

#### Comprehensive Assessment of Reform Efforts (COMPARE)



RAND HEALTH Testimony before the National Committee on Vital and Health Statistics February 27, 2009 Elizabeth McGlynn & Federico Girosi







## **Outline of Testimony**

- Overview of RAND COMPARE microsimulation model
  - Purpose
  - Design
  - Data currently used
  - Policy options modeled
  - Future directions
- Adequacy of data required for model
  - Data sets we are using (strengths, limitations)
  - Data sets we identified but could not use
  - Data sets we wish existed
- Priorities for Federal Data









#### **COMPARE Goals**

- Provide the factual foundation for a national dialogue about health reform options
- Facilitate the development of health reform policy options by public and private policy makers





## **COMPARE Evaluates Effects of Policy Changes on Multiple Dimensions**

Quality

**Reliability** Patient **Experience Health** 

Cost

**National Health Expenditures** Consumer **Financial Risk** Waste

> Other Operational **Feasibility**

Access Coverage Patient

**Experience** Capacity









#### **COMPARE Model is an Agent Based Microsimulation** With Endogenous Premiums and Insurance Status











### We Use A Variety of Data Sources

Source	Description of Data	
SIPP	Population demographics, SES, employment, health insurance, public programs participation	
MEPS-HC	Healthcare expenditures, health conditions, utilization	
HRET/Kaiser	Firm characteristics, employer health benefits	
TaxSim	Tax liability, marginal rates (Federal and State)	
SUSB	Firm distribution (size, industry sector, region)	
Census	Demographic projections	
CMS	National Health Expenditure Accounts	
Literature	Model parameters (e.g., some elasticities, crowd-out, health effects of uninsurance)	









#### Behavior of the Agents Modeled Using Different Methods

- Linear regressions (individuals and health insurance eligibility units)
- Utility maximization (individuals and health insurance eligibility units)
- Cost/Benefit analysis (firms)







#### **Scope of the Model**

- Model results are intended to apply in the near future
- Employment variables are static:
  - economic downturns can be modeled by starting from a status quo that reflects current conditions, if timely data are available
  - people do not switch jobs or are laid off in the course of the simulation
- Analysis is performed at national level:
  - state level analysis can be performed by re-weighting current data to resemble state of interest
  - state level analysis requires additional state-specific data







### **Policy Options Modeled To Date**

- Individual mandate with national insurance exchange and subsidies
- Employer mandate
- Medicaid/SCHIP Expansion
- Refundable tax credit
- Medicare buy-in
- Baucus proposed combination of coverage options







#### We Are Currently Developing a Provider Module

- Focus will be on behavioral responses of physicians and hospitals to changes in:
  - Payment policies
  - Health service delivery interventions (public reporting, disease management, medical home)
- Initially module will operate independently
- Over time, it will interact with main COMPARE model







## **COMPARE is Committed to Advancing Policy Analysis Through Transparency**

- Results are available publicly on a website: <u>www.randcompare.org</u>
- White paper describes the COMPARE microsimulation methodology
- Users can interact with modeling results to see impact of changes in parameters or assumptions on results







#### Strengths & Limitations of Data Sets We Are Using

Data Set	Strengths	Limitations
SIPP	Longitudinal. Detailed income and public program participation.	Not timely; not conducted often (last in 2004). No premium or reliable utilization information.
MEPS-HC	Longitudinal. Unique: extensive health expenditures/utilization/ health information.	Smaller than SIPP, CPS. No unrestricted access to state codes.
Kaiser/ HRET	Timely, easy to access/use. Detailed information on health benefits.	Small size. Limited, aggregate information on employees.





## **Data Sets We Had Difficulties With (1)**

- MEPS HC-IC: restricted access. Information on benefits offered by employers.
  - Used for modeling the choices made by employees
  - Small size, noisy data, not nationally representative: we settled for simpler analysis than anticipated, not taking full advantage of benefits information
  - Timely access through AHRQ, but still inconvenient because you have to use at AHRQ
  - Cannot be imported directly in the simulation, can only export regression coefficients
  - Programmers complained of small screens and outdated computers







# Data Sets We Had Difficulties With (2)

- MEPS IC: restricted access. Survey of private and public sector employers, at establishment level. Data on health benefits, premium contributions and employer characteristics.
  - Large and unique data set (approx 40,000 units)
  - Long time to get access to it (needs a proposal)
  - Cannot get approval to do analyses already being undertaken by another group
  - Predominant purpose of research project must be to benefit Census programs
  - Inconvenient access through the Census offices: cannot import data into simulation
  - We were unable to use it because of delays in access







### Data Sets We Wish Existed (1)

- A large (>10,000) cross-sectional population survey that assesses both the insurance choice and the choices offered at the level of health insurance eligibility units.
  - Goal: to model people's preferences. To be fielded every 5 years. It could include scenarios questions and/or vignettes.
- A long term longitudinal survey that follows people from age 0 to death (like the Health and Retirement Survey, but for the whole population). To be fielded yearly.
  - Goal: to model transitions in insurance/health/work/income/retirement status









# Data Sets We Wish Existed (2)

- A large, linked employee/employer data set that includes information about health insurance choice. Data set would include information about wages, SES, health insurance options (premium cost sharing, benefit packages), family structure, medical expenditures, firm characteristics.
  - Goal: model firm behavior
- A survey of people/insurance firms and the price they face/charge in the non-group market
  - Goal: both estimation and validation of models that predicts non-group insurance premiums









## Data Sets We Wish Existed (3)

- Physician longitudinal data set
  - Goal: able to model their behavioral responses to different types of incentives (e.g., changes in types of patients seen, referrals, admissions, practice setting, capital investments)
  - Panel survey/data acquisition to be fielded bi-annually
  - Ability to link to other data sets (e.g., Medicare claims, EMR)







#### **Priorities for Federal Data**

- Easy access to data sets that already exist and better documentation would enhance utility for modeling
- Timely availability of data (no older than 2 years)
- Developing new data sets that improve ability to evaluate options beyond coverage expansions

