹⁹ Yegian, et al., 160.
- ²⁰ *Ibid.*, 161.
- ²¹ Wicks and Hall, 517.
- ²² See Wicks and Hall, citing Lazarus and Associates study in *An Evaluation of Florida’s Small-Group Health Insurance Reform Laws*, Wake Forest University School of Medicine, December 1998, page 40.
- ²³ Long and Marquis, 156.
- ²⁴ Wicks, et. al., 83.
- ²⁵ *Ibid.*, 83.
- ²⁶ *Ibid.*, 85.
- ²⁷ This particular point is also made in Mark A. Hall, Elliot K. Wicks, and Janice S. Lawlor, “Healthmarts, HIPCs, MEWAs, And AHPs: A Guide for the Perplexed,” *Health Affairs* 20, no. 1, (Jan/Feb 2001).
- ²⁸ *Ibid.*, 543.
- ²⁹ Wicks, et. al., 122.
- ³⁰ *Ibid.*
- ³¹ *Ibid.*, 17.
- ³² *Ibid.*, 117.
- ³³ *Ibid.*, 18.
- ³⁴ As Tollen and Crane (2001) point out, “Despite purchasing pools’ difficulties in reducing prices...such pools persist. Clearly, members value the increased choices and administrative ease offered by the pools.
- ³⁵ *Ibid.*, 7.
- ³⁶ Massachusetts Division of Insurance, Small Group Health Insurance Regulations: 211 CMR 66.00.

³⁷ The CBO allowed this figure to vary from 1% to 15% in its modeling.

³⁸ Wicks, Hall and Meyer, 86-87.

³⁹ Use of the lognormal distribution is useful as it allows for a continuous, but partially bounded distribution. In other words, negative values are not allowed.

⁴⁰ Massachusetts Division of Health Care Finance and Policy, "Premium Increases Affect Health Insurance Coverage," *Analysis in Brief*, November 2001, Number 3:1-3.

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⁴² Wilhelmine Miller, Elizabeth Richardson Vigdor, and Willard G. Manning, "Covering the Uninsured: What is It Worth?," *Health Affairs Web Exclusive*, March 31, 2004.

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⁴⁴ Miller et al: W4-161.

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Founded in 1991, BHI is an independent, nonpartisan economic research organization, located within Suffolk University in Boston, that applies a market-clearing approach to the analysis of tax, fiscal and regulatory issues. In addition to analyzing tax policy, we study issues including education spending, charitable tax incentives, universal healthcare, tort reform and economic competitiveness. BHI develops innovative solutions and applies economic analysis to public-policy issues affecting the states and the nation.

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