

# Covering America

REAL REMEDIES  
FOR THE UNINSURED

## **Cost and Coverage Analysis of Ten Proposals To Expand Health Insurance Coverage**

John Sheils  
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*Appendix I*

### **Near-Universal Coverage Through Health Plan Competition: An Insurance Exchange Approach**

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OCTOBER 2003

*Covering America* is  
funded by a grant from  
THE ROBERT WOOD  
JOHNSON FOUNDATION

and directed by the  
ECONOMIC AND SOCIAL  
RESEARCH



*The* LEWIN GROUP

## **Sara Singer, Alan Garber, & Alain Enthoven Plan**

The authors propose to create a refundable tax credit for the purchase of coverage by low- and middle-income persons. They also propose to create “insurance exchanges” throughout the country to provide individuals with a choice of coverage alternatives and to promote competition among health plans. The tax credits would be provided only to persons who obtain coverage through an exchange.

Employers could continue to provide coverage. Employers also would be permitted to establish themselves as exchanges by meeting certain requirements so that their low- and middle-income workers can qualify for the tax credits. The current Medicaid and SCHIP programs would be retained, although eligible individuals would have the option of obtaining coverage through the exchanges with the help of the tax credit. The authors’ proposal would also phase-in a cap on the value of the employer health benefits exclusion.

In this section, we summarize the key components of the authors’ proposal and present our key assumptions. We then present our estimates of the impact of this proposal on coverage and costs and explore the sensitivity of our estimates to assumptions on managed competition savings. Our analyses are presented in the following sections:

- Proposal features;
- Key assumptions;
- Program impacts estimates; and
- Sensitivity analyses.

### **A. Proposal Features**

#### **1. Tax Credits**

Refundable tax credits would be provided to lower- and middle-income persons obtaining coverage through insurance exchanges. Individuals with coverage through an employer plan that qualifies as an exchange would have the choice of taking the tax credit or the health benefits exemption for employer coverage, the amount of which would be capped as discussed below.

- Individuals with incomes up to \$31,000, and families up to \$51,000, who obtain insurance through an insurance exchange, would be eligible for a fully refundable tax credit. These credits would be phased-out on a sliding scale with income for individuals with incomes between \$31,000 and \$41,000 and for families with incomes between \$51,000 and \$61,000.

- The tax credit would be equal to 70 percent of the premium cost of the median cost plan for single coverage in the prior year. The maximum amount for dual coverage would be equal to twice this amount and the amount for family coverage would be equal to 2.6 times this amount. The amount of the credit may not exceed the actual amount of the premium.
- The median cost plan would be determined by a federal commission and adjusted for regional variations in costs.
- Medicare-eligible individuals would not be eligible for the tax credit. We also assume that CHAMPUS enrollees are ineligible for the credit.

## **2. Cap on Tax Exclusion**

A cap on the maximum allowable employer health benefits exclusion would be phased-in over a 10-year period.

- The health benefits exclusion would continue to be available to all persons with employer coverage regardless of whether the employer coverage qualifies as an exchange (discussed below).
- In the first year of the program, the amount of the exemption (including the shares paid by the employer and the employee) is capped at 200 percent of the national median plan premium in the prior year as determined by a newly formed federal commission.
- The national median cost plan amount would vary by type of coverage (i.e., single, family etc.) and would be adjusted to reflect regional differences in premiums.
- The cap on the premium exemption would be gradually reduced each year so that after the ninth year, the cap would be equal to 105 percent of the median cost plan.
- We assume no changes in the section 125 flexible spending accounts for health care expenditures.

## **3. Insurance Exchanges**

A newly created federal authority would certify “insurance exchanges” across the nation that would be responsible for purchasing insurance and disseminating information.

- Exchanges must offer the choice of a minimum of two different health plans, from a minimum of two independent insurers.
  - Each exchange would require participating plans to offer some standardized benefits to facilitate comparison.

- Each plan would provide at least one product with coverage for most providers in the region, and another low-priced alternative.
- Plans also would be permitted to offer other packages including more comprehensive plans and lower-cost plans with more restrictive choices or catastrophic coverage.
- Health plans within the exchanges would be given the same protections as self-funded plans. This would exempt these plans from state-mandated benefits.
- Exchanges would be required to implement a risk adjustment system to adjust for the health status of persons who enroll in the various plans offered within each exchange.
- In areas with multiple exchanges, a federal authority would also implement a risk adjustment system across exchanges in each region or state, including employer exchanges.
- A national “U.S. Insurance Exchange” would be created to enroll individuals and groups with less than 50 workers in areas where exchanges have not developed.
- Exchanges are required to accept all applicants from the area, except those who are Medicare-eligible. Premiums would be community rated, with adjustments only for type of coverage.

#### **4. Employer Exchanges**

Employers have the option of establishing an exchange or providing coverage under the same rules that apply in the current system.

- Employer health benefits programs would qualify as an exchange if they meet the following criteria:
  - Offer coverage to all full-time employees;
  - Provide a choice of plans including at least two products from at least two independent insurers;
  - One of the plans offered by each participating insurer should be a standard benefits package, which is intended to facilitate comparison;
  - The exchange must provide risk adjustment;
  - Establish minimum quality standards; and
  - Make plan comparison data available to participants.
- Becoming an exchange permits eligible workers to receive a tax credit. As discussed above, workers would be permitted to choose between the credit and the current health benefits tax exemption (subject to the cap described above).

- Employers that form exchanges would be required to participate in risk adjustment across exchanges to avoid risk selection due to the fact that establishing an exchange is optional to the employer.
- Employer plans that do not become exchanges would face the same laws and regulations that apply in the current system including:
  - Self-funded plans would continue to be exempt from state regulation under ERISA;
  - Fully-insured plans would continue to be subject to state regulation, including benefit mandates;
  - The tax exclusion of employer-provided health benefits would continue but would be capped as described above.

### **5. Default Enrollment**

States would receive funds to cover persons eligible for the full credit who do not enroll in a plan. These individuals would be considered “enrolled” in a default plan even though the state cannot identify most of the people in this group. States would typically use the funds provided by the federal government to provide direct services to eligible persons.

- States would establish a default plan of health services of their own design to automatically insure low-income persons (up to \$31,000) and families (up to \$51,000) who fail to enroll in a plan.
- Each state would receive 50 percent of the value of the unused tax credits for eligible individuals that remain uninsured. This would be estimated for each state because the state would not know who in the state meets the income requirements and remains uninsured.
- These funds would be used to pay for services provided to these individuals through public hospitals and other programs for the medically indigent.
- State payments for the uninsured would be increased/decreased based upon improving/declining health performance measures such as rates of pre-natal care, vaccination rates, and avoidable hospitalization rates.

### **6. Disposition of Medicaid**

Medicaid and SCHIP would continue in their current form. However, persons eligible for these programs would have the option of enrolling in an exchange plan with the help of the tax credit.

Persons eligible for but not enrolled in Medicaid or SCHIP would be able to obtain benefits through the “default plan” model described above.

## **7. Financing**

The only new revenues specified under the proposal come from capping the employer health benefits exclusion. The remainder of the program would be funded with unspecified “general revenues.” We assume that these funds would be obtained through an increase in the personal income tax.

### **B. Key Assumptions**

The authors’ proposal includes several voluntary elements that together determine the level of coverage and public spending under the program. For example, while the subsidies provided under the program expand access to coverage, employers are not required to contribute to the cost of worker coverage and individuals are not required to have insurance. Also, individuals generally would have a choice of health plans with financial incentives to enroll in cost-efficient plans, which would affect program spending. Therefore, to estimate the impacts of this program, we needed to simulate the choices made by employers and consumers subject to the various incentives created under the proposal.

These estimates were developed using the Lewin Group Health Benefits Simulation Model (HBSM), which is based upon data from the 1996 Medical Expenditures Panel Survey (MEPS) and the 2001 Current Population Survey (CPS). Workers in these data are also matched to individual firms in the 1999 Kaiser/HRET Annual Employer Health Benefits Survey to enable us to model the impact of firm-level decisions affecting worker coverage. The data and methods used are presented in *Appendix A*. The key assumptions used to simulate this proposal are presented below in the following sections:

- Employer coverage decision;
- Coverage effects of tax credit;
- Impact on individuals currently with non-group coverage;
- Administrative costs;
- Managed competition effects;
- Capped tax exclusion;
- Default providers; and
- Wage effects.

#### **1. Employer Coverage Decision**

The program does not require employers to offer coverage to their workers. However, it does offer an alternative to private coverage that often would be less costly than

comparable coverage in the private market, which could induce some non-insuring employers to offer coverage. It also gives insuring firms the option of continuing with their private coverage or shifting to an exchange.

In this analysis, we make no distinction between an employer exchange and the regional exchange. This is because the program includes a risk adjustment methodology that effectively pools costs for all exchanges in a region, including those established by employers. Thus, premiums across all exchanges in a region in effect would be community rated.

In this analysis, we estimated the number of firms that would be induced to offer coverage and the portion of the workforce that would shift to the exchanges. The methods used to simulate these effects are summarized below.

**Creation of Synthetic Firms:** The simulation of the employer coverage decision was based upon a database of “synthetic firms” developed using HBSM. Each worker in the MEPS data was assigned to one of the employers in the 1999 Kaiser/HRET data. We then “populated” the firm to which each worker has been assigned by randomly selecting MEPS workers who match the economic and demographic profile of persons employed by that firm.<sup>1</sup>

For example, the firm assigned to a given MEPS worker that has 5 employees would be populated by that worker plus another four MEPS workers chosen at random who also fit the employer’s worker profile. If this individual is in a firm with 1,000 workers, he or she is assigned to a Kaiser/HRET employer of that size and the firm is populated with that individual plus another 999 MEPS workers. This process is repeated for each worker in these data to produce one synthetic firm for each MEPS worker.

Health care costs for the group are assumed to be equal to the individual worker’s costs plus the costs for other persons assigned to the firm. Costs also include expenditures for dependent spouses and children. This approach assures that the costs for each synthetic firm reflects the actual level of utilization for each MEPS worker, plus the others assigned to the firm.<sup>2</sup> In addition, information on the incomes of persons assigned to each synthetic firm is also used to estimate the amount of the tax credits available to firm employees.

The private coverage premium for each synthetic firm is determined as follows:

- For self-funding firms, the “premium” is equal to the average cost per worker assigned to each firm for single and family coverage.

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<sup>1</sup> The Kaiser/HRET data provide information on the wage profile, industry and firm size characteristics of each firm. We then statistically matched these data with the 1991 employer survey conducted by the Health Insurance Association of America (HIAA), which provides additional demographic detail including age, gender, part-time/full-time status, and family/single covered status.

<sup>2</sup> The method for developing synthetic firms is described in detail in Appendix A of this report.

- For fully insured firms, premiums are based upon a simulation of small-group premium rating in each state including community rating, age rating, rating bands and experience rating for firms in markets without small group rating limits.

We estimated the premium in the exchanges and for each synthetic firm assuming a uniform benefits package that we based upon the benefits provided through the Federal Employees Health Benefits Program (FEHBP). As discussed above, we have assumed that the premiums in regional exchanges would be community rated. There would be no differences in premiums by age, for instance. Premiums in the exchange were estimated based upon the health care utilization of MEPS persons who would be enrolled in these exchanges.

**Employer Decision to Offer Coverage:** The community-rated premium in the exchange often would be less than what some employers now face in the insurance market. Some non-insuring firms are likely to respond to this “lower price” option by offering insurance in the exchange.<sup>3</sup>

We simulated the impact that this would have on the number of employers sponsoring coverage based upon a Lewin Group multivariate analysis of the relationship between premiums and the likelihood of providing coverage, which is based upon the 1997 survey of employers sponsored by the Robert Wood Johnson Foundation (RWJF). These analyses show employer price elasticity estimates ranging from –0.46 percent for firms with under 10 workers to -0.07 percent for firms with over 1,000 workers.<sup>4</sup>

We simulate this uptake in coverage in the following steps:

- For each synthetic non-insuring firm in the model, we estimated the cost of coverage in the current market, which reflects the health services utilization characteristics of persons assigned to these employers and the rating rules in their state (see discussion above);
- We then calculated the premium for the group in the exchange using the community-rated premium;
- In cases where the cost of coverage for the group under the community-rated exchange is less than the premium they now face, firms are randomly selected to enroll based upon the price elasticity estimates described above;
- The portion of the premium paid by the employer is estimated for every firm that is simulated to offer coverage based upon a multivariate analysis of employer contribution levels as reported in the 1997 RWJF data; and

<sup>3</sup> This would tend to occur among firms with proportionally greater numbers of older and sicker workers who are facing high experience-rated premiums.

<sup>4</sup> For example, in a firm with 10 or fewer employees, a reduction in the price of insurance of 1.0 percent is associated with an increase in of 0.46 percent in the number of these firms offering coverage.

- Workers who are offered coverage in these newly insuring firms are selected to enroll based upon a multivariate analysis of MEPS data on employee take-up rates in employer-sponsored plans by worker characteristics and employee contribution requirement (take-up rate averages about 95 percent).

**Employer Participation in Exchanges:** We assume that all employers that offer insurance would either establish their own exchange, or enroll their workers in the regional exchange. We assume that insuring firms with fewer than 25 workers would enroll in the regional exchange due to the cost of establishing their own exchange. For all other insuring employers, we assumed that employers would enroll in the regional exchange if this is less costly than covering their workers under their own employer exchange.

We simulated the migration of currently insuring employers to an exchange based upon the assumption that employers would seek the most efficient compensation package possible for their workers, given the available options. We simulated the employer's decision to participate in the exchange by comparing the firm's estimated private coverage premium (discussed above) with the exchange premium, minus the tax credits that eligible workers would receive. This comparison reflects the fact that employers must provide coverage through an exchange for their lower-wage workers to receive premium subsidies.

Employers are assumed to shift to the exchanges when this is less costly than private coverage.<sup>5</sup> This would typically occur among employers with low-wage workers who qualify for the credit and among firms with older and sicker employees who face higher premiums in the private market. This would result in some adverse selection into the exchanges resulting in higher exchange premiums.<sup>6, 7</sup>

**Benefit Variations:** The authors' plan would not establish a minimum benefits package, resulting in a range of coverage options available through the exchanges. To reflect the likely variation in coverage purchased in the exchange, we assume that the plans purchased in the public pool are similar to those of the private plan they now have. We simulated this by assuming that the benefits covered under the exchange for employer groups would be the same as they would be under their current plan (i.e., currently covered services).

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<sup>5</sup> As discussed below, we assume that any savings to the employer resulting from this would be passed on to the worker in the form of increased wages so that there is no net change in total employer compensation costs (which is assumed to be determined in the labor markets).

<sup>6</sup> Adverse selection is the accumulation of a disproportionate share of high-cost cases in a given health plan.

<sup>7</sup> The exchange premium is then recomputed to reflect the employers who shift to the exchange. The employer choice is then simulated once more to arrive at the estimated allocation of workers in and out of the exchange. We do not simulate any potential premium spirals beyond this second round of the simulation.

## 2. Coverage Effects of Tax Credit

The tax credits created under this program would effectively reduce the cost of insurance to persons who qualify, resulting in an increase in the number of persons who take coverage. Our first step in modeling this approach is to estimate the premium that uninsured persons now face in the insurance market. We then estimate the premium that these individuals would pay in the exchange net of the tax credit that they are eligible to receive. We then estimate the portion of affected persons who are induced to purchase coverage.

**Computation of Tax Credit Amounts:** Under the proposal, the tax credit amount for a single individual is equal to 70 percent of the median cost plan premium for individual coverage. The tax credit for married couples would be equal to twice the credit amount for individuals, while the credit for family coverage would equal 2.6 times the credit for individuals.

We used HBSM to estimate the average cost of coverage for persons who would qualify for individual coverage under the program. Using this estimate, we calculated the following tax credit amounts:

Individual coverage	\$217.20/month
Dual Coverage	\$434.40/month
Family Coverage	\$564.71/month

Under this proposal, persons with employer coverage would be permitted to take the greater of the current tax exclusion or the credit amount. We were able to simulate this directly using the income and tax data included in the HBSM input data.

**Sensitivity of Coverage to Premium Levels:** We estimated these changes in coverage using a multivariate model of private coverage, which reflects the impact that changes in premium amounts have on coverage. Although the estimated impact of changes in premiums on coverage varies with the income and demographic characteristics of affected persons, this model shows that, on average, a one percent decrease in premiums is associated with an increase in coverage of about 0.34 percent.<sup>8</sup> The increase in coverage among currently uninsured persons was estimated based upon the reduction in the net cost of insurance for these persons resulting from the newly available exchanges and the tax credit.

In both cases, we estimate the increase in the number of persons with coverage based upon the change in the price of insurance to the individual. This requires us to estimate both the premium that the uninsured face in the current insurance market and what they would pay under the proposal net of tax credits. This was done separately for persons who do not have access to employer-sponsored coverage and workers who have declined the coverage available to them through their employer.

<sup>8</sup> The percent change in coverage resulting from a one-percent change in price is called “price elasticity. This elasticity is properly expressed as  $-0.34$ .

**People Without Access to Employer Coverage in the Exchange:** We estimated the premium for these individuals in the current market for a specified benefits package. Because medical underwriting is common in the individual market, we estimated the premium that these individuals are facing based upon HBSM estimates of average costs for persons by age, gender and self-reported health status. At this stage, estimates assume a benefits package based upon those offered in the FEHBP, as discussed above.

We then estimated the premium they would pay the exchanges based upon an HBSM estimate of the community-rated premium for persons potentially covered under these exchanges assuming the same benefits package. We subtract from this the amount of the tax credit that they are eligible to receive, given their income and insurance unit status (i.e., single, family etc.).

**People With Access to Employer Coverage in the Exchange:** The current cost of insurance for uninsured persons who have declined employer coverage is assumed to be equal to the employee share of the premium reported for the Kaiser/HRET firm to which they are assigned.<sup>9</sup> The premium in the exchange would be the employee contribution amount for workers in firms that are simulated to enroll in the exchange (discussed above) less the tax credit amount that they are eligible to receive.

**Coverage Response:** The increase in coverage is estimated on the basis of the percentage change in premium payment for both groups of affected individuals using the enrollment model discussed above.<sup>10</sup>

### ***3. Impact on Individuals Currently with Non-Group Coverage***

Persons currently purchasing individual non-group coverage also would have the option of enrolling in the exchange. We simulated this decision by estimating the premium that these individuals would pay in the current private market for a given benefits plan. We then assume that these individuals would shift coverage to the exchange if the exchange premium, less the tax credit that they are eligible to receive, is less than our estimate of the premium they would pay in the private market.

A key element in this step was estimating the amount of the premium individuals would pay in the private market. The premium that an individual pays will tend to reflect health status due to age rating and medical underwriting, which is more prevalent in the individual market. We estimated premiums for these individuals by assigning them an average expected cost that varies with age, gender and self-reported health status.

As discussed above, the authors' proposal would not establish a minimum benefits package, resulting in a range of coverage options available through the exchange. To

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<sup>9</sup> Individuals who in MEPS indicate that they declined the coverage that they were offered at work were assigned to employers who offer health insurance who also reported non-enrollment for a portion of the eligible population.

<sup>10</sup> This simulation is repeated twice, each time reflecting the fact that the exchanges would experience adverse selection that would increase the exchange premium.

reflect the likely variation in coverage purchased in the exchange, we assumed that the plans purchased in the public pool are similar to those of the private plan they now have. We simulated this by assuming that the benefits covered under the exchange for persons with non-group coverage would be the same as they would be under their current plan (i.e., currently covered services).

#### **4. Administrative Costs**

Administrative costs in the exchange are assumed to be about 19 percent of benefits costs for the self-employed and non-group enrollees. This rate of administration is based upon the administrative overhead rates experienced in large non-group plans. We assume that administrative costs for employer groups, which vary from as high as 40 percent in small firms to 3.5 percent in the largest firms, would be the same as in existing employer health plans, up to a maximum of 19 percent. This reflects the fact that small groups would continue to be more costly to administer than larger firms, even in the regional exchange.

Administrative costs for the exchanges would include the cost of processing enrollment in the various plans, premium collections where necessary, and payments to health plans. Many of these functions are currently performed by insurers and are accounted for in the insurer administrative costs estimated as described above. In this analysis, we allocated the portion of insurer administrative costs estimated above for functions that would be performed by the exchanges. We assumed that the cost of administering the pool would be equal to about 4.5 percent of covered claims. This is based upon the cost of administration under the California Pac Advantage Program, which provides a selection of health plans for small employers in California (also includes the cost of a risk adjustment mechanism to correct for risk selection).

It is difficult to estimate the cost of administering the premium subsidies under the program. The authors propose to administer subsidies through the exchange and the federal income tax withholding system. This approach is potentially less costly than using a system similar to that used to determine eligibility under the Medicaid and SCHIP programs, which costs about \$190 per family per year.<sup>11</sup> However, we have little information upon which to base an estimate of the cost of administering subsidies under the program.

For illustrative purposes, we made some simplifying assumptions concerning the cost of administering eligibility under the program. For persons without employer subsidized coverage, costs are assumed to equal \$190 per family as under the Medicaid/SCHIP program. For persons with employer coverage, the cost of administering the subsidy is assumed to be half that amount, reflecting the fact that under the proposal, the employer would assist in these functions.

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<sup>11</sup> Estimated from detailed administrative data for the California Medicaid program (i.e., Medi-Cal).

## 5. *Managed Competition Effect*

The author's proposal would require persons in the exchanges to pay the full additional cost of enrolling in plans more costly than the median cost plan in the area. This is accomplished in two ways:

- First, all individuals purchasing coverage through the exchange must pay the full incremental cost of enrolling in a plan that is more costly than the median cost plan;
- Second, over a 10-year phase-in period, the tax exclusion for health benefits is capped at the cost of the median cost plan in the area plus five percent. (As discussed below, we also provide estimates of the impact of this provision assuming that it is fully implemented in 2002).

These policies create incentives for individuals to enroll in lower-cost plans resulting in reduced health spending. We estimated these savings based upon a simulation of the effect that these policies would have on enrollment in managed care plans.

We assume that the program's primary effect would be to shift individuals from fee-for-service (FFS) plans (including PPO or POS plans) to HMOs, where costs are typically lower for a given level of coverage. Based upon available research, we assume that HMOs are about 12.0 percent less costly than fee-for-service plans, which we use as a proxy measure of the increment of cost for staying with a higher-cost plan.<sup>12</sup>

Our approach was to simulate the shift to HMOs based upon the change in out-of-pocket premium payments under the proposal and published price elasticity estimates for health coverage. Premiums were defined as follows:

- **Current policy premiums:** For persons with employer coverage, out-of-pocket premium expenses under current policy were defined to include employee premium contributions less the tax savings resulting from the tax exclusion for the employee contribution. For persons with non-group coverage, the out-of-pocket premium includes the full amount of the premium paid for the policy.
- **Premiums under proposal:** Premiums under the policy are assumed to be equal to current policy premiums plus the amount that an individual would pay above the median cost plan amount to continue with their current FFS coverage. We assume that this amount is equal to 12 percent of the total premium (including employee and employer share) for the FFS plan that they are now in. The authors' proposal eliminates the tax exemption for premiums in excess of the median cost plan plus five percent.

We also assume that the price elasticity for coverage in multiple choice offerings (i.e., plans offering a choice of coverage options) varies with age and health risk, averaging

<sup>12</sup> "New Evidence on Savings from Network Models of Managed Care," (report to the Healthcare Leadership Council), The Lewin Group, Washington, DC, May 1994.

–2.47. (The elasticity ranges from –3.5 for persons under the age of 31 who are at a low risk for health expenditures to –1.38 for high-risk individuals over the age of 45.)<sup>13</sup> Individuals were randomly selected to shift to an HMO based upon these price and price elasticity data.<sup>14</sup> We then assumed that expenditures for these individuals are reduced by 12.0 percent.

We assumed no savings among persons who are currently enrolled in HMOs. Persons who are currently in multiple choice offerings with a fixed employer contribution were also assumed to be less likely to switch to a lower-cost plan because they have already declined to do so despite its higher cost. This assumption was reflected in our estimates by including only the increased tax payments on the employee premium contribution under the program as the increase in costs to the individual for remaining with their FFS coverage.

In addition, based upon the available research, we assume that the rate of growth in health spending is reduced as the percentage of persons enrolled in HMOs increases. Studies indicate that a 10 percent increase in the number of persons enrolled in plans with selective contracting is associated with a reduction in the annual rate of growth in hospital spending of up to 1.5 percent.<sup>15</sup>

## **6. Capped Tax Exclusion Revenues**

As discussed above, the authors propose to impose a cap on the amount of employer-sponsored health benefits that is exempt from taxation. Over a 10-year period, the authors would limit the exclusion to 105 percent of the median cost plan.

We simulated this provision based upon the health benefits information included in the Kaiser/HRET employer data that we have matched to covered workers in the model. We did this by estimating the actuarial value of each plan based upon the scope of benefits and size of deductibles and co-payments.<sup>16</sup> Persons who were assigned to a plan with an actuarial value in excess of 105 percent of the median actuarial value were assumed to face the cap. The amount of the premium payment that is subject to the tax cap was assumed to be equal to the percent by which the plan exceeded 105 percent of the median actuarial plan valuation.

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<sup>13</sup> Strombom, Bruce A., Buchmueller, Thomas C., Feldstein, Paul J., “Switching Costs, Price Sensitivity and Health Plan Choice”, *Journal of Health Economics*, October 2001.

<sup>14</sup> Newly insured persons were randomly assigned to HMOs based upon the percentage of privately insured persons who are in HMOs after we have executed our simulation for currently insured persons.

<sup>15</sup> Robinson, J.C., “HMO Market Penetration and Hospital Cost Inflation in California,” *Journal of the American Medical Association*, 266 (20 November 1991): 2719-23.

<sup>16</sup> We computed the actuarial value of each plan by estimating per member costs for the population in HBSM that is potentially affected by the proposal (i.e., the HBSM population was adopted as the “standard population” for the actuarial valuation).

## **7. Default Providers**

As discussed above, the authors' plan would provide states with additional funding to provide health services to income-eligible persons who remain uninsured. For purposes of the default provider program, eligible persons include those who would be eligible for the full amount of the tax credit (i.e., incomes below \$31,000 single/\$51,000 family) who have not enrolled in an exchange. The amount of funds received by each state would be equal to one-half of the difference between what total tax credit payments for these persons would have been if all enroll and the amounts that would be paid to eligible persons who actually enroll. These funds would be used by states to pay providers for services received by lower- and middle-income persons who do not enroll in an insurance plan under the proposal.<sup>17</sup>

We calculated the amount of the default provider subsidy directly from the model by simulating the tax credits assuming that all eligible persons enroll. The amount paid to states was calculated as one-half of the difference between our estimates of tax credit payments assuming full enrollment and our estimate of what tax credit payments actually would be under the program (i.e., some eligible persons would not enroll). We assume that the default funding would be used primarily to pay for care received by income-eligible persons who remain uninsured.

We assume that this funding would result in a proportional reduction in spending for each of the primary payers for care provided to the uninsured. These include out-of-pocket spending for the uninsured, care currently provided to uninsured persons free by providers (uncompensated care), and care through other public programs. This implies that a portion of the default provider funding would be used as fiscal relief for existing indigent care programs operated by state and local governments (e.g., public hospitals, clinics etc.). The amount of care provided under the default provider program was capped not to exceed the total amount of funding provided to states.

## **8. Wage Effects**

We assume that savings in employer health spending resulting from enrolling workers and dependents in the exchange would be passed on to employees as an increase in wages. We also assume that this would occur among government employers as well, assuming that states would need to remain competitive with private employers for labor. This wage increase would be partly offset by increased income and payroll tax payments.

We assume that changes in employer costs for retiree health benefits would not be passed on to workers as changes in wages. This is because retiree benefits costs are related to prior employer commitments that have little impact on the current labor markets. Thus, savings in retiree benefits are assumed to accrue to the employer.

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<sup>17</sup> Lower- and middle-income persons are defined to include all eligible persons with incomes below the income eligibility levels for the full credit.

## C. Program Impacts

We present our estimates in two ways. First, we present estimates of the cost and coverage impacts of this proposal assuming full implementation in 2002. These estimates are useful for comparing program impacts at current levels of health care costs and numbers of persons without health insurance. Second, for budgetary purposes, we also present year-by-year cost estimates for 2003 through 2012, which reflect the expected dates of program implementation.

These results are presented in the following sections:

- Sources of coverage;
- Premiums in the regional exchange;
- Impact on national health expenditures;
- Federal program costs;
- Impact on state and local governments;
- Employer impacts;
- Impacts on households; and
- Expenditures in future years.

### 1. Sources of Coverage

The authors' proposal would change the source of insurance coverage for most Americans. Based upon our simulation of employer and consumer decision making described above, we estimate that there would be about 74.6 million persons enrolled in the exchanges (*Figure 1*). These include:

- Workers and dependents in employer plans who shift to the exchanges;
- Workers and dependents in firms that are induced to purchase coverage through the exchanges;
- Persons with non-group coverage who enroll in the exchanges; and
- Lower-income persons induced to obtain coverage by the premium subsidies.

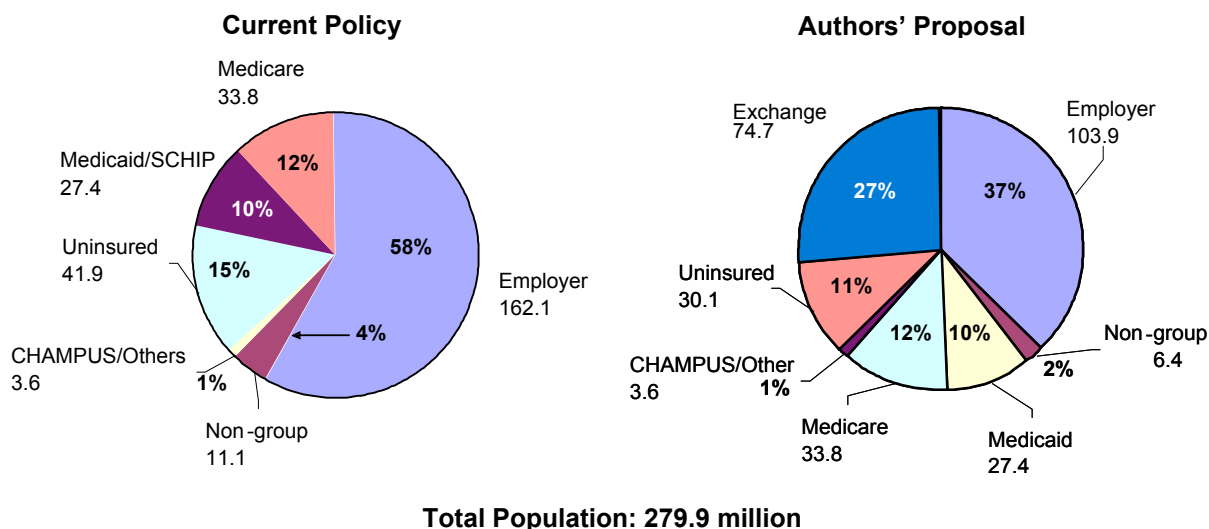
Coverage in employer sponsored plans would drop from 162.1 million persons under current law to 103.9 million persons under the authors' proposal. Private non-group coverage would decline from 11.1 million persons to 6.4 million persons. The number of persons with Medicaid/SCHIP, Medicare, or CHAMPUS remained unchanged under the authors' proposal.

The plan would reduce the number of uninsured by about 11.8 million persons. This is a reduction of about 28.2 percent from our estimate of 41.9 million uninsured persons in 2002.<sup>18</sup> *Figure 2* summarizes the transitions in coverage under the authors' proposal.

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<sup>18</sup> All population counts in this analysis represent average monthly enrollment by coverage source.

**Figure 1**  
**Distribution of Persons by Primary Source of Coverage under**  
**Current Policy and the Authors' Proposal in 2002**  
**(in millions)**



Source: Lewin Group estimates using the Health Benefits Simulation Model.

## 2. Regional Exchange Premium

Premiums in the regional exchange would be determined by the utilization of health services for the people who enroll. *Figure 3* presents our estimates of the “pure premium” cost (i.e., benefits costs excluding administration) of the program. These estimates assume a uniform benefits package (discussed above in the assumptions section).

Average costs per enrollee would be \$215 per member per month (PMPM) assuming that all employers shift to the exchanges. This PMPM amount also includes the cost for all persons currently uninsured and persons currently covered by a non-group policy. After applying our participation assumptions, described above, we estimate the PMPM amount would increase to \$245. This is due to the fact that employers would shift to the exchange if it was cost-beneficial to their employees (i.e., the community-rated premiums in the exchange less subsidies for eligible workers is less than their current costs). Thus, firms with higher-cost, older and sicker employees would tend to opt for the exchange.

The accumulation of higher-cost persons in the regional exchange would result in higher premiums that would in-turn affect the employer decision to enroll in these exchanges. Consequently, we performed a second iteration to account for this adverse selection into the exchanges. We estimate the PMPM amount for persons in these exchanges to be \$249, which is within two percent of our estimate from the first iteration (\$245).

The firms that are expected to continue to provide coverage would be those where private premiums are lower than in the regional exchange. We estimate that the average

**Figure 2**  
**Coverage Transitions Under the Authors' Proposal**  
**(in millions)**

Base Case Coverage	Total	Primary Sources of Coverage Under Proposal							
		Exchanges		Private Coverage		Other Sources			
		Employer	Individual	Employer	Non-group	CHAMPUS	Medicare	Medicaid	Uninsured
<b>Employer</b>	162.1	56.7	1.5	103.9	0	0	0	0	0
<b>Non-Group</b>	11.1	0	4.7	0	6.4	0	0	0	0
<b>CHAMPUS</b>	3.6	0	0	0	0	3.6	0	0	0
<b>Medicare</b>	33.8	0	0	0	0	0	33.8	0	0
<b>Medicaid</b>	27.4	0	0	0	0	0	0	27.4	0
<b>Uninsured</b>	41.9	0.2	11.6	0	0	0	0	0	30.1
<b>Total</b>	<b>279.9</b>	<b>56.9</b>	<b>17.8</b>	<b>103.9</b>	<b>6.4</b>	<b>3.6</b>	<b>33.8</b>	<b>27.4</b>	<b>30.1</b>

Source: Lewin Group estimates using the Health Benefits Simulation Model.

**Figure 3**  
**Estimated Pure Premium Costs for Exchanges Under the Proposal a/**

	Enrollees in the Exchanges			Continuing with Private Coverage
	Initial Premium Calculation b/	Premium under Participation Assumptions	Premium under Second Iteration	
<b>Individual</b>	\$235	\$256	\$259	\$221
<b>Couple</b>	470	512	518	442
<b>Family</b>	640	767	777	592
<b>Per Person</b>	\$215	\$245	\$249	\$198

a/ Includes benefits costs excluding program administration on a per-member, per-month basis (PMPM). Assumes a uniform benefits package.

b/ Includes previously uninsured persons, those previously with individual coverage, and persons currently covered under employer sponsored plans.

Source: Lewin Group estimates using the Health Benefits Simulation Model.

premium for firms that continue to provide private coverage would be \$198 PMPM for a comparable benefits package.

### 3. Impact on National Health Expenditures

Health expenditures in the United States are projected to reach about \$1.5 trillion in 2002. We estimate that national health spending would increase by about \$23.0 billion under the authors' proposal (*Figure 4*). Payments for health services would increase by about \$16.9 billion due to increased access to health services for newly insured persons and various effects of the program on utilization and provider reimbursement. Administrative costs would increase by about \$6.1 billion as coverage and subsidies are extended to new populations.

**Figure 4**  
**Changes in National Health Spending Under Authors' Proposal in 2002**  
**(in billions)**

<b>Change in health services expenditures</b>		<b>\$16.9</b>
Change in utilization for newly insured	\$11.2	
Change in utilization due to improved coverage	\$3.1	
Managed Competition Savings	(\$6.3)	
Reimbursement Effects	\$8.9	
Payments for uncompensated care <sup>a/</sup>	\$14.9	
Reduced cost shifting	(\$6.0)	
<b>Change in administrative costs</b>		<b>\$6.1</b>
Insurer administration	\$1.0	
Administration of subsidies	\$5.1	
<b>Total Change in Health Spending</b>		<b>\$23.0</b>

a/ Includes payments from the default plan.

Source: Lewin Group estimates using the Health Benefits Simulation Model.

Utilization of health services among newly insured persons and persons with improved coverage would increase by about \$14.3 billion. Also, a portion of the care that is now provided as uncompensated care would become reimbursable due to the insurance expansion resulting in an additional increase in provider income of about \$14.9 billion (includes amounts paid under default plan). We assume that about 40.0 percent of the increase in payments for uninsured persons (i.e., \$6.0 billion) would be passed on to private health plans in the form of reduced cost-shifting, for a net increase in provider revenues of \$8.9 billion. These increases would be partly offset by managed competition savings of about \$6.3 billion.<sup>19</sup>

Insurer/health plan administrative costs would increase by about \$1.0 billion. This reflects the cost of administering insurance for newly insured persons under private health plans. It also includes the cost of administering the newly created public exchanges

<sup>19</sup> Includes savings from provisions requiring individuals to pay the full increment of cost associated with enrollment in greater than median cost plan.

under the program. In addition, we estimate that administering premium subsidies for families would add an additional \$5.1 billion in administrative costs.

**Figure 5** summarizes how these changes in spending are distributed over major stakeholder groups. Initially, federal spending on health care would increase by about \$100.6 billion while employers, households and state and local governments would see savings. However, economic theory and evidence indicates that wages would be bid-up to reflect the savings in health benefits expenditures (i.e., \$23.2 billion), resulting in increased wage income for households.

**Figure 5**  
**Change in Health Spending by Stakeholder Group in 2002**  
**(in billions)**

	Without Wage Effects	With Wage Effects	With Wage Effects and Fully Financed
<b>Federal Government</b>	\$100.6	\$94.4	--
<b>State and Local Government</b>	(\$14.9)	(\$14.6)	(\$14.6)
<b>Private Employers</b>	(\$23.2)	(\$1.3)	(\$1.3)
<b>Households</b>	(\$39.5)	(\$55.5)	\$38.9
<b>Total Health Spending</b>	<b>\$23.0</b>	<b>\$23.0</b>	<b>\$23.0</b>

Source: Lewin Group estimates using the Health Benefits Simulation Model.

These savings to households would be more than offset by an increase in the personal income tax to cover the federal cost of the program. Thus, households would actually pay most of the cost of the increase in national health spending. **Figure 5** presents the impact on various stakeholder groups in greater detail.

#### **4. Federal Expenditures**

Total federal spending under the program would be \$109.3 billion if implemented in 2002. This includes \$77.9 billion (**Figure 6**) in tax credits provided to workers in corporate exchanges and other persons qualifying for credits who take coverage through the exchanges. The cost of determining eligibility for tax credit amounts for families in the exchanges would be about \$5.1 billion.

The authors' proposal would provide states with additional funding to provide health services to income-eligible persons who remain uninsured. The amount of funds received by each state would be equal to one-half of the difference between what total tax credit payments for these persons would have been if all eligible persons had enrolled and the amounts that would be paid to eligible persons who actually enroll. We estimate this amount would be about \$33.0 billion in 2002. However, the total cost for persons who remain uninsured is only about \$26.3 billion. In this analysis, we did not include any increased utilization of services for these persons.

The program would be financed in-part with a phased-in elimination of the tax exclusion for health benefits in excess of the median premium plus five percent. For illustrative

purposes, we assume that this limit on the tax exclusion is fully phased-in in 2002. This would result in about \$8.4 billion in new income and payroll tax revenues.

**Figure 6**  
**Sources and Uses of Federal Funds under the Authors' Proposal**

Uses of Funds		Sources of Funds	
Premium subsidies	\$77.9	Limit on pre-tax exclusion for health benefits <sup>a/</sup>	\$8.4
Administration of subsidies	\$5.1	Other savings	\$0.3
Direct payments for the uninsured	\$26.3	Revenues due to wage effect	\$6.2
		<b>Total Offsets</b>	<b>\$14.9</b>
		Amount raised through income tax increase	\$94.4
<b>Total Costs</b>	<b>\$109.3</b>	<b>Total Revenues</b>	<b>\$109.3</b>

a/ Includes increased income and payroll tax revenues.

Source: Lewin Group estimates using the Health Benefits Simulation Model.

The federal government would also see an increase in revenues due to the wage effect discussed above. As discussed below, employer costs would be reduced by about \$21.5 billion. These savings would be passed-on to workers in the form of increased wages, which would then be subject to federal income and payroll taxes. Total revenues from all sources would be \$14.9 billion leaving \$94.4 billion to be raised through an increase in the personal income tax.

### **5. Impact on State and Local Governments**

State and local governments would see savings of about \$13.4 billion in current safety-net programs for the medically indigent as the number of uninsured is reduced and federal funds are made available for these programs (*Figure 7*). This reflects payments formerly provided to the uninsured and payments to state and local governments under the default plan.

**Figure 7**  
**Change in Health Spending for State and Local Governments Under the Authors' Plan**

		Change in Spending
Savings for Safety-net Programs <sup>a/</sup>		\$13.4
State and Local Workers Health Benefits Savings/(increase)		\$0.5
Savings for Workers and Dependents \$1.0		
Savings for Retirees \$0.5		
Wage Effect Offset (\$1.0)		
Tax Revenue from Wage Effect		\$0.7
<b>Net Savings (Cost)</b>		<b>\$14.6</b>

a/ Reflects payments from default plan.

Source: Lewin Group estimates using the Health Benefits Simulation Model.

State and local governments would have the option of covering their workers under the exchanges. This would tend to occur in cases where the regional exchange premium is less than what the state would pay for private coverage. We estimate that total savings would be \$1.5 billion to state and local governments (\$1.0 billion for workers and dependents and \$0.5 billion for retirees). However, as discussed above, we assume that these savings (except retiree benefit savings) are eventually passed-on to workers in the form of higher wages, with little net impact on spending. Thus, the net savings to state and local government worker programs after accounting for wage effects would be about \$0.5 billion.

In addition, state and local governments with income taxes would see increased revenues resulting from the wage effect for affected workers. Total net savings to state and local governments would be about \$14.6 billion.

### 6. Private Employer Impacts

We estimate that private employers will spend about \$284.3 billion on health benefits in 2002 (*Figure 8*). This includes total benefits and insurer administrative costs less employee premium contributions. Private employer spending (i.e., \$284.3) includes about \$264.7 billion in spending for workers and dependents and \$19.5 billion in retiree benefits.

**Figure 8**  
**Changes in Private Employer Health Benefits Costs in 2002**  
**(in billions)**

	Insuring	Non-insuring	Total
<b>Private Employer Spending Under Current Policy</b>			
Current			
Workers & Dependents	\$264.7	--	\$264.7
Retirees	\$19.5	--	\$19.5
Total	\$284.3	--	\$284.3
<b>Private Employer Spending Under the Policy</b>			
Policy			
Workers & Dependents	\$242.4	\$0.5	\$242.9
Retirees	\$18.2	--	\$18.2
Total	\$260.6	\$0.5	\$261.1
<b>Net Change</b>	<b>(\$23.7)</b>	<b>\$0.5</b>	<b>(\$23.2)</b>

Source: Lewin Group estimates using the Health Benefits Simulation Model

We estimate that health spending among firms that currently provide coverage would decline by about \$23.7 billion under the program. These savings result from our assumption that employers shift to the exchange in cases where the premium in the exchange is less than what they would pay for comparable coverage in the private market.

We estimate that there would be about 200,000 workers and dependents in firms that would decide to provide coverage due to the program. These include persons in firms where the premium in the regional exchange is less than what they would pay in today's

market. The net cost of this coverage to these employers at the community rate would be about \$0.5 billion.

Thus, the net impact of the program would be a reduction in private employer spending of \$23.2 billion. Savings would average about \$279 per worker among firms that currently sponsor coverage (*Figure 9*).

**Figure 9**  
**Change in Employer Health Spending per Covered Worker**  
**by Firm Size under the Authors' Proposal <sup>a/</sup>**



<sup>a/</sup> Includes workers in insuring firms only.

Source: Lewin Group estimates using the Health Benefits Simulation Model

## 7. Household Impacts

The primary effects of the authors' proposal on families would be to reduce family premium payments and out-of-pocket spending for health services. Premium payments would be reduced by about \$28.4 billion (*Figure 10*). This reflects premium payments for newly insured persons and Medicaid eligible persons, less the amount of premium subsidies received. Out-of-pocket spending also would be reduced by about \$19.5 billion, primarily due to expanded coverage and increased funding for care provided to persons remaining uninsured.

These savings would be partly offset by an increase in federal taxes of \$8.4 billion resulting from the cap on the employer health benefits exclusion under the proposal. The net impact of these provisions would be a reduction in family health spending of about \$39.5 billion.

As discussed above, the savings to employers under the program are expected to be passed-on to workers in the form of increased wages. This would increase family incomes by about \$16.0 billion after taxes. We count this increase in after-tax income as an offset to family health spending. Thus, when the wage effects are considered, health

spending for households would be reduced by about \$55.5 billion under the program.

**Figure 10**  
**Impact of Authors' Proposal on Family Health Spending**

	Without Wage Effects	With Wage Effects	With Income Tax Increase
<b>Change in Premiums</b>	(\$28.4)	(\$28.4)	(\$28.4)
<b>Change in Out-of-pocket <sup>a/</sup></b>	(\$19.5)	(\$19.5)	(\$19.5)
<b>Tax Cap on Benefits <sup>b/</sup></b>	\$8.4	\$8.4	\$8.4
<b>After Tax Wage Effects <sup>c/</sup></b>	--	(\$16.0)	(\$16.0)
<b>Income Tax to Fund Program</b>	--	--	\$94.4
<b>Net Change</b>	<b>(\$39.5)</b>	<b>(\$55.5)</b>	<b>\$38.9</b>

a/ Includes assistance from default plans.

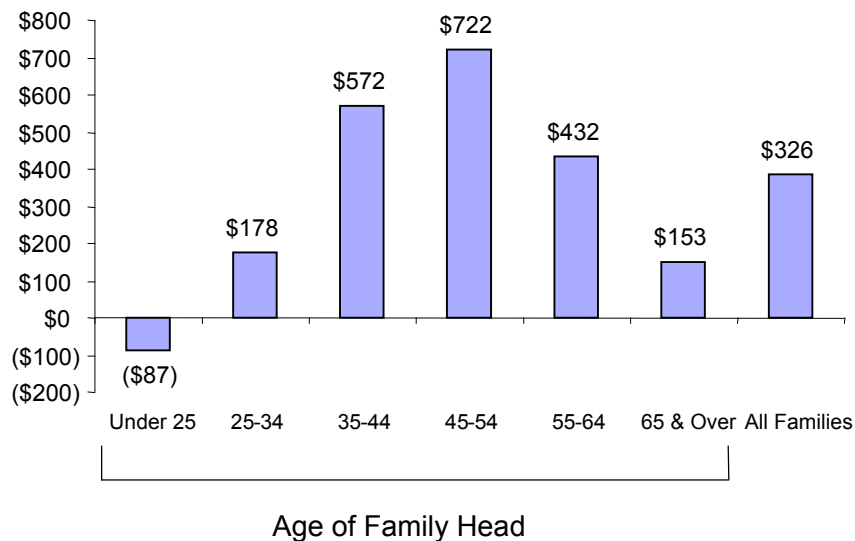
b/ Includes federal income and payroll taxes.

c/ The increase in after-tax wage income resulting from the program is counted here as an offset to family health spending.

Source: Lewin Group estimates using the Health Benefits Simulation Model.

These savings would be more than offset by the increase in federal income taxes required to fund the program (\$94.4). As discussed above, the authors propose to fund the program with new “federal expenditures.” For illustrative purposes, we have assumed that this amount would be raised through an increase in the personal income tax. When these taxes are added to family costs, the program actually increases family health spending by about \$38.9 billion. This is an average increase in family health spending of about \$326 per family (*Figure 11*).

**Figure 11**  
**Change in Average Family Health Spending under the Authors' Proposal in 2002: by Age of Family Head <sup>a/</sup>**

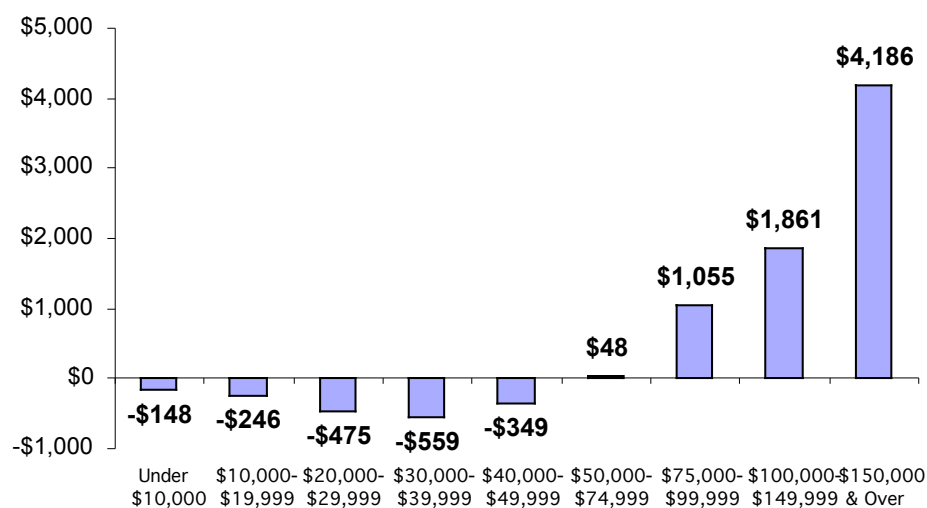


Source: Lewin Group estimates using the Health Benefits Simulation Model.

Spending would on average increase across all age groups except for families headed by someone under the age of 25, where costs would be reduced by an average of \$87 per family. This reflects the fact that the people in this age group often have incomes low enough to qualify for subsidies and have low enough incomes that they would not be affected greatly by the income tax increase under the proposal. Even families with a head age 65 or older would on average see an increase in spending, reflecting the fact that these individuals are also affected by the income tax increase.

The program would result in a substantial transfer of income to lower-income families. For example, families with incomes of less than \$50,000 would on average see savings of \$148 per family to \$559 per family, while families with incomes over \$150,000 would see an average increase in health spending (i.e., including tax payments) of \$4,186 per family (*Figure 12*). This reflects the fact that subsidies under this proposal would go to lower-income persons while higher income persons would see the largest increases in taxes under the progressive structure of the income tax. *Figure 13* presents the distribution of newly insured persons under the proposal by age and income.

**Figure 12**  
**Change in Average Family Health Spending under the Authors' Proposal:**  
**by Family Income**



Source: Lewin Group estimates using the Health Benefits Simulation Model.

## 8. Expenditures in Future Years

As discussed above, we estimate that national health spending would increase by about \$23.0 billion if the program were fully implemented in 2002. This is principally due to increased health services utilization among newly insured people, which we estimate would be partially offset by managed competition savings of about \$6.3 billion among currently insured people. This includes the effect of requiring individuals enrolled in exchanges to pay the full cost of enrolling in a more costly health plan, and the limits on the employer health benefits exemption.

**Figure 13**  
**Change in the Number of Uninsured**

	Number of Uninsured under Current Law	Change in Number of Uninsured	Number Remaining Uninsured
<b>Age</b>			
Under 19	8,979	1,461	7,518
19-24	7,430	2,555	4,875
25-34	9,111	2,610	6,501
35-44	7,966	2,355	5,611
45-54	5,202	1,741	3,461
55-64	3,083	1,027	2,056
65 & Over	173	67	106
<b>Family Income</b>			
Under \$10,000	4,153	1,205	2,948
\$10,000-\$19,999	6,650	1,847	4,803
\$20,000-\$29,999	7,425	2,835	4,590
\$30,00-\$39,999	6,126	1,998	4,128
\$40,000-\$49,999	3,995	1,294	2,701
\$50,000-\$74,999	6,384	1,688	4,696
\$75,000-\$99,999	3,399	475	2,924
\$100,000-\$149,999	1,906	259	1,647
\$150,000 & over	1,906	215	1,691
<b>Total</b>	<b>41,944</b>	<b>11,816</b>	<b>30,128</b>

Source: Lewin Group estimates using the Health Benefits Simulation Model.

We also estimate that the increase in HMO enrollment resulting from the managed competition features of the program would slow the rate of growth in health spending in future years, resulting in savings for much of the affected population. The available research indicates that the rate of growth in health spending is reduced as the percentage of persons enrolled in HMOs increases. Based upon a review of these studies, we assume that each 10 percent increase in the number of persons enrolled in HMOs would result in a reduction in spending growth of 1.3 percent for hospital services and 0.6 percent for physicians' services.

The Centers for Medicare and Medicaid Services (CMS) projects that national health spending will increase from about \$1.65 trillion in 2003 to about \$3.00 trillion in 2012 under current policy (*Figure 14*). Health spending would increase in 2003 to about \$1.67 trillion under the author's proposal as newly insured people become covered. However, the rate of growth in health spending would be reduced due to the managed competition features of the program so that by 2012, total health spending under the author's proposal would be about equal to what it would be in that year under current law (i.e., without the expansion in coverage). The total net change in health spending over the ten-year period between 2003 through 2012 would be an increase of about \$141.4 billion.

**Figure 14**  
**National Health Spending under the Authors' Proposal 2003-2012**  
**(in billions)**

	Current Policy	Net Increase(Decrease)	Authors' Proposal
2003	\$1,653.4	\$12.0	\$1,665.4
2004	\$1,773.4	\$18.0	\$1,791.4
2005	\$1,902.2	\$21.7	\$1,923.9
2006	\$2,036.6	\$20.7	\$2,057.3
2007	\$2,174.9	\$18.8	\$2,193.7
2008	\$2,320.0	\$16.9	\$2,336.9
2009	\$2,476.1	\$13.5	\$2,489.6
2010	\$2,639.2	\$10.4	\$2,649.6
2011	\$2,815.8	\$6.9	\$2,822.7
2012	\$3,004.4	\$2.5	\$3,006.9

Source: Lewin Group estimates based upon "National Health Care Expenditure Projections: 2003-2012", by the Centers for Medicare and Medicaid Services (CMS), Office of the Actuary.

Total federal costs for subsidies under the authors' proposal would be \$104.3 billion in 2003, growing to \$200.8 billion by 2012 (*Figure 15*). This includes the cost of tax credits and direct payments for the uninsured under the proposal. These estimates reflect the lag in enrollment for newly eligible persons in early years of the program as people learn of their potential eligibility for the program.<sup>20</sup> They also reflect the impact of the managed competition features of the plan on the rate of growth in spending within exchanges.

There would be several offsets to these new federal costs. These include the limits on the tax exclusion for employer provided health benefits, which would be phased-in over the 2003 through 2012 period. There also would be an increase in tax revenues due to the wage effect resulting from employer savings under the proposal.

#### **D. Sensitivity to Key Assumptions**

The estimates presented above are sensitive to the assumptions used in our analysis. At the request of the authors, we have estimated the cost and coverage impacts of their proposal under alternative assumptions on savings from managed competition. Under this alternative scenario, we assume roughly double the effect of managed competition assumed in the Lewin Group estimates. All other assumptions are assumed to remain the same as assumed in the Lewin analysis presented above.

<sup>20</sup> We assume that there would be a lag in enrollment for persons newly eligible for subsidies. We assume that in the first year of the program, enrollment for newly eligible persons would be about half of the expected participation rate for the program. Enrollment in the second year for newly eligible is assumed to be equal to 80 percent of expected enrollment, with enrollment reaching 100 percent of its expected level in the third year and thereafter.

**Figure 15**  
**Federal Spending and Revenues under Authors' Proposal: 2003-2012**  
**(in billions) a/**

	Subsidies <sup>b/</sup>	Limit on Health Benefits Exclusion <sup>c/</sup>	Other Revenue Effects <sup>d/</sup>	Amount Needed to Fund Program
<b>2003</b>	104.3	0.9	7.0	96.4
<b>2004</b>	122.4	1.9	7.8	112.7
<b>2005</b>	132.0	3.2	8.6	120.2
<b>2006</b>	141.4	4.6	9.6	127.2
<b>2007</b>	150.3	6.0	10.6	133.7
<b>2008</b>	159.4	7.7	11.6	140.1
<b>2009</b>	169.2	9.6	12.7	146.9
<b>2010</b>	179.2	11.6	14.0	153.6
<b>2011</b>	189.7	13.8	15.4	160.5
<b>2012</b>	200.8	16.3	16.8	167.7

a/ Reflects assumed lag in enrollment for persons newly eligible for subsidies (i.e., tax credit) with enrollment fully phased-in by 2005.

b/ Subsidies are assumed to grow at the CMS projected rate of growth in private insurance spending adjusted to reflect the impact of the managed competition features of the proposal on the rate of growth in spending for acute care.

c/ The cap on the employer health benefits tax exclusion would be phased-in over a ten year period.

d/ Includes the increase in income and payroll tax revenues that would occur as a result of the reduction in health benefits costs under the proposal.

Source: Lewin Group estimates based upon "National Health Care Expenditure Projections: 2003-2012", by the Centers for Medicare and Medicaid Services (CMS), Office of the Actuary.

In the Lewin Group estimates we assume that the primary effect of managed competition would be to shift people from fee-for-service plans (including PPO or POS plans) to HMOs, where costs are typically lower. Managed competition requires that the amount of the premium subsidy—whether from a public program or an employer—be a fixed-dollar amount so that people face the full increment of the cost of enrolling in a higher-cost plan. This has the effect of increasing the premium that most individuals must pay to stay with their higher-cost FFS plans.

In our simulations, we assume that people in FFS plans who become covered under an exchange will move to HMOs based upon estimates of the price elasticity for HMO coverage in employer sponsored multiple health plan offerings. As discussed above, the elasticity varies with age and health status but averages about -2.47. Expenditures for people who shift to HMOs are assumed to be reduced by 12 percent based upon studies comparing costs in HMO and FFS plans.

The authors suggest that because of the large number of people in these exchanges, savings could be substantially higher than has been observed among existing health plans, and that we should consider estimates under more optimistic assumptions. **Figure 16** summarizes our estimates of changes in enrollment and spending under the Author's plan with a variation on the assumption of the impact of managed competition. For this analysis, we assume that the price elasticity is double what we have assumed in the

Lewin Group estimates and that HMO savings are 25 percent compared with the Lewin assumption of 12 percent.

Using these assumptions, we estimate that the authors' proposal would still result in a net increase in national health spending of about \$14.4 billion. This compares with the Lewin estimate of an increase in spending of about \$23.0 billion under the authors' proposal (*Figure 16*). The average premium for people in exchanges would drop from the Lewin estimate of \$249 PMPM (see *Figure 3* above) to about \$239 PMPM, which is a difference of about 4.0 percent.

**Figure 16**  
**Changes in Enrollment and Spending Under the Authors Proposal**

	Change in Spending	
	Lewin Assumptions	Author's Assumptions
<b>Program Enrollment (millions)</b>		
Enrollment under the Public Plan	74.7	84.1
Private Insurance Coverage	110.3	101.7
Number Remaining Uninsured	30.1	29.2
<b>Changes in National Health Spending (billions)</b>		
Changes in National Health Spending	\$23.0	\$14.4
<b>Net Federal Costs (billions)</b>		
Premium Subsidies	\$77.9	\$80.5
Administration of Subsidies	\$5.1	\$5.3
Direct Payments for the Uninsured	\$26.3	\$25.5
Total Federal Costs	\$109.3	\$111.3
Total Offsets from Costs <sup>a</sup>	(\$14.9)	(\$16.4)
<b>Net Federal Costs</b>	<b>\$94.4</b>	<b>\$94.9</b>
<b>Changes in Private Employer Spending (billions)</b>		
Currently Insuring Firms	(\$23.7)	(\$28.6)
Currently Non-Insuring Firms	\$0.5	\$0.5
All Private Firms	(\$23.2)	(\$28.1)

a/ Includes limit on pre-tax exclusion for health benefits, savings to FEHBP, and revenues due to wage effects.

Source: Lewin Group Estimates using the Health Benefits Simulation Model (HBSM).

These reductions in premiums would increase the number of uninsured people who become covered under the authors' proposal from 11.8 million people in the Lewin estimates to 12.7 million people under the authors' assumptions. This reflects the impact that these changes in premiums would have on the number of individuals purchasing coverage through the voluntary purchasing pool and the number of employers who decide to sponsor coverage.

The lower premiums in the exchange would also result in an increase in the number of people and employers forming or enrolling in an exchange. Enrollment in the exchanges would increase from the Lewin Group estimate of about 74.7 million people to about 84.1 million under the authors' assumptions.

The increased enrollment in exchanges would result in an increase in net federal costs from the Lewin of about \$94.4 billion to about \$94.9 billion. This is because federal

savings from a lower premium in the exchanges would be more than offset by the increase in subsidy payments attributed to increased coverage and enrollment in the exchange model.

Employer costs would be significantly lower under these assumptions. In the Lewin Group estimates, total private employer spending for health benefits is estimated to decline by \$23.2 billion. Under the higher managed competition savings scenario, private employer savings would increase to about \$28.1 billion.