shadac
State Health Access Data Assistance Center

Modeling the Coverage Impacts of Complex Policy Changes: A New Tool for States

Julie J. Sonier, MPA
Peter Graven, Ph.D. Candidate

AcademyHealth Annual Research Meeting
June 24, 2012

State Health Reform Assistance Network
Charting the Road to Coverage

Support for this work was provided by a grant from the Robert Wood Johnson Foundation's State Health Reform Assistance Network Program.

Background

- States have an ongoing need for tools they can use to predict the health insurance coverage impacts of complex policy changes, such as the ACA
- Microsimulation models are one such tool – but have drawbacks for states
- Our goal was to develop a new tool as an additional option for states

State Perspective: Microsimulation Models as a Tool for Informing Policy

- Produce extremely useful information for decision makers, but also:
  - Expensive
  - Time consuming
  - Limited scenarios
  - Limited to no ability to influence assumptions or input data
  - Can't see inside the "black box"

Our Goal

- Develop a spreadsheet-based model that is:
  - State-specific
  - Flexible – user can adjust/test assumptions
  - Evidence-based
  - Transparent
  - Easy for state officials to use and understand
- Model can be used by states to predict the health insurance coverage impacts of policy changes

Approach

- Analyze how policy changes affect individual and employer behaviors, and how behavior changes translate into coverage shifts
- Model impacts on groups of individuals with similar characteristics defined by:
  - Age
  - Employer size
  - Income
  - Insurance type
- Begin with aggregated assumptions about impacts, and translate these into impacts on specific groups

Population Groups

435 total combinations: 75 for children and 360 for adults

Age Groups

0 to 18
19 to 25
26 to 44
45 to 54
55 to 64

Insurance types*

ESI (includes military)
Nongroup
Medicaid/CHIP
Medicare
Uninsured

*Primary source of coverage

Employer Size*

<=50
>50
No employer

*Largest employer in HIU

Income Categories*

<u>Children</u>

0 – Medicaid/CHIP%
Medicaid/CHIP - 200%
201 - 250%
251 - 400%
401% or more

<u>Adults</u>

0 – Medicaid%
Medicaid% - 138%
139 - 200%
201 - 250%
251 - 400%
>400%

*Number and boundaries of categories will vary by state

Data Sources

- Use state-specific data to the extent possible
  - 2010 American Community Survey: age, income, insurance type, and employment status
  - 2009 and 2010 MEPS Insurance Component: employer offer rates, worker eligibility, take-up
- Other data
  - 2009 MEPS Household Component: employer size, access to ESI, ESI take-up, health status

Baseline Estimates – Starting Point for Model

- Statistical matching between ACS and MEPS-HC using age, income, insurance type, region, race, marital status, education, sex, and industry
- Generate baseline estimates for each age/income/insurance type/employer size cell in the model
- For each cell: number of people, % with access to ESI, and % in fair or poor health

Analysis Modules

- Adjusted baseline
- ESI access
- ESI take-up
- Public program participation
- Nongroup coverage
- Exchange and Basic Health Plan

Model Assumptions

- About 35 different assumptions that can be adjusted by users:
  - Timeframe and population/employment trends
  - Access to employer coverage (19-25 dependents, small employer tax credit, employer offer rates)
  - ESI take-up
  - Public program participation
  - Nongroup coverage purchase decisions
  - Exchange and BHP participation

Default assumptions

- Default assumptions must be chosen carefully and well documented, to promote responsible use of the model
- Informed by:
  - Baseline values (e.g., participation rates in Medicaid under existing law)
  - Published research and available data – including results of microsimulation models, to the degree they are publicly available

Model Output

- Counts of people in each of the age-income-insurance type-employer size categories
- Distribution of insurance coverage by age group, income, and employer size
- Shifts in health coverage distribution compared to baseline
- Medicaid/CHIP enrollment: previously eligible and newly eligible
- Exchange and BHP enrollment (if applicable)

Discussion/Next Steps

- Our tool provides a valuable new option for state officials who want to analyze the impacts of complex policy changes
  - Although we constructed the tool specifically to analyze ACA impacts, the approach can be used for other policy changes affecting coverage
- We are currently working with a second state to refine and customize the model for their needs
- Continuing to refine the model logic and add features

Julie Sonier, MPA

Deputy Director, SHADAC

612 625-4835

jsonier@umn.edu

shadac
State Health Access Data Assistance Center

State Health Reform Assistance Network
Charting the Road to Coverage

Sign up to receive our newsletter and updates at
www.shadac.org

@shadac

ROBERT WOOD JOHNSON FOUNDATION
40 YEARS OF IMPROVING HEALTH AND HEALTH CARE

UNIVERSITY OF MINNESOTA
School of Public Health