

## **Predicting the Effects of the ACA – Understanding Microsimulation Models**

**Moderator: Elizabeth Lukanen**

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Elizabeth Lukanen: Hello. Thank you for attending today's webinar Developing Projections for Health Reform, Understanding Microsimulation Models. My name is Elizabeth Lukanen and I'm a Senior Research Fellow at SHADAC and I'll be monitoring today's event.

Microsimulation models are increasingly being used to inform many policy decisions raised by the Affordable Care Act, particularly among states. We have two speakers today that will address issues related to microsimulation modeling.

Our first speaker, Dr. Jean Abraham will review five major microsimulation models discussing their key components, similarities and differences and questions that states should consider when contracting for or using modeling outputs.

Our second speaker Danielle Holahan will share New York's experience working with a microsimulation vendor. We'll close the webinar with questions and answers.

Before we start I just want to cover a few technical details. Broadcast audio is available for today's webinar but if you're having trouble or you'd prefer to listen on your telephone please dial 1-800-920-3371. And questions for our speakers can be submitted throughout the webinar via the chat feature on the left-hand side of your viewing screen.

Now I'd like to turn over the webinar to SHADAC Director Lynn Blewett to give her welcome.

Lynn Blewett: Thank you, Elizabeth. Welcome, everybody, too. Thank you for joining us today for this webinar. For those of you who are not familiar with SHADAC we're an independent research center based at the University of Minnesota.

We provide data and evaluation technical assistance to states on issues related to health insurance coverage and access to care and we're particularly focused on helping states as they implement the Affordable Care Act. We're please to be able to offer this webinar today and want to thank Jean and Danielle for participating.

This webinar is being sponsored by the Robert Wood Johnson Foundation State Health Reform Assistance Network. We want to thank the foundation for their support and invite Deborah Bae, Senior Program Officer on Health Insurance Coverage Team to say a few words. Deborah.

Deborah Bae: Thanks, Lynn. I also want to provide my thanks and welcome to you all. On behalf of the foundation and the State Health Reform Assistance Network I'm

pleased to welcome you to today's webinar. We're very excited to be collaborating with our friends at the State Health Access Data Assistance Center or SHADAC on this webinar.

I'd also like to thank Danielle Holahan from New York for joining us today to talk about this important topic and its implication for states. I want to just take a minute to explain the State Health Reform Assistance Network and its role in the work that will be presented today.

Following the passage of the Affordable Care Act the foundation recognized that the passage of legislation that had the potential of covering 32 million Americans only the beginning of the process of insuring these people actually get covered.

The foundation realizes that it will take a great many resources for states to implement their new responsibilities. The foundation is funding the state network to provide targeted operational level technical assistance in order to implement the coverage provisions of the Affordable Care Act and a cohort of 10 selected states.

Working with SHADAC to help states analyze and use data to drive policy decisions is just one aspect of technical assistance being provided by the state network. We're also working to help states on Exchange development, Medicaid expansion and insurance market reforms.

If our technical assistance experts and states continue to develop tools and models useful to other states, we will disseminate that information on webinars similar to this one and through our Web site at [statenetwork.org](http://statenetwork.org).

It's now my pleasure to turn the webinar over to Elizabeth Lukanen, Senior Research Fellow at SHADAC. Thank you so much.

Elizabeth Lukanen: Thanks, Deborah. And now we'll get going on to the content. Our first speaker, Dr. Jean Abraham, is an Assistant Professor at the University of Minnesota School of Public Health Division of Health Policy and Management. Jean?

Dr. Jean Abraham: Thank you and welcome to today's webinar entitled Predicting the Effects of PPACA, A Comparative Analysis of Health Policy Microsimulation Models. Thank you for joining us today.

As Elizabeth mentioned my name is Jean Abraham and I'm presenting work today that is in collaboration with Lynn Blewett, Julie Sonier and Elizabeth Lukanen who are colleagues of mine at the University of Minnesota.

Before we begin I would like to thank the team at SHADAC for all of their assistance in coordinating today's webinar and I would like to thank the Robert Wood Johnson Foundation for funding this study.

As brief introduction as Elizabeth mentioned I'm an assistant professor here in the Division of Health Policy and Management at the University of Minnesota.

My areas of expertise include health economics and policy and I maintain an active research portfolio, focusing on issues relating to private health insurance demand and insurance market competition.

In 2008, 2009 I had the privilege of serving as the Senior Economist on Health for the President's Council of Economic Advisors in Washington D.C.

Subsequent to that I focused a significant amount of my research on the potential implications of federal health reform.

In today's presentation I will be addressing the following three questions. First, what are the health policy microsimulation models and what are their components?

In addressing this question I will discuss aspects of the data infrastructure as well as the behavioral assumptions used by the models with respect to how individuals and employers respond to policy changes.

The second question I will address is what are the similarities and differences among the major health policy models being used by state governments and private organizations with respect to these components? Finally when considering various models I will talk about some of the questions that states might be interested in asking.

A microsimulation model is an important tool for estimating the potential behavioral and economic effects of public policies on decision-making units, including individuals, households and employers as well as government.

Microsimulation models were utilized throughout the development of the ACA and continue to play a prominent role in understanding the likely effects that major provisions will have on insurance coverage and cost at the national level and increasingly within individual states.

The latter is particularly important as states, which start from very different political, social and economic circumstances, have considerable flexibility as they implement the many provisions of the Affordable Care Act.

Microsimulation models have existed for quite some time although they've evolved dramatically in recent years in terms of their capabilities. Today there are five major health policy simulation models being used by the federal and state governments as well as private organizations.

The first of these was developed by the Congressional Budget Office, or CBO, an agency within the federal government. This simulation model is used extensively to score legislation and was used during the ACA legislative process.

Four other models are owned by private entities. These include the GMSIM model developed by Dr. Jonathan Gruber at MIT. This model was also used by the executive branch during the development of federal legislation.

The compare model, developed by the RAND Corporation, the Urban Institute's Health Insurance Policy Simulation Model, or HIPSIM, and the Lewin Group's Health Benefits Simulation Model.

I'll note that other microsimulation models exist both in government, such as the one developed by the U.S. Department of Treasury's Office of Tax Analysis, as well as the private sector.

However the models listed on this slide have dominated in practice and are what I will refer to as the major health policy models or major microsimulation model.

With respect to our methodology, my colleagues and I conducted a comprehensive review of publicly-available technical documentation for the major health policy simulation models and then developed a set of dimensions

on which to compare and contrast these models in ways that would be useful for analysts and policymakers.

Let me now begin with an overview of microsimulation models, including their key components and the types of information they can provide to analysts.

As part of this discussion I will highlight important similarities and differences among the models with respect to their data structure, incorporation of behavioral assumptions and outcome.

The foundation of any microsimulation model is the data infrastructure. The major models all use individual level population survey data from federal sources to represent the U.S. population.

These population survey data include information about individual's demographics, household structure, income, employment status and health insurance coverage including the distribution of different types such as employer-sponsored insurance, or ESI, non-group or individual coverage, Medicaid or CHIP, or uninsured.

Since a primary focus of these models is to estimate the effects of public policies on coverage, and because ESI is the predominant way through which the non-elderly population obtains coverage, these models also use data on U.S. employers to capture the distribution and characteristics of businesses in the United States.

The third core data set source used by microsimulation models include federal and proprietary survey data to capture medical care spending and premiums.

Modelers use these data to estimate health insurance premiums for both employer-sponsored coverage and the non-group market.

The modelers use sophisticated statistical techniques to assemble a dataset that accurately reflects individuals, their labor force attachment and the types of coverage they have at present in the United States.

With the data infrastructure modelers are then able to simulate the effects of a variety of policies by using information about those policies and applying assumptions or decision rules about how individuals and employers may respond.

These behavioral responses are derived from estimates in peer-reviewed scholarly research and are most often incorporated at price changes. For example these models use information about individuals' price sensitivity as it relates to whether or not they take up health insurance, such as employer-sponsored insurance or non-group coverage.

Other research focusing on public insurance is also leveraged, including an individual's probability of enrolling in a public program if they are eligible or whether a person who is eligible for employer-sponsored insurance would switch to public insurance upon gaining eligibility.

The decisions made by employers play a large role in terms of non-elderly individuals' access to health insurance.

The employer's decision about whether or not to offer health insurance as a fringe benefit is the most important of these decisions, followed by plan generosity which is captured by total spending or actuarial values and the employer contribution towards the premium.



As a number of health economists have shown, employers' price sensitivity with respect to offering coverage is strongly related to their firm size. Small firms are much more sensitive to changes in premiums than large firms.

In addition to the offer decision, employers might respond on other dimensions including the generosity of plan, as well as the share of total premium that they pay relative to the employee. These spotter factors in turn affect individuals' behavior in terms of their demand for employer group coverage and other types of health insurance.

With respect to outcomes, there are a number that microsimulation models generate. Among the models that we examined in this study the most common outcome is the distribution of insurance coverage.

Of course the models are able not only to generate an overall distribution, but they can show how the distribution varies by income, geography and other factors.

With respect to employers, microsimulation models can inform policymakers and analysts about how ESI offer rates and premiums may change given policies. They can also inform federal and state governments about how provisions will affect public program participation as well as spending.

Finally, the outcomes can be used jointly to assess the efficiency and effectiveness of particular provisions, including generating estimates of the cost per newly insured person as an example.

Let's take a closer look now at the data infrastructure on the model. Three population data sources representative of the civilian non-institutionalized U.S. population are used.

The first of these is the Current Population Survey Annual Social and Economic Supplement. The CPS is the source considered by many to provide the quote official estimates of U.S. health insurance and they are widely used by economists and health services researchers.

The CPS can also support state level estimates for a majority of states. Next is the Survey of Income and Program Participation, or SIPP, which is smaller in size but follows individuals over time and includes more detailed questions about income and public program involvement.

The third data source is the Medical Expenditure Panel Survey Household Component, or the MEPS. This survey is sponsored by AHRQ. Its key contribution is that it contains detailed information on individuals' medical care spending, as well as insurance.

The models also use three sources of data on U.S. employers. These include the Statistics of U.S. Businesses, the National Compensation Survey and the Kaiser Family Foundation, HRET, Employer Health Benefits Survey.

A key feature of all major models is the concept of synthetic firms. Modelers use a statistical matching methods to take working individuals from population surveys and group them together in ways that reflect how they would likely be distributed within and across U.S. firms.

This is a critical step as economists believe that employers' decisions about how - about health insurance provision are a function of the characteristics

and preferences of their workers. To illustrate this process suppose we have individual level data on 500 workers and let there be just three firms in this economy.

Now each firm has a different number of workers employed, that's denoted by the  $N$ , and each firm is located in a different geographic location and two offer insurance but one does not.

Modelers will use this information as well as information reported by individual workers about their employer size, geographic location and whether they have an offer of coverage or not to match them to firms that also exhibit those attributes.

Now this slide provides a side-by-side comparison of the population and employment data used by each model. One can see that the CPS is used by two models, the SIPP is used by two models and the MEPS is the coordinated source used by the Lewin Group.

For employment data, two models used the National Compensation Survey while another used - two used the SUSB. The Lewin Group uses a combination of data from the Kaiser Family Foundation as well as a detailed employer survey that was sponsored by the Robert Wood Johnson Foundation.

Now you might notice that the core population data used by these models are not always the most currently available, however the modelers use calibration and adjustment techniques to update the population attributes so that they in fact reflect current demographic distributions in the United States.

In addition to developing the population and employment infrastructure, another area of focus is the estimation of premiums that would be charged for private insurance, including ESI and non-group policies.

Three primary data sources used by the models include the MEPS Household Component from which the modelers use individuals' medical care spending data to construct premiums, the MEPS Insurance Component which is an annual federal survey of U.S. establishments that collects information on premiums, employer and employee contribution and coverage types for businesses offering health insurance, and the Kaiser Family Foundation Employer Health Benefits Survey which is also an annual survey of employers regarding their health insurance provision.

Now there are two basic methods used by the models with respect to constructing ESI premium.

The first is to estimate premiums using predicted medical spending among workers and dependents affiliated with each synthetic firm then aggregating across the firm and then applying adjustments for loading fees which represent administrative expenses or profits and then finally accounting for insurance market regulations particularly for small employer groups.

A second approach uses reported premium data found on the MEPS insurance component or the Kaiser survey and applies adjustments to account for generosity differences by firm size, geographic variation and cost or state regulatory environments that would affect the fully-insured small group market.

Modelers are also focused on estimating premiums for the individual or non-group market.

Specifically since Exchanges are expected to play a large role in facilitating the buying and selling of individual policies, it's really critical that modelers can effectively estimate premiums for both the baseline phase that is prior to implementation and scenarios that incorporate ACA market regulations such as modified community rating and the availability of premium subsidy.

For the baseline scenario the most prevalent method is to use individual health spending information from the MEPS household component and adjust for demographics, health status and geography.

Modelers then apply a loading factor to reflect administrative expenses and profits, consistent with what is known about them in the individual market. This slide provides a side-by-side comparison of the data sources and ESI premium construction methods used by each of the models.

As one can see the MEPS household component is the predominant source used for this purpose, although a number of other sources are used in conjunction with it. Each model uses a somewhat different set of steps to arrive at expected spending.

They also vary in terms of how they adjust for plan generosity, typically measured using the actuarial value as well as administrative loading fees, although both plan generosity and administrative loading fee assumptions are based on empirical evidence from the research literature.

For non-group premiums every model uses information on medical care spending and then applies a loading fee adjustment to capture administrative expenses and profits associated with the purchase of these plans.

Two models, Gruber's GMSIM or GMSIM and Urban's HIPSM model, also note that they benchmark their results to individual health plan premium findings reported by America's Health Insurance Plans, the insurance industry's trade association. Also one can see that most of the models also adjust premiums to reflect state specific information.

While PPACA includes hundreds of provisions relating to healthcare financing and delivery, those that are of greatest interest to policy-makers at the federal and state levels include the creation of Exchanges, the availability of premium and cost sharing subsidies for exchange-based plans, the employer-shared responsibility requirement, or the pay or play as it's known, the Medicaid expansion and the individual mandate that requires individuals to have insurance.

With the data infrastructure generated and the baseline scenario established the next step is to quantify the anticipated behavioral responses of individuals and employers given policy changes.

From this the modeler can generate summary output, including changes in the distribution of coverage, for example the number of uninsured individuals who gain coverage and other types of output.

Finally, models can incorporate information from this new scenario to recalculate premiums based on new risk pools and other information in order to estimate outcomes for the next time period.

So a key question is how do these models quantify the anticipated behavioral responses of individuals and employers? Well there are two general approaches used, an elasticity-based approach and a utility-based approach. Let me begin with the elasticity-based approach.

This approach, used by the Congressional Budget Office, Gruber and Lewin, relies on findings from the empirical health economics and health services research literatures to estimate changes in insurance demand an employer offers that result from changes in prices.

An elasticity is defined as the percentage change in quantity demanded given a percentage change in price because the outcomes in which we are interested are often binary.

For example we're interested in yes, whether a person takes up employer-sponsored insurance, versus no they don't, the quantity demanded is often expressed as a probability.

In addition to modeling individual behavior, modelers use evidence from the research literature on employer provision of insurance, including the factors that affect an employers' decision to offer coverage, the plan generosity and the determination of the out-of-pocket premium.

The latter two are both really important factors that affect individual's decision to take up an insurance policy. On this slide I've noted a few of the studies that are relied upon from modeling behavioral responses.

So here is a very simple example to illustrate the elasticity concept and how a PPACA provision would translate into a price change which in turn would affect behavior.

So let's suppose that a single individual earns below 400% of the federal poverty line, does not have ESI access and is currently uninsured. Under the

ACA, he or she would be eligible for a subsidy towards the purchase of an exchange-based plan starting in 2014.

Let's also suppose that in the baseline scenario a non-group plan would cost \$5000 per year but with the subsidy the cost to that individual would be \$3000, corresponding to a 40% reduction in the price.

Using this price change and an elasticity estimate of non-group take-up for someone who is uninsured, we'll assume it's negative 0.5, one would estimate that this person's probability of purchasing a non-group plan would rise by 20%.

What the models do in practice is actually considerably more sophisticated than what I've just said, however at a very fundamental level this is the way in which a policy would be translated into a price change and how that would be then translated into a behavior change.

Other models use what is called a utility-based approach. The basic setup of the utility-based approach is that each individual will have a set of insurance options from which he or she can chose, for example the choice among ESI, a non-group policy, public insurance or remaining uninsured.

The utility or satisfaction that an individual gets from selecting one of the options depends on their expected out-of-pocket costs under each option, the value of healthcare consumed under each option, their out-of-pocket premiums, the tax incentives associated with the option, in particular the favorable tax treatment of employer-sponsored insurance and their out-of-pocket expenses relative to their income.



Information from the legislative provisions is then translated into the facts on one or more of these factors. The models also tend to incorporate information about non-monetary attributes of options such as the stigma of public insurance. But there's very little detail available in the technical documentation as to how this is exactly done.

In utility-based approaches, the firm's decision to offer insurance is contingent on workers total willingness to pay, that is, the combined willingness to pay of all workers in that synthetic firm for insurance as compared to the total cost to the employer of offering insurance as a fringe benefit including the premium and the HR administrative fixed costs.

The willingness to pay can be calculated from the equation that corresponds to the utility model. The individual in a utility-based approach is assumed to choose the insurance option that maximizes his or her utility.

Utility-based approaches are much more complex in terms of their estimation. One key advantage of this approach is that they do not rely as heavily on estimated behavioral responses that occurred in the past under different regulatory and policy environments.

However it's worth noting that these models are in fact checked and calibrated to ensure that the behavioral responses they generate are in fact within the historical range of reported elasticities.

In this slide I've provided a very basic summary of how each model incorporates the behavioral responses of individuals regarding their insurance choices.

Now I know there's a lot of detail on this slide and so rather than going through it point by point let me just make a few general observations here. First these models make a variety of behavioral assumptions about insurance price sensitivity depending on the coverage status of a person at baseline.

For example, a person who was uninsured at baseline might indicate that he or she has a low preference for investing in health and may not respond as much to the introduction of an exchange-based subsidy relative to someone who had sought out and purchased a non-group policy on their own that they find.

Second, models differ in terms of exactly how they use published estimates. CBO uses estimates from the literature as a guide while others use direct estimates or ranges from prior research. Third, the research literature informing specific behavioral responses varies a lot in terms of the quantity and quality.

For example, there's a very large literature to inform workers price sensitivity with respect to taking up ESI when they have an offer, but in contrast there's very little work to inform the price sensitivity of individuals purchasing coverage in the non-group market.

This is really important because of the expected demand for exchange-based plans among those individuals who are uninsured. The models also make a variety of assumptions about how employers will respond to various provisions. The most critical of those decisions is whether or not to offer coverage as a fringe benefit.

When estimating the impact of the ACA pertaining to employer offers of coverage, the models consider such factors as employer premium contribution, penalties that an employer would incur if they dropped coverage

or if it was deemed unaffordable, the value of the ESI tax subsidy to workers and any premium tax credits or cost sharing subsidies that could be obtained by workers in the firm under reform if that employer in fact dropped coverage.

Elasticity-based approaches use existing estimates from the literature and convert those policies into price changes to which an employer responds. In contrast, utility-based approaches weigh the gains and losses to employees of a firm and then aggregates those preferences to the firm level before arriving at the decision of whether the employer would continue to offer or not.

Microsimulation models can generate a substantial amount of summary data, although the most frequently reported information pertains to the coverage distribution and the changes in spending for individuals, employers and government that result from enactment of key coverage provisions.

While it would be valuable to generate side-by-side comparisons on the estimated effects from each of these models, this turns out to be a very difficult task.

Now there are a variety of reasons why estimates produced by these major models would generate different values. There are really three common reasons for this.

The first is that there are differences in the data sources or methods that are used to construct the baseline scenario. Second the simulation of policies use different reference periods.

Models might vary in terms of assuming implementation as of current year versus 2014 when Exchanges come on line or 2016. Third the results can be

expressed differently in terms of the anticipated changes in coverage or costs rendering it very difficult to make apples-to-apples comparison.

Fundamentally there are multiple factors driving differences across models and so it's important to understand these differences both with respect to the data and the assumptions that are being made that in turn would lead to differences in results.

Microsimulation models have and continue to be used by states in their ACA implementation effort. Most of the models do in fact incorporate some state-specific information particularly as it pertains to premium construction, however all of the models still rely on data infrastructure that is national in orientation.

In preparing for this webinar my colleagues and I have thought about some questions that state policymakers and analysts might be asking regarding data, policy scenarios and output capabilities.

First with respect to data, beyond adjusting for the demographics and health status profile of the population in my state, in what other ways can a model be customized to reflect the healthcare market environment that might reflect coverage and cost?

For example, does the model take into account practice styles or provider capacity in the state? Second, many states are faced with trying to understand the implications of a coverage expansion in local markets within a state.

So one question is what is the lowest level of geography that microsimulation models can capture? With respect to policy scenarios a couple of questions might be the following.

To what extent can a model incorporate decisions about state-based Exchange functions or other decisions that are being made by state policymakers that would affect premiums and coverage decisions, for example the decision to pool individual and small groups within the Exchanges?

Or how easily could certain provisions be relaxed in order to assess their importance? For example if the individual mandate is struck down how would this affect coverage, premiums and overall costs for my state?

With respect to output to what extent can a model generate information about distributional effects? In other words, what are the attributes or characteristics of the individuals who get - who are newly insured in my state?

Also how might the model results be used to assess the impact of the policy from an economic standpoint, that is to be able to measure the effectiveness and efficiency of the policy? Finally, what value does the model have after 2014? How can it be used longer-term regarding implementation?

In this presentation I've provided an overview of health policy microsimulation models that are being used by governments and other organizations for understanding the potential effects of the ACA on coverage and cost.

Microsimulation models vary in terms of the data infrastructure and approaches for simulating how provisions might affect the behavior of individuals and firms and the implications for government. While these models provide valuable information to guide decisions about implementation in state-based activity, all models have limitations.

Most importantly we want to recognize that the ACA is a very comprehensive piece of legislation and there is still much uncertainty as to how these provisions will be implemented across states, how provisions may interact with one another and how individuals and firms will ultimately respond given a very different health insurance marketplace particularly beginning in 2014.

It's my hope that based on what I've shared today that you've a better sense of how microsimulation models are constructed, their capabilities and the types of questions that may be valuable for more clearly understanding how these models and their results may be used during the implementation stage of the Affordable Care Act.

Finally, I've included hyperlinks corresponding to each model's technical documentation for your reference. Thank you for listening.

Elizabeth Lukanen: Thank you, Jean. That was a lot of great information. And I do want to just promote the issue, the corresponding issue brief that will come out in just a few days. It'll be emailed to all the participants and it will summarize the comments that Jean just made.

Now I'd like to turn it over to our next speaker, Danielle Holahan. Danielle is the Project Director for the Health Insurance Exchange Planning for New York State.

She leads the activities of New York's Health Insurance Exchange Planning under the guidance of Governor Cuomo's Deputy Director of Healthcare Redesign. Danielle will now talk about New York's experience working with a microsimulation vendor. Danielle.

Danielle Holahan: Right. Thank you for having me and I agree, Jean, that was terrific. So I want to talk about the work that we've done in New York working with the Urban Institute's HIPSM model.

We contracted with the Urban Institute to model for us the cost and coverage impacts of reform in New York. Should I - I can advance this slide, excuse me. So they modeled for us a number of scenarios.

First was the standard implementation scenario, it's the standard implementation of reform. And then they modeled the impact of various policy choices.

So the first was the impact of merging our non-group and small markets. Second we asked them to look at the impact of defining small groups as 50 or 100 in 2014, an option states have.

I didn't include this on the slide but we also had them include the impact of maintaining our Family Health Plus, which is a Medicaid expansion program in New York.

We have eligibility for parents to 150% of poverty today which exceeds the ACA requirement. So they looked at what the impact would be of maintaining or pulling back eligibility for that program.

And then finally the impact of implementing a basic health plan in New York. They used for us HIPSM-New York which is model tweaked - they tweaked their national model for New York and I'll talk about that in a little bit of detail in a minute.

But then just to sort of talk about the overarching questions that the model answers for us and what we were hoping to get out of this work.

Number one was the number of newly insured New Yorkers under reform and also their new and previous sources of coverage, so it was important to see where people came from and where they went, the estimated costs to government, employers, and individuals.

And as I mentioned above, the impact of various policy decisions, you know, what would be the coverage changes, the premium changes and the costs of the different groups of making these various decisions.

And, you know, ultimately the modeling results are intended to inform Exchange policy decisions and budget needs and I'll talk about that in a bit more detail as well.

So we worked with the Urban Institute for this work because this builds on some work the state had done back in 2007. There was an effort under the previous administration to model universal coverage in New York pre-federal health reform.

And so the folks in the state had worked with Urban Institute to build a New York model, HIPSM-New York back then so we felt it would be more efficient to, you know, continue working with the Urban Institute to tweak the model and, you know, we would hit the ground running essentially.

And obviously we had a great experience with the Urban Institute then and wanted to keep working with them in the current experience. So this current contract began last April. We developed the scope of work with an interagency Exchange planning team.



So, folks from our governor's office helped and insurance departments all worked together to determine, you know, what would be the key questions and key deliverables we were looking for.

The contract cost is about 150,000 for this work. And the deliverables, we've gotten numerous rounds of output from Urban. We - they have a standard output that they produce which is a series of five tables and figures delineating the cost and coverage impacts.

And so we would get that for each of the scenarios. And, you know, they could give us reams of data but I think they wanted to keep it digestible and not overwhelm.

And from there we had questions and requests for additional detail but that was basically their standard output. We also had Urban come to New York actually on two occasions to present the results.

The first we had a smaller meeting to present the basic health plan results and then more recently they came again and presented to a group of about 150 stakeholders the impact of the modeling results on all scenarios.

And then finally we're in the process of - they're finalizing a written report on all of this. We've been going back and forth on some edits but I anticipate we'll be releasing it within the next couple of days. Some other detail, I mentioned that they tweaked their model to be New York-specific.

So how - we, myself and colleagues in our insurance and health departments provided Urban with public program enrollment and spending data as well as

commercial plan premium data and then some specific data on a New York program helping New York to inform the New York baseline.

And so I guess just a little bit more about how we're using this. Clearly for Exchange planning purposes it was important to know the estimated enrollment in the Exchange, both the individual and shop.

This (isn't) the five-year budget estimates that we're doing. And I guess I'll just say all of the modeling that Urban has done for us assume full implementation in 2011 which is, you know, Jean walked through, you have options here.

They made the decision that we wouldn't try to estimate change between today and 2014. It was easier to, you know, isolate the impact of reform in the current year.

So in order to inform - to use the modeling estimates to inform budget projections we had to make additional assumptions about the phase in of enrollments.

But it was enormously helpful to have the modeling to inform that analysis which is being done for us by a separate consultant. I mentioned the number of the people in the Exchange, critical.

The reduction in the uninsured has been a very important statistic. On the basic health plan analysis they looked at, you know, the impact of the residual Exchange.

If we implemented a basic health plan, you know, how - what would this do to the Exchange? By what number would we reduce the size of the Exchange and what impact would this have on premiums?

They did - their modeling did estimate that the basic health plan population was on average healthier and lower cost than the Exchange as a whole. So by removing them from the Exchange market and pulling them into a basic health plan that had an impact on Exchange premiums.

And these are really important pieces of information to have for analyzing that policy decision. And then another very important data point was the estimated state savings as a result of reform.

And that was largely due to the impact of the enhanced federal match that we'll be getting with reform for new eligibles but importantly for New York as an expansion state for our single adult population that we were already covering.

So they have estimated for us significant state savings as a result of reform. And that has been a very important data point in our ongoing conversations about implementing reform in New York.

The work also satisfied legislative requirements for studies on market merger of group size and basic health plan. So it's important for that piece as well. And I mentioned already that we did, you know, a series of presentations with the Urban Institute.

And of course myself and colleagues have presented these statistics within a number of different presentations where we're talking about Exchange work

and making the case for the Exchange and as well as describing the impact of policy choices.

The question came up about what level of data can they provide. The vast majority of this analysis has been at the state level, but Urban was able to produce for us a regional level analysis through some complicated mapping to the ACS survey to do - to analyze the reductions in the uninsured at a regional level. And that's been very important for us as well.

And just a comment, you know, I think this has been very well received as we've presented it. I think one, you know, people did have some questions around the concept of, you know, full implementation in year one with regard to, you know, enrollment numbers and premium impact. But by and large it's just been enormously helpful to have this information.

So I will turn it back over to Elizabeth, but I'm happy to answer any questions about our experience with this. Thanks.

Elizabeth Lukanen: Thank you, Danielle. It's really great to have some context and to hear from a state experience and how they use the model. So now we're going to answer or open it up for questions and thanks to everyone who submitted questions to the chat feature.

I will key these first two questions up for Jean. The first is probably a question that many of you have been asking which is are any of these models considered outliers or are they all well-regarded by the field? You know, is there one that you should choose over the other?

Dr. Jean Abraham: So my response to that is that is I think they are all well-regarded in practice. That's one of the criteria that as we were identifying which of the models, which set of models to compare, we were thinking about that.

I mean I think each model has some advantages and disadvantages. Obviously the models generated by the Urban Institute and the RAND Corporation take this more kind of complex, utility-based approach that gives them a little bit more flexibility.

On the other hand for example the Gruber model is - has been developed over the last decade and relies on a lot of research findings that Dr. Gruber produced himself, so, and is well-regarded in the field, so basically, you know, these models all have different strengths and weaknesses.

In terms of - obviously the CBO model is held inside and so that's kind of a little bit off the table in terms of being used by other entities, but all four of them have good value and have strength.

Elizabeth Lukanen: Great. The second question is about undocumented immigrants. How do each of these models simulate the legal status of non-citizens?

Dr. Jean Abraham: Yes. So this is a big issue because of the treatment of undocumented individuals with respect to the Medicaid expansion. And basically within much of the core data that we have - that these models use, there isn't good information on whether or not an individual is documented or not.

And I will say that in reviewing kind of the documentation, we know that the Urban Institute and the RAND Corporation, both those models, do some adjustment to the CPS based on work by (tasell) that basically imputes the

documentation status of individuals within these data and then make some adjustments to try to account for that.

Elizabeth Lukanen: Okay, great. Danielle, a few questions for you. Are there any pieces of information that New York didn't get from Urban that they wished they had or things that, you know, changes to the contract that if you could do it again you would maybe do differently?

Danielle Holahan: You know, I think in an ideal world we could get some more regional level data. I do think Urban has said that over time they thought that would be increasingly more possible to do.

But I guess they've been very flexible with us. So - to the degree we've had questions throughout. For example, there was maybe some skepticism about some of the premium impact and they were able to produce for us supplemental data describing the demographic profile of the population pre-imposed.

So, you know, we've been able to go back and request information. I guess I would advise building into your contract a little flexibility for additional requests because you don't know what you're going to want until you see, you know, you see the initial output.

But they, you know, we did have flexibility for that and we've definitely used it because what you see always produces more questions.

Elizabeth Lukanen: Are the results for New York publicly available and if so where can people find them?

Danielle Holahan: I should have said that. They are. They're on our Web site which is [healthcarereform.newyork.gov](http://healthcarereform.newyork.gov).

Elizabeth Lukanen: And we can send that along with follow-up email.

Danielle Holahan: So right now what's posted is the PowerPoint presentation that Urban Institute gave on February 2, but soon, in the next couple of days the actual report will be up. There's actually some documentation as well about the methodology. But everything will be there in a matter of days.

Elizabeth Lukanen: Great. Another couple questions for Jean. We've had a lot of questions related to the availability of sub-state estimates whether or not the three-year output of the American Community Survey is being used, so if you could address some of those issues that would be great.

Dr. Jean Abraham: Sure. And of course from a state perspective it's really critical that they get information on kind of not only the number of uninsured but where they're located.

So trying to understand the - those patterns kind of within a state and then to think about the factor implications of that for the delivery system, namely around insuring that there is sufficient provider capacity given the coverage expansion.

With respect to some of the state-specific models, as Danielle alluded to, they weren't able, you know, most of these models are able to do some adjustment. Some of that depends in part on the availability - if there's a state specific survey that's been done that those data can be applied.

Also as was asked about the American Community Survey, it is in fact being used by some of the models to try to provide sub-state estimates and to get a little bit more precision around particular groups of individuals who might gain coverage to understand those effects.

So, they are - I think the modelers are interested in using that as a new data resource with respect to the insurance provision. And then with respect to other types of data really relying on existing county-level data sources such as the area resource file to help provide information about provider capacity.

Elizabeth Lukanen: Great. One more question for you, Jean. You mentioned that firm size is an input in, obviously a huge input in this modeling. Is hospitality - or I'm sorry, is industry such as the hospitality industry or manufacturing, is that kind of information used in these models?

Dr. Jean Abraham: It is used. There is some variation across industry in terms of employer provision of insurance and the generosity of coverage and spending, that's documented in the literature. Models vary in terms of their use of that particular factor with respect to the synthetic firm construction, but it is taken into account as well.

Elizabeth Lukanen: Great. And this is a question for you, Danielle, that you may or may not know. Do you know whether it was assumed that all eligible offering firms in the small group market would participate in the shop Exchange? And if not, do you know how Urban simulated the decision about whether to participate? Did you have any flexibility or state input on that issue?

Danielle Holahan: I don't know how to handle that, but I'd be happy to find out and circle back.



Elizabeth Lukanen: Okay. Another question for you, Jean. Do any of the models look at how employers obtain insurance, fully-insured versus self-insured?

Dr. Jean Abraham: Yes. So the models do a very good job of recognizing that within the group market firms can be fully insured, kind of buying off-the-shelf products from health insurance companies.

Or, they can make the decision to be self-insured, that is to bear the financial risk and then typically contract with a third-party administrator and also buy some stop loss coverage on the backend to protect them against outliers.

These models do incorporate some of that information into the premium construction into the - particularly around the tax status or the tax subsidy since self-insured - for self-insured plans the employer and employee contributions are tax preferred.

And then with respect to actually modeling the decision by the employer to be self-insured or not, I know that the RAND compare model does have a document available in the public domain that provides a lot of detail about that decision and what factors are likely to go into that because one of the issues that is arising is whether the additional provisions required by the Affordable Care Act on employers will lean more kind of smaller and medium sized firms to opt to self-insure in order to get out of some of those provisions.

Elizabeth Lukanen: Great. Thank you. Another question for you, Danielle. And this is sort of about the effort on the state. You talked a little bit about some data that you provided to Urban, but in terms of your effort, I mean was this something that you had a full time staff person dedicated for or would you say that it, you know, took minimal amount of your time to work with Urban? What was the sort of the output from the state's side?

Danielle Holahan: We did not have a full time person dedicated to this. You know, we borrowed from a lot of people's time. I put in a fair amount of time, you know, in fits and starts.

We had folks, you know, pull the data. That, you know, took a little bit of time at the outset. And then obviously, you know, our core Exchange team, you know, had to review the output and, you know, we did questions back and forth and that sort of thing.

If you - to the degree you want it tailored for your needs, you know, it is good to be involved. I wouldn't - it was certainly not a full time job but it did take a, you know, a chunk of time, you know, from myself and, you know, less from others.

Elizabeth Lukanen: Great. Thank you. And one clarifying question for Jean. In the sample, I think it was - I'm not sure which slide number, but it - you started with 500 individuals and then 160 were represented across firms and the questioner is wondering where in the model the other 340 are represented?

Dr. Jean Abraham: So this is the example I gave regarding synthetic firms was mostly for space constraints on the slide but basically the - in the construction of synthetic firms the modelers will draw from the population survey data to match workers to firms based on kind of similar characteristics reported in both datasets.

It is very common because of kind of data constraints that workers will actually be re-used in practice and so using actual physical observations that get assigned to multiple firms.

This is really, you know, again the most important piece of this is that when we think about how employers make decisions about health insurance provision we think it reflects the preferences and characteristics of the workers in that firm.

And modelers try to do their best to make sure to create these synthetic firms that do a good a job of that. And sometimes that requires some interesting algorithms including recycling observations. So in the particular illustration I gave it was - they would still remain in the population, I just hadn't assigned them all out.

Elizabeth Lukanen: Thank you, Jean. And unfortunately we are out of time but I want to thank Jean and Danielle very much for participating today. I think it was a really good merging of content.

Just to let all the participants know, a recording of this event will be posted on our Web site along with the issue brief that summarizes Jean's work and this will also be sent to you in an email.

To stay updated on the work that SHADAC is doing, we encourage you to sign up for our mailing list and to follow us on Twitter and Facebook. And finally I just want to thank again the Robert Wood Johnson Foundation State Health Reform Assistance Network for supporting this webinar. Have a wonderful day.

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