

IMPACT OF BARACK OBAMA 2008 HEALTH REFORM PROPOSAL

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Submitted to:

McCain 2008 Campaign
Arlington, Virginia

Submitted by:

HSI Network, LLC
Wayzata, MN 55391
www.hsinetwork.com

Roger Feldman, Ph.D., Senior Fellow
Lisa Tomai, M.S., Senior Director
Sally Duran, M.S.H.A, Senior Fellow

Contacts:

roger.feldman@hsinetwork.com, 612-624-5669
lisa.tomai@hsinetwork.com, 203-448-9249
sally.j.duran@hsinetwork.com, 703-489-6097



Barack Obama Health Reform Proposal

Assessment by HSI Network LLC

Summary Snapshot

Barack Obama's proposal includes an array of policy components acting in combination. **If implemented immediately and in total, there would be a reduction in the uninsured by 25.5 million covered lives (from 47 million) at an annual cost exceeding \$452 billion dollars.** The Obama proposal has a range of initiatives intended to increase health insurance coverage and make it more affordable. In general, the proposal is a potpourri of prior initiatives that lacks an integrated design. It is primarily a list of 'fixes' with little discussion of contradictions among specific plan elements (e.g., states' rights for health reform vs. mandatory child coverage) and raises questions regarding the operational components of the plan if passes as legislation. The one signature component of the plan is mandated coverage for all children. This alone would yield a reduction in the uninsured population of approximately 12.6 million people – with a cost of approximately \$211 billion.

Below, we summarize the candidate's plan in terms of his goals, HSI's assumptions of operational changes for assessment and elements that can not be evaluated. We then present a cost and coverage impact summary. The report concludes with the technical specification used in this simulation. When possible, all simulation assumptions were based on estimates from government reports and peer reviewed literature.

The underlying simulation model used is ARCOLA, a proprietary version of a health reform coverage and cost assessment analytic engine. A peer-reviewed presentation of the core model structure is available as a DHHS report at www.ehealthplan.org and previously summarized in a paper in Health Affairs.¹

Candidate's Stated Health Care Program Goals

- High-Quality, Affordable and Portable Coverage for All
- Lower Costs by Modernizing The U.S. Health Care System
- Fight for New Initiatives

Summary of Operational Changes Resulting from Proposal for Assessment

Senator Obama will make available a new national health plan to all Americans, including the self-employed and small businesses, to buy affordable health coverage that is similar to the plan available to members of Congress.

¹ Feldman, R., et al. "Health Savings Accounts: Early Estimates of National Take-up from the 2003 Medicare Modernization Act and Future Policy Proposals." Health Affairs, November 10, 2005. A working paper is available at www.hsinetwork.com.

Specific Features to be Simulated

- **Community rating:** All premiums in the individual insurance market will be community rated. No American will be turned away from any insurance plan because of illness or pre-existing conditions
- **Minimum benefit design of Federal Employee Health Benefit Program:** The benefit package will be similar to that offered through the Federal Employees Health Benefits Program (FEHBP), the plan members of Congress have. The plan will cover all essential medical services, including preventive, maternity and mental health care.
- **Mandatory Coverage of Children:** Require that all children have health care coverage. Expand the number of options for young adults to get coverage, including allowing young people up to age 25 to continue coverage through their parents' plans.
- **Support for Small Businesses:** Barack Obama will create a Small Business Health Tax Credit to provide small businesses with a refundable tax credit of up to 50 percent on premiums paid by small businesses on behalf of their employees. This new credit will provide a strong incentive to small businesses to offer high quality health care to their workers and help improve the competitiveness of America's small businesses.
- **Reducing Costs of Catastrophic Illnesses for Employers and Their Employees:** Catastrophic health expenditures account for a high percentage of medical expenses for private insurers. The Obama plan would reimburse employer health plans for a portion of the catastrophic costs they incur above a threshold if they guarantee such savings are used to reduce the cost of workers' premiums.
- **Low-Income Subsidy**

The Obama plan includes a subsidy to help low-income individuals buy health insurance.
- **'Play or Pay'**

The Obama plan requires all employers to contribute to health coverage for their employees ('play') or pay a tax to support the cost of the National Plan ('pay').

Summary of Changes with No Rigorous Empirical Evidence

- **Patient Safety:** Obama will require providers to report preventable medical errors and support hospital and physician practice improvement to prevent future occurrences.

- **Align incentives for excellence:** Both public and private insurers tend to pay providers based on the volume of services provided, rather than the quality or effectiveness of care. Providers who see patients enrolled in the new public plan, the National Health Insurance Exchange, Medicare and FEHBP will be rewarded for achieving performance thresholds on outcome measures.
- **Comparative effectiveness research:** Obama will establish an independent institute to guide reviews and research on comparative effectiveness, so that Americans and their doctors will have the accurate and objective information they need to make the best decisions for their health and well-being.
- **Tackle disparities in health care:** Obama will tackle the root causes of health disparities by addressing differences in access to health coverage and promoting prevention and public health, both of which play a major role in addressing disparities. He will also challenge the medical system to eliminate inequities in health care through quality measurement and reporting, implementation of effective interventions such as patient navigation programs, and diversification of the health workforce.
- **Antitrust Insurance reform:** Obama will strengthen antitrust laws to prevent insurers from overcharging physicians for their malpractice insurance and will promote new models for addressing errors that improve patient safety, strengthen the doctor-patient relationship and reduce the need for malpractice suits.
- **Support disease management programs.** Seventy five percent of total health care dollars are spent on patients with one or more chronic conditions, such as diabetes, heart disease and high blood pressure. Obama will require that providers that participate in the new public plan, Medicare or the Federal Employee Health Benefits Program (FEHBP) utilize proven disease management programs. This will improve quality of care, give doctors better information and lower costs.
- **National Health Insurance Exchange:** The Obama plan will create a National Health Insurance Exchange to help individuals who wish to purchase a private insurance plan. The Exchange will act as a watchdog group and help reform the private insurance market by creating rules and standards for participating insurance plans to ensure fairness and to make individual coverage more affordable and accessible. Insurers would have to issue every applicant a policy, and charge fair and stable premiums that will not depend upon health status. The Exchange will require that all the plans offered are at least as generous as the new public plan and have the same standards for quality and efficiency. The Exchange would evaluate plans and make the differences among the plans, including cost of services, public.
- **Lowering Costs Through Investment in Electronic Health Information Technology Systems:** Most medical records are still stored on paper, which

makes it hard to coordinate care, measure quality or reduce medical errors and which costs twice as much as electronic claims. Obama will invest \$10 billion a year over the next five years to move the U.S. health care system to broad adoption of standards-based electronic health information systems, including electronic health records, and will phase in requirements for full implementation of health IT.

Cost Impact of Proposal

The total cost impact of the proposal is \$452 billion per year, assuming it is implemented immediately and in total. The ten-year impact of the proposal is likely to top \$6 trillion assuming that medical care inflation will be 7% per year. Most of this cost is the result of children’s coverage and the assumption that the way to achieve this quickly is through mandatory coverage. The preference for a federal health benefit insurance design leads to insurance coverage largely through a high-option Preferred Provider Organization plan. This preference addresses many other elements of the proposal, such as mental health parity and the use of disease management programs. The investment in health IT is assumed to be a wash in the system given that additional costs of health IT to providers will consume most of the savings in the near term.

Top line assessment of proposal

| Obama 2008 Health Reform Plan | | | | |
|--------------------------------------|-------------------|-------------------|--------------------------|-------------------|
| | Status Quo | Proposal | | Population |
| Individual Market | Population | Population | Total Cost | Impact |
| Insured | 14,208,908 | 22,821,586 | \$117,512,952,964 | 8,612,678 |
| Uninsured | 41,777,828 | 14,568,621 | \$0 | -27,209,207 |
| | | Subtotal | \$117,512,952,964 | |
| Group Market | | | | |
| Insured | 121,988,543 | 138,847,892 | \$334,655,334,305 | 16,859,350 |
| Uninsured | 5,187,008 | 6,924,188 | \$0 | 1,737,180 |
| | | Subtotal | \$334,655,334,305 | |
| | | Total | \$452,168,287,269 | |

The proposal provides a significant reduction in the uninsured. In the group market there is a net increase in the uninsured, but that is much smaller than the offsetting impact of a reduction of uninsured in the individual market.

Detailed impact by health insurance plan types if acted apart as separate components:

Each component of the Obama proposal was evaluated separately as if they were independent pieces of legislation. Adding up the components yields a total cost of \$562 billion. In combination, the components act together to produce a total annual cost of \$452 billion.

| | |
|---|-------------------------|
| 1. All get FEHBP option | Impact: \$23.2 Billion |
| 2. Community rate the individual market | Impact: \$32.7 Billion |
| 3. Kids mandated coverage | Impact: \$211.7 Billion |
| 4. Government reinsurance market | Impact: \$40.4 Billion |
| 5. Low income subsidy - individual market | Impact: \$44.3 Billion |
| 6. Small business tax credit | Impact: \$30.8 Billion |
| 7. Play or Pay | Impact: \$179.0 Billion |

In the group market the introduction of play or pay will introduce new employer and consumer costs. In our analysis, we model the financial consequences of play or pay as falling primarily on the consumer. We estimate that the cost of implementing play or pay alone will be \$179 billion. Others have modeled this differently with employers dropping coverage. For example, a prior Lewin report of the John Edwards play or pay design estimated a 52 million person drop in employer sponsored coverage².

Coverage Impact of Proposal

The proposal leads to a substantial reduction of the uninsured by approximately 25.5 million of 47 million uninsured. There is 100% coverage of all children and many adults. We estimate that 12.6 million uninsured children would receive coverage. This result can only be guaranteed at a subsidy level never before seen in any federal health care initiative and assumes a coordination effort between employers and the federal government that has no prior precedent and would likely need to supersede any state initiative to be comprehensive, effective and portable.

² Health Care for America. <http://www.sharedprosperity.org/hcfa/lewin.pdf>

Detailed impact by health plan designs

| Individual Market | Status Quo Population | Obama 2008 Health Reform Plan | |
|---------------------------------|----------------------------------|--------------------------------------|------------------------------|
| | | Proposal Population | Population Impact |
| HSA | 4,734,199 | 433,855 | -4,300,344 |
| National Public Plan | 0 | 4,832,887 | 4,832,887 |
| Children's National Public Plan | 0 | 12,620,176 | 12,620,176 |
| PPO High | 56,387 | 2,433,267 | -6,636,898 |
| PPO Low | 9,070,165 | 1,997,997 | -7,072,168 |
| PPO Medium | 348,157 | 503,403 | 155,246 |
| Uninsured | 41,777,828 | 14,568,621 | -27,209,207 |
| Subtotal | 55,986,736 | 37,390,206 | -27,610,308 |
| Group Market | | | |
| HMO | 29,195,312 | 23,365,683 | -5,829,629 |
| HRA | 3,475,418 | 4,082,488 | 607,070 |
| Employer-sponsored HSA | 106,025 | 94,347 | -11,678 |
| Opt-out HSA | 52,294 | 254,028 | 201,734 |
| National Public Plan | 0 | 19,741,406 | 19,741,406 |
| Children's National Public Plan | 0 | 38,029,517 | 38,029,517 |
| Opt-out PPO Low | 184,570 | 141,687 | -42,883 |
| PPO High | 12,972,809 | 39,273,412 | 26,300,603 |
| PPO Low | 1,519,452 | 937,554 | -581,898 |
| PPO Medium | 65,589,579 | 1,021,435 | -64,568,145 |
| Turned Down - Other Private | 8,893,084 | 11,906,336 | 3,013,253 |
| Turned Down - No insurance | 5,187,008 | 6,924,188 | 1,737,180 |
| Subtotal | 127,175,550 | 145,772,080 | 18,596,530 |

The Obama plan would create a very different health plan distribution than what is available today. HSAs would be less popular, through Health Reimbursement Arrangements (HRAs) would gain in coverage. The offering of a public health plan will practically eliminate the group market medium PPO plan design that has been the most popular plan to date. High option PPOs as well as the national public plans would become the dominant health plan offerings.

Sub-population Analyses

We complete a set of sub-population analyses to test the impact of coverage on different groups of Americans. This analysis is focused on the non-public insurance market only and excludes children since they are completely covered by the mandate.

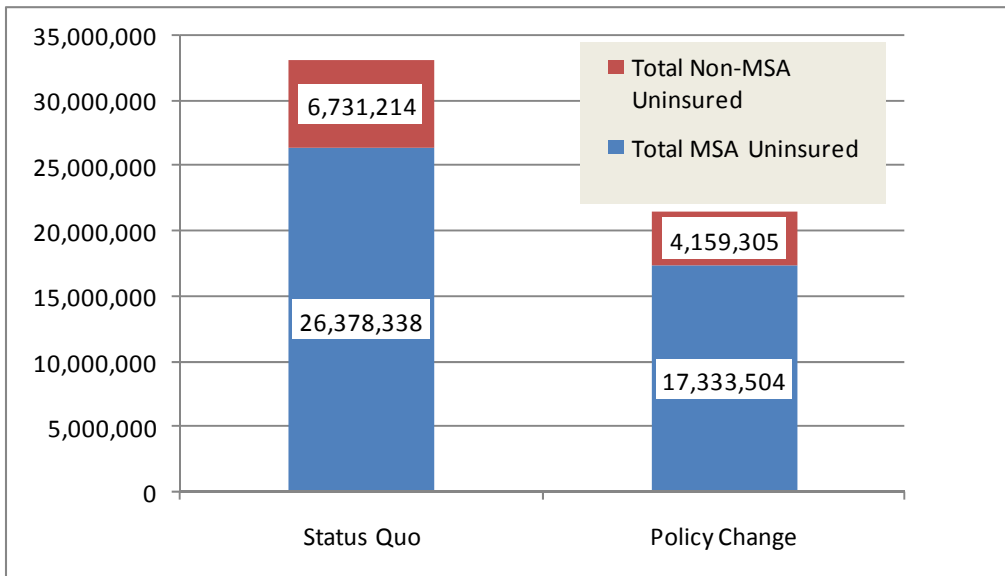
Metropolitan Areas

People living in metropolitan areas as defined by MSA designation are slightly worse off (-34%) than non-MSA areas with respect to reductions in the uninsured (-38%). Although there is a slight projected difference, the impact on rural and urban regions is about the same, with rural regions being slightly favored.

Impact by Metropolitan Statistical Areas

| | Status Quo Population | Population % Change | New Policy Population |
|-------------------------|-----------------------|---------------------|-----------------------|
| Total Insured | 98,066,148 | 12% | 109,682,891 |
| Total Uninsured | 33,109,552 | -35% | 21,492,809 |
| Total MSA Uninsured | 26,378,338 | -34% | 17,333,504 |
| Total Non-MSA Uninsured | 6,731,214 | -38% | 4,159,305 |
| Total MSA Insured | 82,319,091 | 11% | 91,363,925 |
| Total Non-MSA Insured | 15,747,057 | 16% | 18,318,966 |

Reduction in the Uninsured by Metropolitan Statistical Area



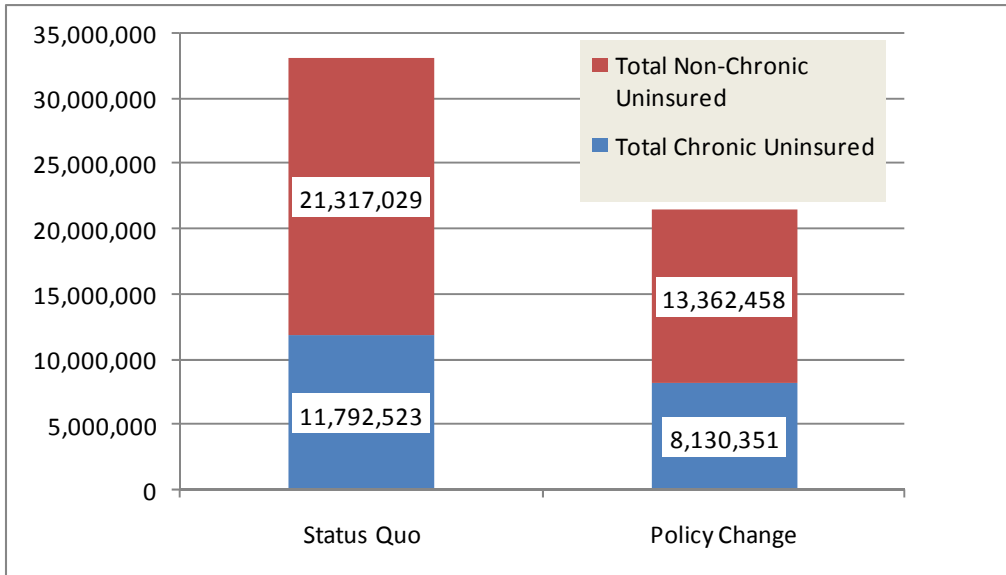
Chronic Illness

Under the Obama plan, people with chronic illness will gain insurance coverage. However, individuals with chronic illness will be less likely to gain insurance coverage than those who are not chronically ill. There is a 31% reduction in the uninsured among the chronically ill and a 37% reduction in the uninsured among those who do not have chronic illnesses.

Impact by Chronic Illness Presence

| | Status Quo Population | Population % Change | New Policy Population |
|-----------------------------|-----------------------|---------------------|-----------------------|
| Total Insured | 98,066,148 | 12% | 109,682,891 |
| Total Uninsured | 33,109,552 | -35% | 21,492,809 |
| Total Chronic Uninsured | 11,792,523 | -31% | 8,130,351 |
| Total Non-Chronic Uninsured | 21,317,029 | -37% | 13,362,458 |
| Total Chronic Insured | 30,683,787 | 12% | 34,345,960 |
| Total Non-Chronic Insured | 67,382,361 | 12% | 75,336,931 |

Reduction in the Uninsured by Chronic Illness Presence



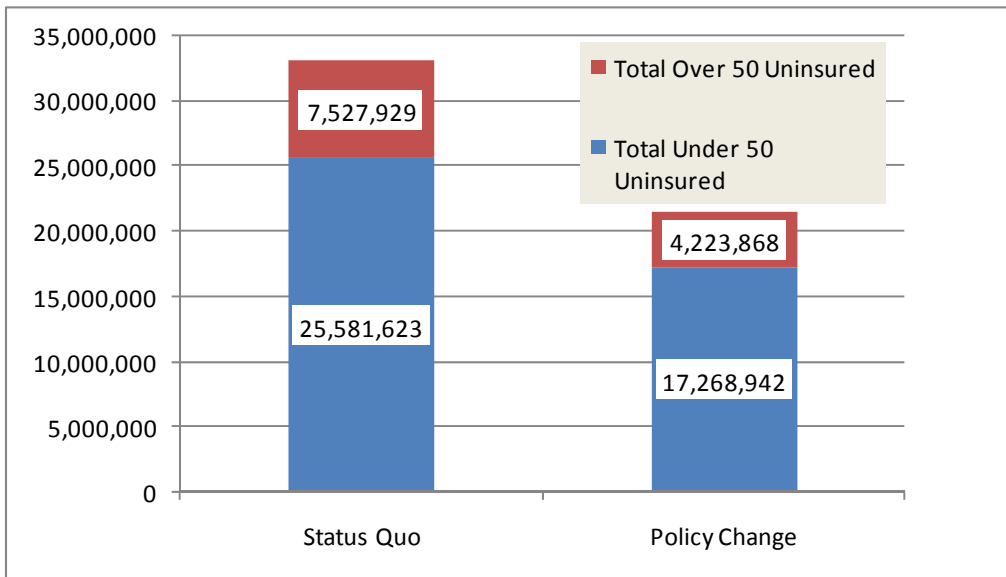
Age

Those over the age of 50 would see a 44% decrease in uninsurance. Those under 50 would also have greater insurance coverage but they would see only a 32% decrease in uninsurance. Of course children would have compulsory insurance.

Impact by Age (over 50 years of age)

| | Status Quo Population | Population % Change | New Policy Population |
|----------------------------|------------------------------|----------------------------|------------------------------|
| Total Insured | 98,066,148 | 12% | 109,682,891 |
| Total Uninsured | 33,109,552 | -35% | 21,492,809 |
| Total Under 50 Uninsured | 25,581,623 | -32% | 17,268,942 |
| Total Over 50 Uninsured | 7,527,929 | -44% | 4,223,868 |
| Total Under 50 Insured | 75,280,661 | 11% | 83,593,343 |
| Total Non-Under 50 Insured | 22,785,486 | 15% | 26,089,547 |

Reduction in the Uninsured by Age (over 50 years of age)



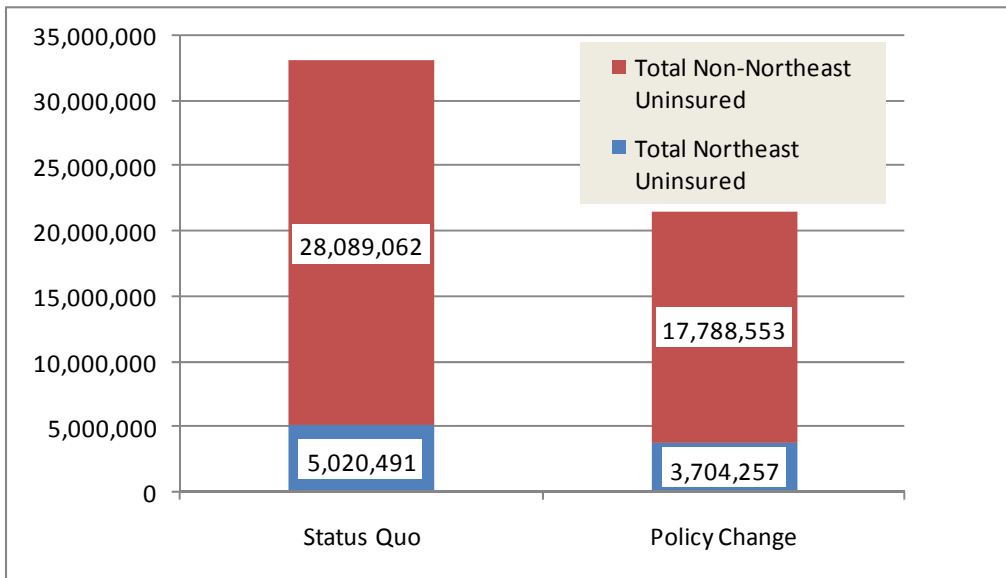
Region

There are some regional differences. We compared the most densely population region in the US, the Northeast, with the rest of the country. Those in the Northeast would see a 7% increase in insurance coverage while those elsewhere would have a 13% increase in insurance coverage.

Impact by Northeast resident or not

| | Status Quo Population | Population % Change | New Policy Population |
|-------------------------------|--------------------------|------------------------|--------------------------|
| Total Insured | 98,066,148 | 12% | 109,682,891 |
| Total Uninsured | 33,109,552 | -35% | 21,492,809 |
| Total Northeast Uninsured | 5,020,491 | -26% | 3,704,257 |
| Total Non-Northeast Uninsured | 28,089,062 | -37% | 17,788,553 |
| Total Northeast Insured | 19,547,772 | 7% | 20,864,006 |
| Total Non-Northeast Insured | 78,518,375 | 13% | 88,818,884 |

Reduction in the Uninsured by Northeast resident or not



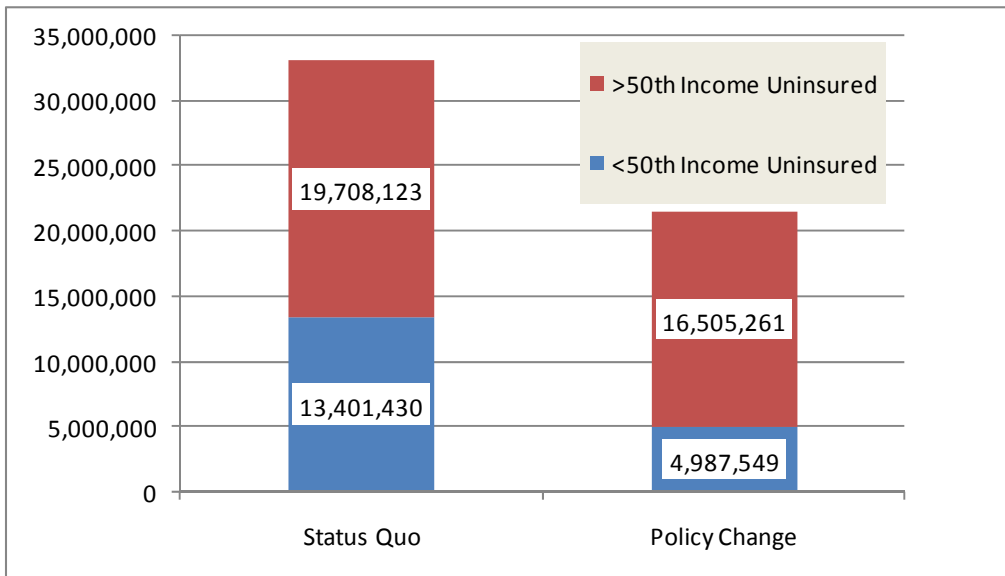
Income

With respect to income, the impact of the Obama policy for the uninsured is not identical for those above and below the 50th percentile for wage income. Those earning less than the 50% percentile would see a 165% increase in insurance coverage. Those earning more than the 50% percentile would see a 4% increase in coverage.

Impact by lower 50th percentile of income

| | Status Quo Population | Population % Change | New Policy Population |
|--------------------------------|----------------------------------|--------------------------------|----------------------------------|
| Total Insured | 98,066,148 | 12% | 109,682,891 |
| Total Uninsured | 33,109,552 | -35% | 21,492,809 |
| <50th Income Uninsured | 13,401,430 | -63% | 4,987,549 |
| >50th Income Uninsured | 19,708,123 | -16% | 16,505,261 |
| Total <50th Income Insured | 5,029,419 | 165% | 13,311,964 |
| Total Non-<50th Income Insured | 93,036,728 | 4% | 96,370,927 |

Reduction in the Uninsured by lower 50th percentile of income



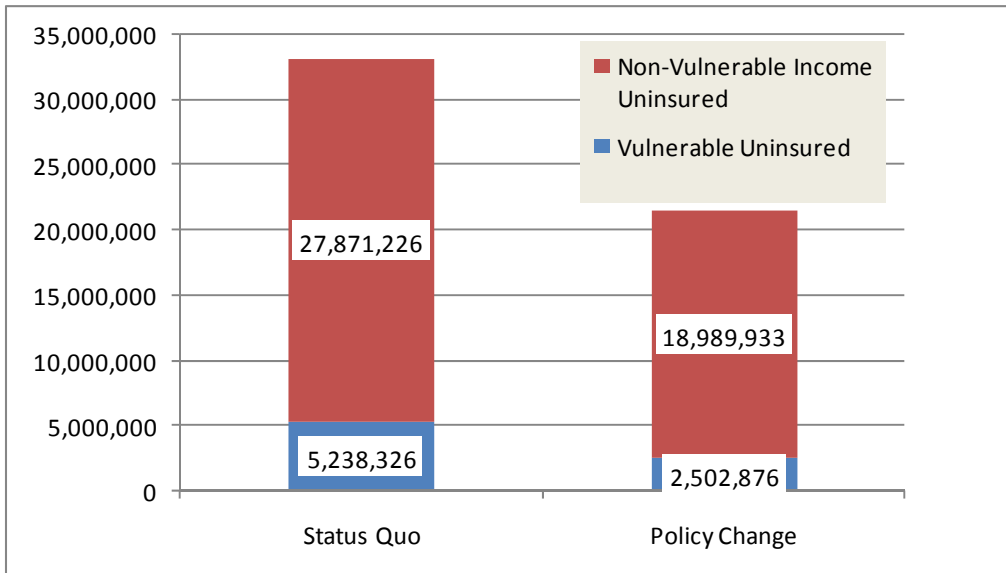
Vulnerable Populations

The reduction in the uninsurance rate among vulnerable populations at the 25th percentile of wage income and having a chronic illness is substantial, with this group having a greater reduction of 52% compared with the non-vulnerable population’s reduction of 32%.

Impact by vulnerable population status (less 25th Income percentile and chronically ill)

| | Status Quo Population | Population % Change | New Policy Population |
|---------------------------------|----------------------------------|--------------------------------|----------------------------------|
| Total Insured | 98,066,148 | 12% | 109,682,891 |
| Total Uninsured | 33,109,552 | -35% | 21,492,809 |
| Vulnerable Uninsured | 5,238,326 | -52% | 2,502,876 |
| Non-Vulnerable Income Uninsured | 27,871,226 | -32% | 18,989,933 |
| Total Vulnerable Insured | 1,244,285 | 215% | 3,923,781 |
| Total Non-Vulnerable Insured | 96,821,863 | 9% | 105,759,110 |

Reduction in the Uninsured by vulnerable population status (less 25th Income percentile and chronically ill)



Obama Health Plan Simulation: Technical Documentation

The Obama health plan proposes a complex set of changes to the group (i.e., employer-sponsored) and individual health insurance markets in the United States, as well as a variety of incentives for firms to offer health insurance and for people to purchase it. In this technical appendix, we describe how we incorporated these proposals – many of which are not yet spelled out in detail – into the ARCOLA simulation model.

- **New National Plan**

Senator Obama proposes to make available “a new national health plan that will give individuals the choice to buy affordable health coverage that is similar to the plan available to federal employees.”³ The new National Plan will be open to individuals without access to group coverage through their workplace or current public programs. It will also be available to people who are self employed and to small businesses. The plan will feature comprehensive benefits similar to those available to federal employees through the Federal Employees Health Benefits Program (FEHBP).

Combined with a requirement that all children have health insurance coverage (discussed below) and the implied assumption that such coverage will be comprehensive, we believe that the National Plan would have to be available to everyone.⁴ To make the National Plan available to everyone, we went through the following steps:

1. The National Plan would be most similar to the ‘standard option’ Blue Cross plan that is offered to federal employees. This is a Preferred Provider Organization (PPO) in which members have low out-of-pocket costs if they use preferred providers.⁵ In the ARCOLA model, the Blue Cross plan is like the ‘high-option’ PPO that is available to all individuals without employer-sponsored insurance and to some employees with ESI. This plan represents the 75th percentile of all PPOs offered to U.S. workers in terms of the generosity of its benefits.
2. We assumed that firms would not offer the National Plan in addition to their current plans. Many employers, especially small ones, only offer one health plan because they don’t want the additional administrative expense of managing multiple offerings. Therefore, they would drop the plan they currently offer that

³ “Barack Obama’s Plan for a Healthy America: Lowering Health Care Costs and Ensuring Affordable, High-Quality Health Care for All,” available from <http://www.barackobama.com/issues/healthcare/>

⁴ The alternative route for covering kids would be to enroll them in Medicaid or the State Children’s Health Insurance Plan (SCHIP). We believe that parents would prefer the National Plan over Medicaid or SCHIP and thus it would have to be available to everyone in order to cover all children.

⁵ Information on the health plans offered to federal employees is available from the U.S. Office of Personnel Management, <http://www.opm.gov/insure/08/planinfo/open.asp>.

is most similar to the new National Plan. The following table shows the current and proposed sets of plan offerings in the ESI sector:

| Current Offerings | Proposed Offerings |
|--|---|
| 1 Plan: Medium-option PPO | National Plan |
| 2 Plans: Medium-option PPO, HMO | National Plan, HMO |
| 3 Plans: Low-option PPO, High-option PPO, HMO | Low-option PPO, National Plan, HMO |
| 4 Plans: Low-option PPO, Medium-option PPO, High-option PPO, HMO | Low-option PPO, Medium-option PPO, National Plan, HMO |

- Community Rating

The Obama plan features a “National Health Insurance Exchange” that will help individuals who wish to purchase a private plan as well as the new National Plan. All plans offered on the Exchange would feature premiums “that will not depend on health status.” We interpreted this as a requirement for community rating (i.e. charging the same premium to every purchaser) in the Exchange. In order to keep the Exchange from losing good risks to private insurers who offer lower premiums, it is a foregone conclusion that *all* individual health insurance products would have to be community rated. We implemented this requirement by calculating a single, national premium for each plan and coverage type offered in the individual health insurance market. We assumed that premiums in the ESI market would continue to be rated on the basis of firm size.

- Cover All Kids

The Obama plan requires mandatory coverage of all children, but does not specify how this mandate will be implemented. The issue of how to enforce mandates is controversial. One of Senator Obama’s advisors, David Cutler of Harvard University, has been quoted as saying, “You’ll never get someone to buy something if it’s not affordable and accessible. People just don’t do it.”⁶ We took this comment literally by assuming the only way to cover all kids would be for the government to take on the responsibility to coordinate the full economic cost of fulfilling a child mandate. To do this we assume the per capita cost of a child’s health coverage in our simulations is \$3,866. This estimate is based on market insurance data used to calculate premiums in the model.

This approach would have broad-reaching implications for the nation’s health insurance markets. After children were removed from the health insurance rating pool, the cost of covering remaining family members would fall. Accordingly, we reduced the cost of all

⁶ David Cutler, in “Richard Eskow Talks to David Cutler,” February 7, 2008, available at <http://delong.typepad.com/sdj/2008/02/richard-eskow-t.html>.

family plan options in the ESI and individual markets by 33%. This would make insurance more affordable for the remaining family members and, therefore, would contribute to increased take-up. We assumed that employers would continue to pay the same percentage of the total premium as they do now.

- Reinsurance

The Obama plan would reimburse employer health plans for a portion of catastrophic costs they incur above a threshold if they guarantee the savings would be used to reduce employees' premiums.⁷ We assumed this proposal would reduce employees' premiums by 10%, which is the current average cost of private reinsurance. Government costs would increase by the same amount. As above, we assumed that employers would continue to pay the same percentage of the total premium as they do now. The premium adjustments for all aspects of the Obama proposal we modeled were multiplicative.

- Low-Income Subsidy

The Obama plan includes a subsidy to help low-income individuals buy health insurance. Since the details of that subsidy have not been spelled out, we assumed that it would be similar to a subsidy proposed by the Bush Administration in 2004.⁸ Individuals with incomes up to 25th percentile would receive a 50% premium subsidy (families would be 50% subsidized up to 25th percentile for families); the subsidy would be phased down to 0% at the 50th percentile of income for individuals and families.

- Small Business Tax Credit

The Obama plan includes a tax credit to help small businesses buy insurance. We assumed the credit would be available to employers with 50 or fewer employees and it would subsidize 50% of the *employer's* premium contribution. In order for the credit to make insurance more attractive to *employees*, we assumed (as is standard in economics) that 100% of the credit would be passed to the employee in the form of higher wages.

- 'Play or Pay'

The Obama plan requires all employers to contribute to health coverage for their employees ('play') or pay a tax to support the cost of the National Plan ('pay'). Details of the tax have not been spelled out, but we followed a recent proposal by the Commonwealth Foundation that the tax be 7 percent of payroll up to \$1.25 per hour.⁹ To

⁷ Only employer health plans would be eligible for the reinsurance subsidy. All premiums in the individual market would be community rated, so reinsurance would not be an issue in that market.

⁸ U.S. Department of the Treasury, General Explanations of the Administration's Fiscal Year 2005 Revenue Proposals, February, 2004. The Bush Administration proposed a low-income tax credit rather than a subsidy, but we borrow the income thresholds used in that proposal.

make this tractable for our simulations, we assumed a tax rate of \$1.00 per hour and full-time employment (2,000 hours per year), which yields an annual tax of \$2,000 per worker for employers that do not offer ESI.

Next, we specified the cost-benefit calculation that an employer would make in considering whether to play or pay. Suppose it currently ‘plays’, i.e., offers insurance. The benefit from dropping insurance is that the firm’s workers might qualify for the low-income subsidy. The cost of dropping coverage is equal to (a) the \$2,000 tax plus (b) the tax subsidy currently provided to the employer-paid portion of the premium plus (c) the difference in the cost of the employee’s preferred plan in the individual market compared with the group market. The third term arises because group insurance has a lower administrative cost than individual insurance of the same policy and coverage type.¹⁰ The firm would drop coverage if: *low-income subsidy* > *\$2,000 tax + subsidy for employer-paid premium + difference in administrative cost*. We determined whether this inequality is/not met for every worker who currently has an offer of ESI and does not turn it down. If the inequality is met, we assumed the employer drops ESI and the worker purchases his or her preferred coverage in the individual market; if not, there is no change.

For people whose employers currently do not offer insurance and who buy a product in the individual insurance market, the cost-benefit calculation is reversed. Their employers would offer insurance if: *low-income subsidy* < *\$2,000 tax + subsidy for employer-paid premium + difference in administrative cost*. We determined whether this inequality is/not met for all eligible workers. If it is met, employers offer their preferred plans with 100% sign-up;¹¹ if not, there is no change.

⁹ Cathy Schoen, Karen Davis, and Sara R. Collins, “Building Blocks for Reform: Achieving Universal Coverage with Private and Public Group Health Insurance,” *Health Affairs*, 27:3 (May/June, 2008), pp. 646-657.

¹⁰ For example, a high-option PPO for family coverage might cost \$9,000 in the ESI market and \$12,000 in the individual market.

¹¹ We assumed that employers that newly offer ESI would pay 86% of the single-coverage premium and 75% of the family-coverage premium. These percentages match those from small employers that currently offer one ESI plan.

General Company Information

HSI Network (HSI) is a limited liability company with offices in Minnesota, Connecticut and Virginia that performs sophisticated health care econometric analyses using administrative data. HSI was incorporated in 1998 in New York State. Gross revenues reached one million dollars by winter 1999. The majority of revenues are distributed to researchers, analysts and academics working with HSI. HSI operates on cash accounting basis and no liquid assets are carried year to year with the exception of operating expenses and partner travel stipends. HSI carries 1 million dollars of general liability insurance with an additional 1 million dollars of coverage for errors and omissions.

HSI is supported with dedicated Masters level analyst/programmers and the fifteen terabyte capacity of HSI Network LLC's distributed fire-wall protected network of SAS and SQL servers.

Recent HSI projects completed and ongoing include:

- Evaluation of United Health Group's Mid Atlantic Division disease management program.
- Confidential evaluation of an independent disease management vendor's long term performance using claims data from a large employer with over 200,000 covered lives operating in the New York/New Jersey/Pennsylvania Tri-State region.
- Expert design consultation and training for United Health Group Europe's provider performance tools using administrative and clinical records from the United Kingdom.
- Development of CS-PURE, a claim-based dashboard application in Microsoft Access designed to identify patients with potential controlled substance utilization patterns. See Parente, S.T., Kim, S., Finch, M., Schloff, L., Rector, T., Seifeldin, R., Haddox, J.D. "Using Claims Data to Identify Controlled Substance Patterns of Utilization Requiring Evaluation." *American Journal of Managed Care*, November, 2004; 10(11 Pt 1):783-90.
- Contracted vendor for i3/Innovus to complete health economic and pharmacoeconomic analyses.
- Vendor for claims-based evaluations of carriers serving the CHAMPUS Tri-Care program (1998-2003) and the Department of Defense (2005 to 2008).

HSI brings together leading academics from across the country to apply their knowledge and expertise in answering pressing business questions. This results in transfer of state-of-the-art methodology from academics to application in firms. Our associates, who hold Ph.D.'s from institutions such as Johns Hopkins, Wharton, and Harvard University, have published articles in *The Harvard Business Review*, *Journal of Finance*, *American Economic Review*, *Journal of Accounting & Economics*, and health care journals including *Health Affairs*, *Medical Care*, *Journal of Health Economics*, *Health Services Research*, and *Medical Care Research & Review*. In addition to the Ph.D. level associates and partners in the areas of economics, health economics, accounting, and finance, HSI employs a staff of statistical analysts experienced in the use of large administrative claims databases.