



AMERICAN ACADEMY *of* ACTUARIES

Objective. Independent. Effective.™

A Discussion on International Risk Adjustment

John Bertko, MAAA, FSA

Covered CA

John Hsu, MD, MBA, MSCE

Harvard Medical School

January 27, 2016

Webinar

Presenters and Moderator

- Presenter: John Bertko, MAAA, FSA
Covered California
- Presenter: John Hsu, MD, MBA, MSCE
Harvard Medical School
- Moderator: April Choi, MAAA, FSA
International Actuarial Association Health Section





AMERICAN ACADEMY *of* ACTUARIES

Objective. Independent. Effective.™

Learning from Europe: Risk Adjustment Network Conference

John Bertko, MAAA, FSA

What is the RAN Conference?

- The Risk Adjustment Network (RAN) consists of representatives from several European countries (+Israel) that use risk adjustment
 - The Netherlands, Germany, Switzerland, Ireland, Israel, and Belgium
 - Attendees are academics, regulators, and industry
 - Guests (e.g., U.S. attendees)
- 2015 was the 15th annual meeting



Country Updates + Research

- Country updates from all the attendees
- Academics present research on a variety of risk adjustment/risk equalization schemes
- Many research papers



U.S. Context

- Before discussing country updates, the U.S. has:
 - Medicare Advantage risk adjustment for seniors > 65
 - Pre-2000, only demographic adjustors
 - 2000 Prospective PIP-DCGs (adding I/P diagnosis info)
 - 2004 Prospective CMS/DCGs, using ambulatory encounter data
 - Medicare Part D
 - Using medical encounter data to provide prospective risk adjustment
 - ACA starting in 2014 for enrollees < 65
 - Uses HHS/HCCs with ambulatory and inpatient data
 - Concurrent risk adjustor, since prior data was not available in 2014
 - Uses a “distributed data” approach to assessing diagnostic data

European Context

- Only some countries have mandatory health insurance in a competitive market with need for risk adjustment
 - Netherlands, Germany, Switzerland
 - Ireland has competition, but insurance is not mandatory
 - Israel has four competing national Sickness Funds
 - Belgium now has only one insurer per region
- Long experience with risk adjustment – from early 1990s
- One major difference is that ALL ages are covered – from birth to death
 - Not any separate program for seniors, like the U.S.



Switzerland

- Decrease to 58 insurers in 26 cantons (from 100 in 1996)
- Age/gender + I/P hospitalization indicator (Yes/No)
- In 2019, will add Prescription Drug Groups (PCGs)
 - This will include Daily Drug Dosage minimums
 - Discussion with MDs regarding unambiguous use/diagnosis
- Have up to 1900 CHF for plan deductible (about US\$2000) with choice of deductibles

Netherlands

- Started in 1992 with age/gender
- Now:
 - Age/gender/DCGs/PCGs for “somatic” (medical) expenses
 - Home health care model
 - Mental health model
 - Mandatory deductible/OOP model
- 84% have Supplemental Insurance (down from 89% in 2011)
- Choice of deductible, up to 885 €; average is 385 € in 2016
- Now down to nine insurer groups (from 11 in 2010)

Germany

- Uses DCGs, plus some PCGs and demographics
 - Also needs an income-related adjuster since Sickness Fund (SF) contribution is a percentage of income
 - In 2014, 15.5% of income was sufficient to have zero extra premiums
 - For 2015, lowered to 14.6% of income and created income-adjusted premiums for enrollees
 - Separate LTC program with risk adjusters, using same SFs to provide this care
 - Separate risk adjuster



Israel

- Four national Sickness Funds (SFs)
 - Have one dominant and three smaller funds
 - Do not pay for mental health or maternity care
 - 80% of enrollees have Supplemental Insurance
 - Only age/gender adjusters, since law prohibits any risk adjuster not linked to age
 - Ex post payment for five high cost illnesses



Ireland

- Four insurers in the market (54%, 25%, 16% and 5% of market)
- Voluntary market (unlike other EU countries)
 - With better economy, up to 45% of consumers are insured, up from about 40%
- Modified community rating with a discount for the 19-35 group



Belgium

- Moving towards no need for risk adjustment
- Sickness Funds are regional and do not compete in a region
- Freedom of choice of providers by consumers
- Low cost (as % of GDP) and highest satisfaction in the EU



Developments Discussed

- Addition of PCGs in Switzerland in 2019
- Reinsurance might be used for high-cost expenses or illnesses
 - Germany had this until 2007 and was removed; now being re-considered
- “Restrained Regression” as a tool to increase payments (and predictive ratios) for conditions without a risk adjustment “flag”
- Swiss have new SORA software which allows exactly two staff at the regulatory agency to do annual risk adjustment process!





AMERICAN ACADEMY *of* ACTUARIES

Objective. Independent. Effective.™

Coverage Expansion, Risk Adjustment, and the ACA

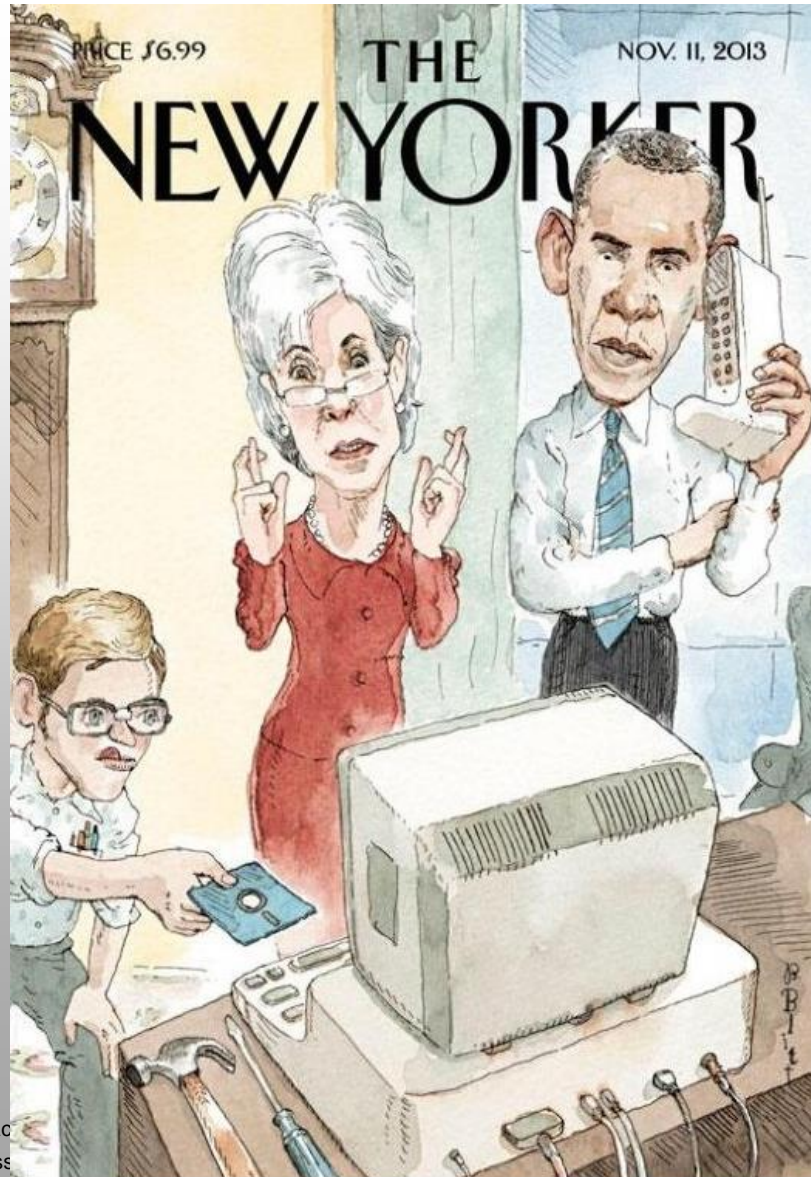
John Hsu, MD, MBA, MSCE

Coverage Expansion

- Opportunity to extend coverage to millions of individuals in the United States who lack regular health insurance
- A major component of the Patient Protection and Affordable Care Act (ACA) – focus state-level health insurance exchanges, in which individuals may purchase insurance
- Balancing act – affordable health insurance and medical care



A quick summary of recent events...



A few implementation glitches...



But ultimately, good news: millions of Americans now with health insurance

INTERNATIONAL BUSINESS TIMES

THURSDAY, OCTOBER 01, 2015 AS OF 4:41 PM EDT

Home

Politics ▾

Economy ▾

Markets / Finance ▾

Companies ▾

Technology ▾

Media

POLITICS

Obamacare Enrollment: Almost 9 Out of 10 Americans Now Have Health Insurance, Poll Finds

By Elizabeth Whitman [@elizabethwhitty](#) [e.whitman@ibtimes.com](#) on April 13 2015 8:57 AM EDT

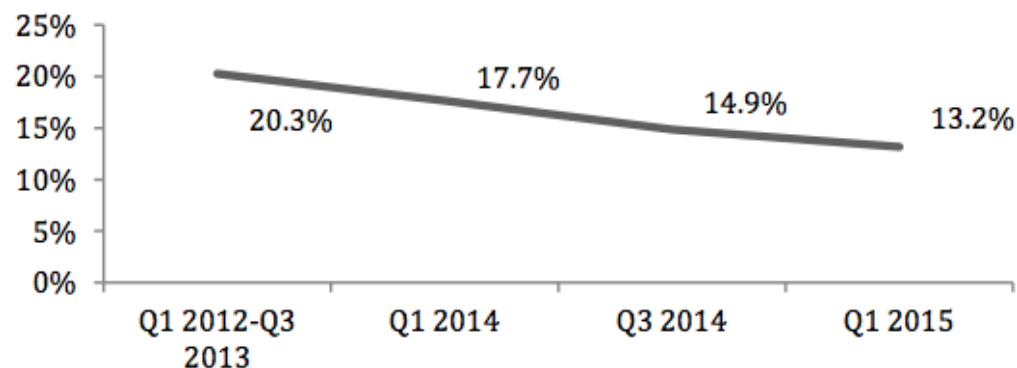


An estimated 14.1 million adults gained insurance between October 2013 and March 2015

Since several of the Affordable Care Act's coverage provisions took effect, about 16.4 million uninsured people have gained health insurance coverage. That includes:

- 14.1 million adults who gained health insurance coverage since the beginning of open enrollment in October, 2013 (including 3.4 million young adults aged 19-25) through March 4, 2015. Over that period, the uninsured rate dropped from 20.3 percent to 13.2 percent – a 35 percent (or 7.1 percentage point) reduction in the uninsured rate.
- 2.3 million young adults (aged 19-25) who gained health insurance coverage between 2010 and the start of open enrollment in October, 2013 due to the ACA provision allowing young adults to remain on a parent's plan until age 26.

**Quarterly estimates of the Uninsured Rate
Gallup-Healthways Well-Being Index, 2012-2015**



	Q1 2014	Q3 2014	Q1 2015
Number gained coverage since baseline (Q1 2012-Q3 2013)	5,200,000	10,700,000	14,100,000

Source: Office of the Assistant Secretary for Planning and Evaluation (ASPE) analysis of Gallup-Healthways Well-Being Index survey data through 3/4/15. All models update the analysis from Sommers et al, *N Eng J Med* 2014. All models use nationally-representative survey weights and adjust for age, sex, race, ethnicity, employment, household income, state of residence, +/- a linear time trend.

<http://aspe.hhs.gov/pdf-document/health-insurance-coverage-and-affordable-care-act>

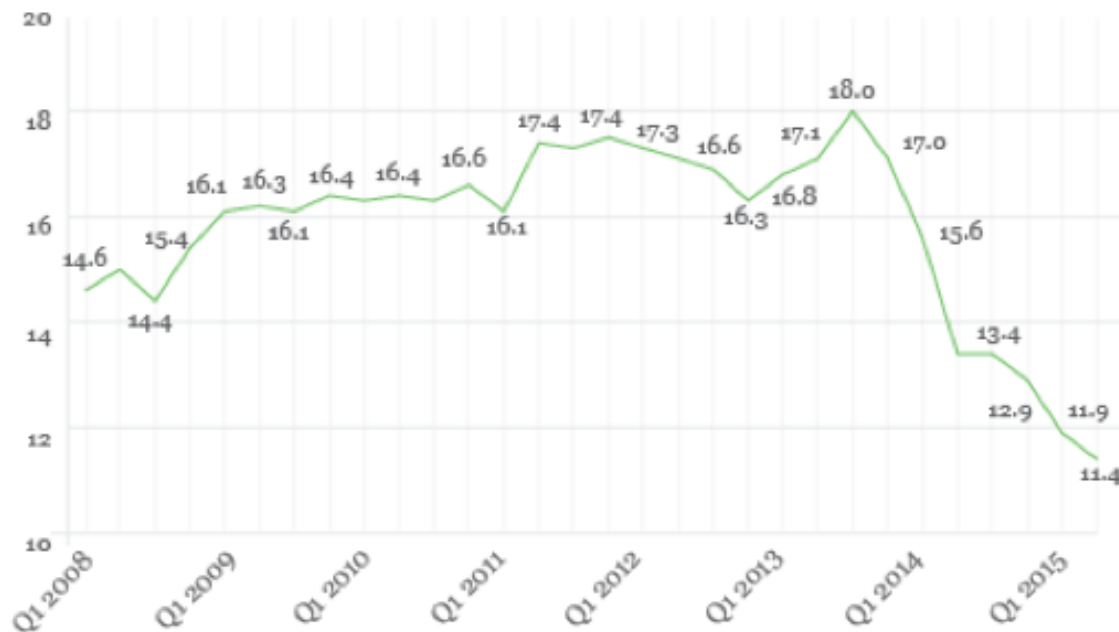
Drops in the percentage of uninsured

Percentage Uninsured in the U.S., by Quarter

Do you have health insurance coverage?

Among adults aged 18 and older

■ % Uninsured



Quarter 1 2008-Quarter 2 2015

Gallup-Healthways Well-Being Index

GALLUP

Declare victory and go home?



Background

- Many individuals uninsured in the U.S. (pre-ACA)
- ACA expands coverage for many of these individuals
 - Coverage expansion
 - Medicaid expansion
 - Mandates
 - Subsidies
- Exchanges offer multiple plan options
 - States vary in the details of the exchange structure
 - Several states have defaulted to a federally run exchange
- Fundamental concerns about the degree of selection and the ability of the current approach for addressing selection (i.e., the premium stabilization program)
- Uncertainty about who enrolls and which plans will they choose



Background

(Details about the ACA and adverse selection)

- Premium Stabilization Programs (avoid premium death spirals), in order:
 1. Risk adjusted premiums
 2. **Transitional reinsurance program** (2014-16)
 - Dollars from insurance fees (insurers and self-funded groups)
 - California carriers receive \$1.2B in 2014 reinsurance payments
 3. **Transitional risk corridors** (2014-16) – dollars from U.S. Treasury
- Risk Adjustment Details
 - Concurrent model: age, gender, 2014 diagnoses, cost-sharing indicator, geographic rating area indicator
 - Calibration: large group and plan dataset (MarketScan)
 - Equalization: risk adjusted payment transfers in mid-2015 (6-month lag)
 - Validity: no audits until 2016 (Risk Adjustment Data Validation or RADV program delayed)

Risk Adjustment – ACA Permutation

- Goal: To **share risk** across health insurance plans and **allocate premium dollars** across a population
- **Zero-sum ACA game:**
 - Increases in any plan's score increases plan payments, but decreases payments for other plans (differs from that of MA and Part D)
 - Transfers in 2014 equaled \$579M
 - Largest payment was \$182M; largest amount received was \$135M
- **Concurrent risk scores:** concurrent risk scores reflect care received during the year.
 - Concurrent scores are more **susceptible to gaming** than prospective scores (but latter not possible in year one)
 - All diagnosis-based scores conflates **selection effects** and **plan effects** (no measurements of quality at present that could help counterbalance access restrictions)



Adverse Selection Concerns: Death Spirals

- Addressing selection is a consistent challenge in health reform efforts
 - Particularly important under guaranteed issue + “community rating” regulatory systems
- Example death spiral:
 - California small business purchasing exchange
 - Discontinued in 2006 due to unsupportable premium increases
- Potential consequences of residual adverse selection (after risk adjustment) in the exchanges in 2015:
 - Insurers withdraw from participation, remaining insurers increase rates
 - Insurers erode plan generosity in ways that might not affect the actuarial value calculations (e.g., narrow provider networks, utilization management)



Worst Case Scenarios

(Insurers believe that they do not have the potential of earning a profit)

- Withdraw from states
- Withdraw from markets within states
- Increase premium rates (but this affects enrollment/selection)
- Erode plan generosity, e.g., drop specialists from the network or specialty drugs from the formulary (might not affect the actuarial value)
- Skimp on care, e.g., decrease the per capital number of primary care physicians in the network, or increase the utilization management programs for procedures, drugs, devices, etc. (might not affect the actuarial value)



Covered California (Bellwether Exchange)

- Large, well-developed and regulated exchange with quasi-governmental structure
- Plans required to offer standardized plans at all five actuarial value levels and offer identical plans inside and outside of the exchange (simplified version)
- Exchange reviews plan qualifications (e.g., affordability and quality)
- Concentrated market with four major carriers that dominated the pre- and post-ACA individual insurance market



Covered California

(Highly regulated, but still potential problems)

- Insurers must participate at all levels of the exchange
- Participation both on and off of the exchange
- Exchange selectively contracts with some qualified health plans (active purchaser model – one extreme among state approaches – other extreme allows all plans to participate or the clearinghouse model)
- The exchange board must adhere to conflict of interest rules – board members can not have relationships with any insurers, providers, or third-party administrators (CA, MD, CT)

But...

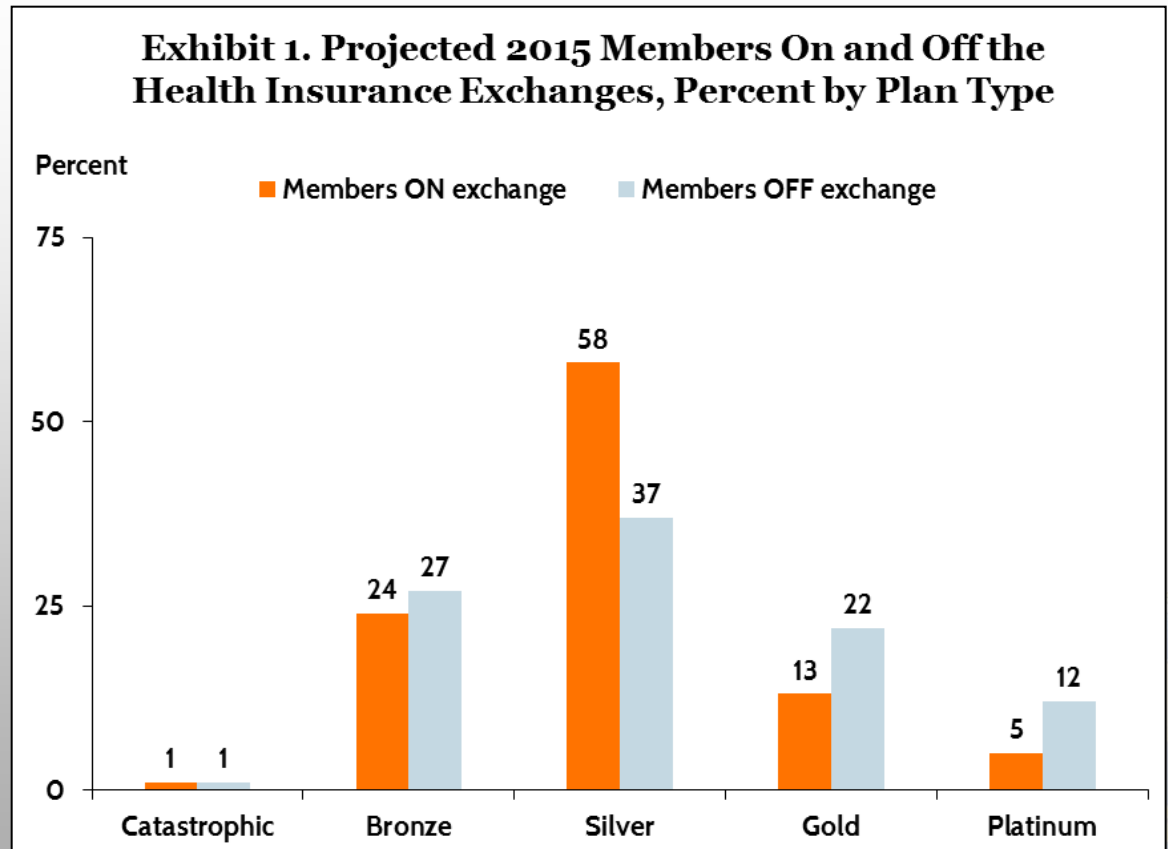
- There is no reporting of quality to date
- The exchange has allowed considerable variation in network composition
- The state historically has had divided state regulators – California Department of Insurance (CDI) vs. Department of Managed Health Care (DMHC)



Early report (McCue and Hall) suggests that there is no adverse selection in the health insurance exchange

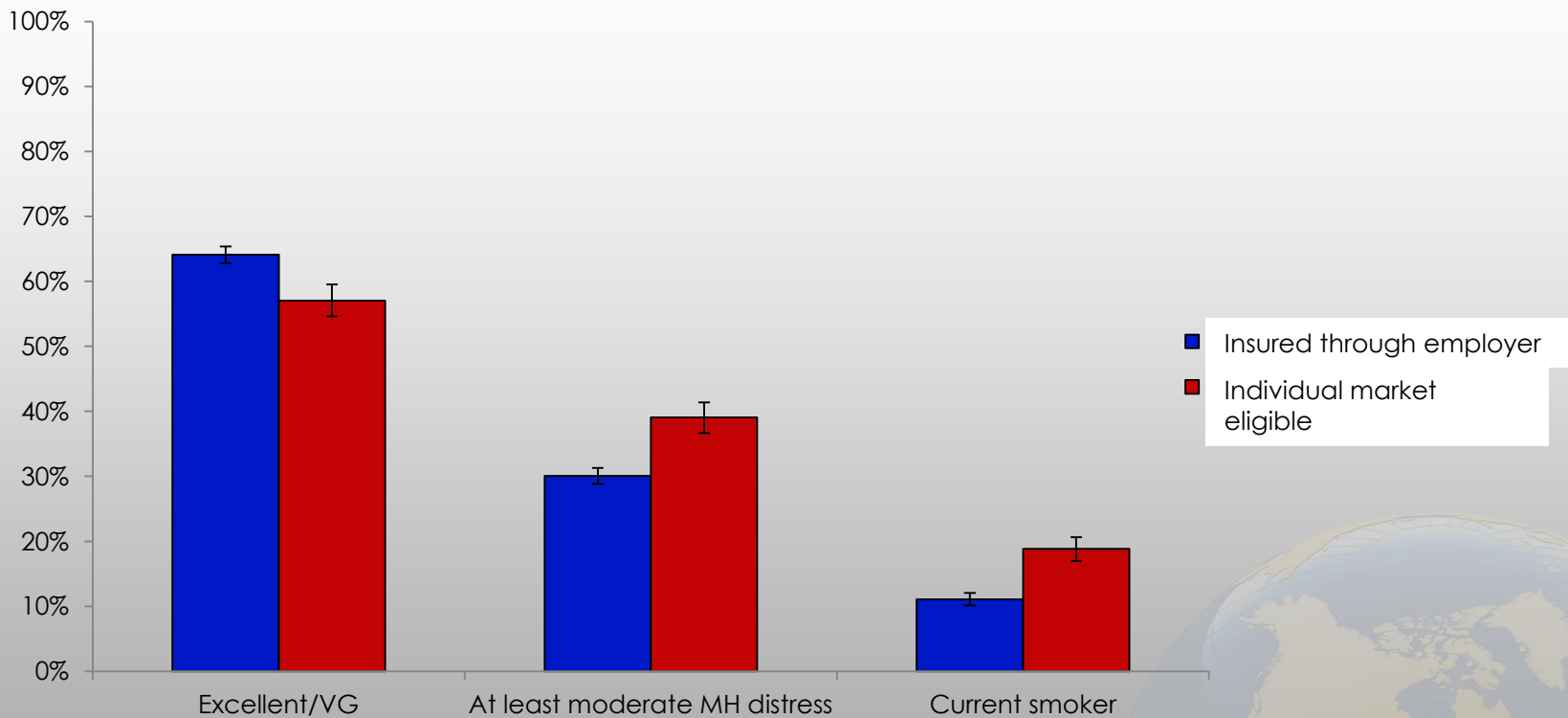
Logic:

- No evidence that off-exchange markets disproportionately offer low-coverage or catastrophic plans, targeting healthier enrollees. Rather, off-exchange markets tend to offer *more generous*, broader-network plans.
- No evidence that off-exchange enrollees have lower risk profiles. (No differences, for example, in measures of age or self-reported health.) – interpretation of a KFF report.



Source: M. J. McCue and M. A. Hall, *Comparing Individual Health Coverage On and Off the Affordable Care Act's Insurance Exchanges*, The Commonwealth Fund, August 2015.

Background: CA citizens eligible for the exchange are sicker than those with group health insurance



Source: 2012 California Health Interview Survey (CHIS) data

Promising amount of participation in 2014

	% of Eligible Population
Potential of Potential State Exchange Enrollees	100%
Estimated Percentage Who Selected a Plan through the Exchange 10/1/13-3/31/14	42%
Estimated Percentage Who Selected a Plan through the Exchange AND Who Paid Their First Month's Premium	34%
Estimated Percentage Who Selected and Paid for a Plan Off the Exchange	10%
Estimated Percentage with Individual Market Insurance in 2014	44%

Sources: Covered California estimates of plan selection and premium payments; CHS estimates of US citizens potentially eligible for the post-expansion individual market; and authors' survey estimates of post-expansion plans sold off of the exchange.



Summary of Project

- Who is participating in the post-ACA individual insurance market?
- How is actual risk pool distributed across plans within the market?
- How well are enrollees choosing plans?
- How well does the risk adjustment scheme function?
- What happens when the transitory components of the Premium Stabilization Program end?



Questions?

