MEPS Data and Analytic Capabilities for Supporting Health Policy Research

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Data, Tools, & Models

AHRQ plays multiple roles in supporting research on access, costs, coverage:

- Collects household and employer data and releases public use files, tables
- Serves as resource to other microsimulation modelers/ researchers by
  - Producing augmented research files for public use
  - Basic research to estimate key parameters used in simulation models
- Develops and maintains flexible micro-simulation models and components

Overview

- MEPS – Household Component
  - Public use files and reports tracking insurance, access, expenditures, burdens, and more
  - Augmented data products
  - Basic research
  - Microsimulation modeling
- MEPS – Insurance Component
  - Tracking employer offers, take-up, premiums, state level estimates
  - Microsimulation modeling initiative

MEPS-HC: Data

- One-stop data source for most key components of microsimulation (13,000 households, 35,000 persons)
  - Noninstitutionalized population, 96-06
  - Monthly insurance coverage
  - Employment, offers, take-up
  - Access, expenditures, use
  - Employee and nongroup premiums
    - Missing employer contributions to premiums and premiums for coverage not taken up
    - Missing data on health benefits

MEPS-HC: Augmented Data

- Federal and state income tax simulations (from NBER TAXSIM)
- 2002 data aligned to NHEA and projected forward to 2016
- Imputed employer contributions (regression-based IC models)
- Allocated spending not tied to patient events (e.g., DSH, provider tax subsidies)
- Other enhancements:
  - Immigration, citizenship status through 2005
  - Fully imputed jobs variables

Importance of Reconciling MEPS to NHEA

- Benchmarked, projected data are critical to all models and questions
- NHEA and MEPS provide the two most comprehensive estimates of health care spending in the U.S.
- Reconciling estimates from both sources serves as an important quality assurance exercise for both.
- Augmented MEPS files include expenditures adjusted for survey underreporting and more

Simulated Taxes

- MEPS collects detailed income and asset data that support simulation of federal, state, payroll, and property taxes
- Simulations produce estimates of: tax payments, marginal tax rates
- Send data files to NBER's TAXSIM
- Make further refinements and calculations in-house

MEPS-HC: Basic Research to Inform Simulations

- Premium elasticity of take-up (Blumberg, Nichols, Banthin)
- Tax-price elasticity of group coverage (Selden&Bernard)
- Tax-price elasticity of self-employed (Selden)
- Tax subsidies, winners-losers, and within-firm incidence of employer contributions (Bernard&Selden)
- Burden of health care (Banthin&Bernard)
  - Within-year burdens (Selden)

KIDSIM

- Detailed state-specific Medicaid and CHIP eligibility simulations for children and parents
- Yields most accurate estimates of eligible uninsured children (CBO letter, July 2007)
- Model used to estimate
  - Track progress over time
  - take-up rates
  - crowd-out rates
  - Simulated take up of coverage under possible expansion
  - Net costs of public coverage for children
- Currently updating model to 2007

PUBSIM

- Builds on KIDSIM for all non-elderly adults (esp. childless adults)
- Detailed state-specific Medicaid, CHIP and state funded programs - eligibility simulations
- Simulated disability status based on health and employment status

MEDSIM

- Developed in late 1990s to simulate equilibrium effects of medical savings accounts combined with high deductible plans
- Allowed for risk pooling, synthetic firms, premium spirals
- Expected utility maximization based model
  - Parameters for risk preferences
  - Marginal value of health care
- Included BENSIM – benefit simulation model based on 1996 benefit details
- Concluded that introduction of high deductible plans would lead to premium death spirals and crowd out comprehensive coverage
- Zabinski, Selden, Moeller, Banthin, *Journal Health Economics* 1999

MEPS-IC: Data

- Large sample of establishments (n=42,700 with response rate of 81%)
- Compared to Kaiser/HRET survey of 4,000 firms with response rate of 50%
  - Leading data source employer offers, take-up, employer/employee premiums
  - State level estimates
  - Data released in tabular form
  - Limited public access to data files at Census Data Centers
  - Most models use MEPS-IC estimates to benchmark premiums in simulation models based on other data (e.g., Kaiser/HRET)

MEPS-IC: Augmented Data and Microsimulation

- Selden & Gray (*HA*, 06) “populated” establishments with HC workers using statistical matching and raking post-stratification
  - Enabled estimates of tax subsidy by estab characteristics
- Under new initiative under review at Census, we will gain access to MEPS-IC data to recreate this data resource
  - Tax subsidy estimates
  - Estimates of premiums facing workers who do not take up offered coverage
  - Microsimulation of reforms
  - Responses to capped subsidies