

Appendix A: Methods

No Wrong Door: Improving Health Equity and the Health Coverage Consumer Experience in Connecticut



Sample of Connecticut households: To obtain a large, representative sample, we pool together the Connecticut observations on the 2008, 2009, and 2010 American Community Surveys (ACS).

Eligibility for Medicaid/CHIP and subsidies: We use the Urban Institute Health Policy Center's ACS Medicaid/CHIP Eligibility Simulation Model.

Pre-ACA eligibility: Based on 2010 rules, the closest available approximation to the December 2009 rules specified in the Patient Protection and Affordable Care Act (ACA), as the basis for distinguishing new versus old eligibles.

Eligibility under the ACA: We compute modified adjusted gross income (MAGI), which includes wages, business income, retirement income, investment income, Social Security, alimony, unemployment compensation, and financial and educational assistance (see Modeling Unemployment Compensation in the appendix). MAGI also includes the income of any dependent children required to file taxes, which for 2009 is wage income greater than \$5,700 and investment income greater than \$950. Tax unit MAGI is computed as a percent of the federal poverty line, and this is compared with the ACA's 138 percent eligibility threshold for the Medicaid expansion.

Non-citizens: We impute documentation status for non-citizens in each year of survey data separately based on a year-specific model used in the CPS-ASEC. Documentation status is imputed to immigrants in two stages, using individual and family characteristics, based on an imputation methodology that was originally developed by Passel. Undocumented immigrants and legal immigrants resident less than five years are ineligible for Medicaid.

Eligibility for subsidies: We first model the presence of an affordable employer-sponsored insurance (ESI) offer, as defined in the ACA. Those not eligible for any form of public coverage, have family MAGI of up to 400 percent of federal poverty level (FPL), do not have an offer of affordable ESI coverage in the family, and are legally resident are eligible for subsidized coverage.

HIPSM (Health Insurance Policy Simulation Model): Once we have modeled eligibility status for Medicaid/CHIP and subsidized coverage in the exchanges, we use HIPSM to simulate the decisions of employers, families, and individuals to offer and enroll in health insurance coverage and then map those results using regression modeling to ACS to assign probabilities of take-up. To calculate the impacts of reform options, HIPSM uses a micro-simulation approach based on the relative desirability of the health insurance options available to each individual and family under reform. The approach allows new coverage options to be assessed without simply extrapolating from historical data, by taking into account factors such as affordability (premiums and out-of-pocket health care costs for available insurance products); health care risk; whether or not the individual mandate would apply; and family disposable income.

Our utility model takes into account people's current choices as reported in the survey data. For example, if someone is currently eligible for Medicaid but not enrolled, they or their parents have shown a preference against Medicaid. They will be less likely to enroll in Medicaid under the ACA than a similar person who becomes newly eligible for Medicaid and thus has not had a chance to express a preference. We use such preferences to customize individual utility functions so that their current choices score the highest among their current coverage choices, and these preferences affect their behavior under the ACA. The resulting health insurance decisions made by individuals, families, and employers are calibrated to findings in the empirical economics literature, such as price elasticities for employer-sponsored and non-group coverage.

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Changes in health insurance coverage under the ACA are computed in six main steps:

1. New Medicaid and CHIP enrollment. We begin by estimating additional enrollment in Medicaid and CHIP, both by those gaining eligibility under the ACA and those currently eligible, but not enrolled. Many characteristics are used to determine take-up, but the two most important are newly gaining eligibility and current insurance coverage, if any. For purposes of take-up, those with incomes below the 138 percent FPL threshold who are currently eligible for limited benefit Medicaid programs are not considered newly Medicaid-eligible unless their state's program is closed to enrollment.

2. Enrollment in the non-group exchange. We estimate enrollment in single and family policies in the non-group exchange, both by those eligible for subsidies and those ineligible. Undocumented immigrants are barred from the exchange. First, we estimate those who would be family policyholders based on the characteristics of their family and estimate enrollment for them and their family members who would be eligible for the same insurance plan. Then, for those not covered by family policies, we estimate enrollment in single plans.

3. Additional enrollment of the uninsured in ESI. There would be additional demand for ESI due to the individual mandate, small-group market reforms, and small firm tax credits. We estimate additional ESI enrollment for those currently uninsured with an ESI offer in their family and who would not enroll in coverage in steps 1 and 2 above. As with step 2, we treat single and family policies separately. In a full HIPSM simulation, employers change their ESI offer decisions, and there is movement both into and out of ESI. We do not currently model employer behavior on the ACS, but our results are similar to results from the full simulation with the CPS for overall level of ESI post-reform as well as the characteristics of the uninsured who gain ESI coverage.

4. Additional enrollment of the uninsured in non-group coverage. We complete the simulation by estimating additional enrollment in non-group coverage outside the exchange by those currently uninsured with no ESI offer in the family who would not

enroll in steps 1 or 2. This would be due largely to the effect of the mandate. There would be some additional coverage for the undocumented here as well, since it would be their only option for coverage without an ESI offer.

5. Transition from single to family ESI. The individual mandate will provide incentives for families to obtain coverage for all members. In particular, the expected utility model in HIPSM predicts a certain number of single ESI policyholders in families where other members are uninsured or taking non-group coverage would purchase family ESI to cover the entire family. We model such transitions on the ACS based on the behavior of single ESI policyholders in HIPSM with mixed coverage in other members. Such families are not common, but this transition captures a behavioral response to the individual mandate.

6. Transition from non-group to ESI. In addition to the transition from ESI to the non-group exchange in step 2, there are transitions in HIPSM from non-group coverage to ESI. These cannot be fully modeled on the ACS because we do not model changes in ESI offers, but we can model such transitions in cases where an ESI offer was present both with and without the ACA. Single and family ESI policies are considered separately. The number of people changed by this step is much lower than the number affected by most of the earlier steps, but this movement into ESI is a notable result from HIPSM.

We simulate insurance coverage decisions with and without NWD by running two HIPSM simulations, one simulating the ACA with NWD and the other without it. The lack of NWD affects behaviors in two ways. First, it makes it more difficult for those eligible for Medicaid or exchange subsidies to find out that they are eligible and more difficult for them to enroll. In particular, those who have the most to gain based on their characteristics such as health status will be the most likely to enroll. Second, with NWD, the integration of eligibility and enrollment between the exchange and Medicaid/CHIP should be seamless. Those seeking exchange coverage are screened for Medicaid or CHIP eligibility and can immediately enroll (or be automatically enrolled) if found eligible. We model this in the HIPSM coverage decisions for the ACA with NWD and without NWD:

- Overall take-up rates without NWD are comparable to those of current Medicaid programs and the experience of prior expansions of eligibility which did not include NWD.
- Take-up rates with NWD are those in our standard HIPSM model of the ACA.
- While overall take-up rates are set to these targets, each person's probability of take-up varies by his or her characteristics. Those with the strongest incentives to seek coverage are less likely to change their coverage without NWD.
- In the model, we explicitly model some of the effects of NWD. For example, if someone with coverage in the nongroup market seeks exchange coverage, the entire family is screened for Medicaid and HUSKY eligibility. In particular, this leads to more children being enrolled in HUSKY.

To translate the 26,000 more uninsured without NWD into a number of additional people experiencing spells of being uninsured during a typical year, we analyzed the 2008 Survey of Income and Program Participation (SIPP), a longitudinal survey that allows us to follow changes in health coverage as family circumstances change. We analyzed the difference between estimates of people uninsured at a point in time versus people uninsured at any point during the year, using these results to convert 26,000 uninsured at a point in time to an estimate of 36,000 ever uninsured during the year. The SIPP cannot produce representative estimates by state, so we had to apply patterns from nationwide data.

Endnotes:

1. Matthew Buettgens, Dean Resnick, Victoria Lynch, and Caitlin Carroll, "DOCUMENTATION ON THE URBAN INSTITUTE'S AMERICAN COMMUNITY SURVEY-HEALTH INSURANCE POLICY SIMULATION MODEL (ACS-HIPSM)," (Washington, DC: The Urban Institute; 2013) http://www.urban.org/health_policy/url.cfm?ID=412841
2. Resnick, D. "Imputing Undocumented Immigration Status in the American Community Survey." Washington, D.C.: Urban Institute, May 2013.
3. Details in Buettgens, et al., 2013
4. Buettgens, 'HIPSM Methodology: National Version,' (Washington, DC: The Urban Institute; 2011)