Reducing Young Invincibles’ Total Health Care Spending through The ACA Expansion of Dependent Coverage

Jie Chen, PhD
University of Maryland, College Park
Arturo Vargas-Bustamante, PhD
UCLA
Priscilla Novak, MPH
University of Maryland, College Park

Presenter Disclosures

No relationships to disclose

Young Invincibles

- Before the implementation of the ACA, approximately 30 percent of young adults were uninsured.

Background

- The Affordable Care Act (ACA) extended eligibility for dependent coverage under private family health insurance up to age 26.
- Recent estimates show that this provision has reduced the number of uninsured young adults by at least 3 million individuals.

Health care expenditures among young adults

- Young adults’ health spending patterns will impact the aggregate U.S. health spending in the long term.
- Lack of health care access and health insurance may result in delaying or forgoing necessary treatment, potentially leading to health problems and higher health expenditures in mid-adulthood.

Distributions of health care expenditures

- The ACA provision is positively associated with the lower end of the health expenditures distribution, and negatively associated with the higher end of this distribution.
To estimate health care expenditure trends among young adults ages 19-25 before and after the 2010 implementation of the ACA extended eligibility for dependent private health insurance coverage.

**Study Design**
- Difference-in-differences model
  - young adults ages 19-25 (the treatment group) and ages 27-29 (the control group).
  - pre- (2008-2009) to post- (2011-2012) implementation periods
  - Quantile regression was used to capture different associations between the ACA expansion and health care expenditures.

**Data**
- 2008 to 2012 Medical Expenditure Panel Survey
  - 7,613 young adults ages 19-25 years old
  - 3,516 young adults ages 27-29 years old

**Annual health care expenditures per person**
- Total health care spending (2012 Consumer Price Index Medical Component)
- Spending on specific types of health care services: physician visits, prescription drugs, inpatient visits, and ED visits.
- Expenditures by payors: out-of-pocket (OOP) payments, private health insurance, Medicaid, and other sources.

**Model Specifications**
Health care expenditures = \( \beta_0 + \beta_1 \text{(Age 19-25)} + \beta_2 \text{(Years 2011-2012)} + \beta_3 \text{(covariates)} + \epsilon \)
- Andersen social behavioral model
  - the predisposing factors (race/ethnicity, gender, marital status, US-born vs. foreign-born, and interview language)
  - enabling factors (education, family income, urban/rural, and U.S. Census Region)
  - clinical needs factors (self-reported physical and mental health, SF12- physical component summary, and mental component summary).

**Method**
- A generalized linear model with log link and gamma distribution (GLM)
- Propensity score matching to adjust for sample selection bias due to observable differences between the treatment and control groups.
- Sensitivity analyses
Method

- Difference-in-differences
- Quantile regression model
  - The coefficient at the lower percentiles of the expenditures (e.g., the 10th, 25th, and 50th percentiles): the association between the ACA expansion and health expenditures on primary or routine health care.
  - The coefficient at the higher percentiles of health expenditures (e.g., the 75th, 90th, and 95th percentiles): the association between the ACA expansion and the use of more intense and costly health care services.

Parallel trends

Figure 1: Trends of total health care expenditures for young adults ages 19-25 and ages 17-29 years old from 2003-2012

Health Care Expenditures by Payors

Health Care Expenditures by Services

Total Health Care Expenditures by Payors

Health Care Expenditures by Services
Findings and Implications

- The treatment group had 10% lower overall health care expenditures and 21% lower out-of-pocket payment compared to the control group in 2011-2012.
  - The overall reduction was more significant at the higher end of the health care expenditure distribution.
  - Results also show the increased spending on physician visits and prescription drugs and the reduction on inpatient visit costs of the treatment group in 2011-2012.

Findings and Implications

- Results suggest that the ACA expansion of dependents' coverage might have contributed to the controlled growth of health care expenditures among adults ages 19-25.
  - Fewer OOP health expenditures and increased financial protection of newly insured populations.
  - the decline in catastrophic expenditures

Findings and Implications

- Our analyses from a payor perspective did not show significant differences of private health insurers' cost.
  - mainly associated with a shift in reported OOP cost
  - Results show that the Medicaid expenditures reduced more among the young adults age 19-25 years old, though this reduction did not reach statistical significance.
  - More years of observations may be needed to reflect the time lag.

Limitations

- Our results cannot infer the precise causality given the data availability.
- Our study does not examine long-term health outcomes.
- Our measures of payors are too broad to capture possible “cost-shifting” effect and make specific inferences given the heterogeneity in Medicaid and private insurance plan benefits.

Conclusions

- Extended coverage eligibility has increased financial protection for young adults.
- Our results suggested that enrollment into dependent's private health insurance might have successfully reduced spending by reducing catastrophic expenditures.

Thank you!

Jie Chen, Ph.D.
Assistant Professor
Department of Health Services and Administration
School of Public Health, University of Maryland
College Park, MD

Email: jichen@umd.edu