

The Effect of HIFA Medicaid Waivers on the Rate of Uninsurance

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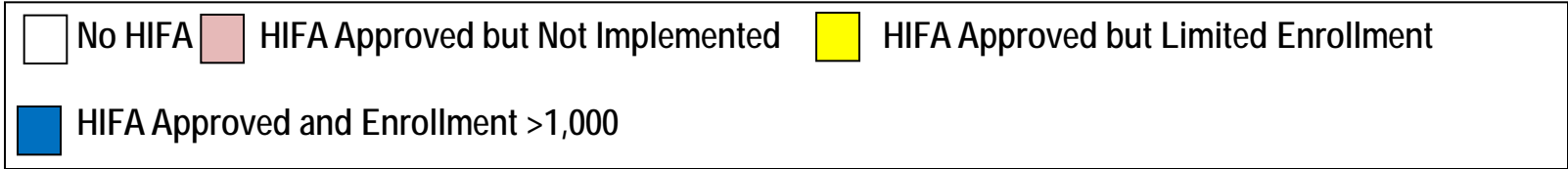
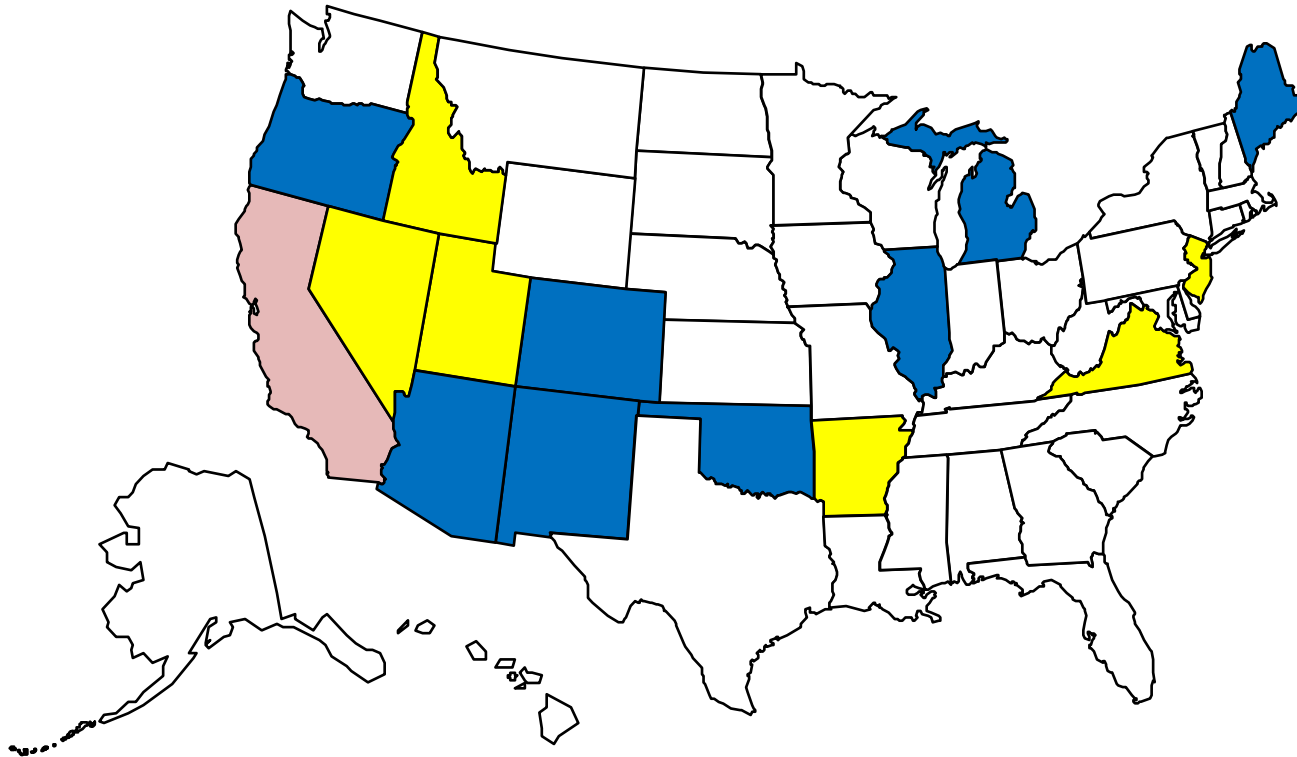
Purpose of the Evaluation

- **Objective:** To evaluate the effect of the Health Insurance Flexibility and Accountability (HIFA) demonstrations on the rate of uninsured.
- **Three major questions:**
 1. Is there a statistically significant relationship between implementing a HIFA demonstration and the number and rate of uninsured for health care in a state?
 - Do HIFA interventions “crowd-out” private insurance?
 2. Is this relationship the same across all HIFA states?
 3. Is this relationship the same for adults and children?

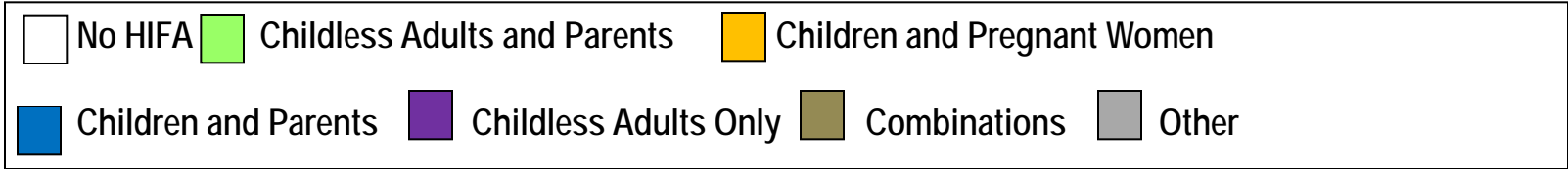
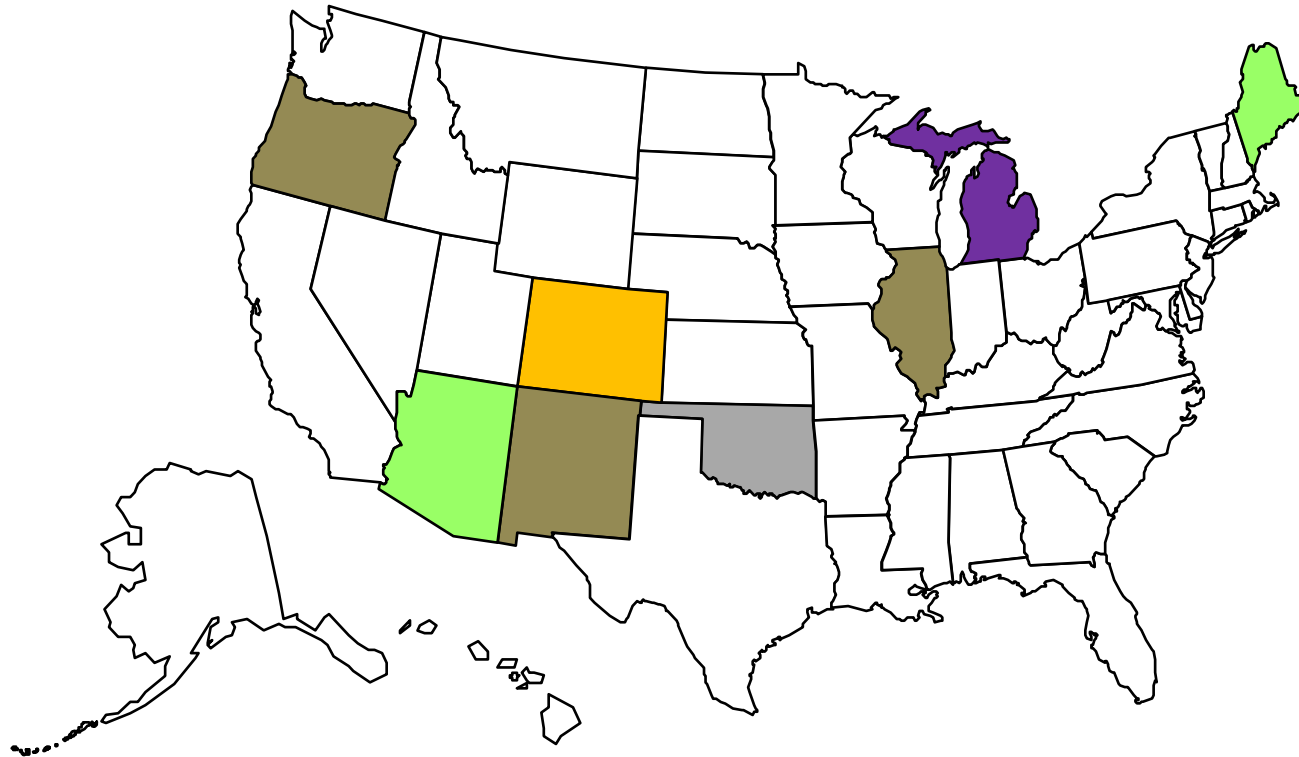
What is HIFA?

- Innovative §1115 waiver policy to encourage “new comprehensive state approaches”
- **Key to HIFA: give states flexibility**
 - Broad authority to design their SCHIP and Medicaid programs in ways not previously allowed:
 - E.g., limit program enrollment, modify benefit structures and increase beneficiary cost sharing.
 - Encouragement to use employer-sponsored health insurance (ESI)
 - Expedited waiver approval if they meet HIFA requirements
- **In return: states cover more people**

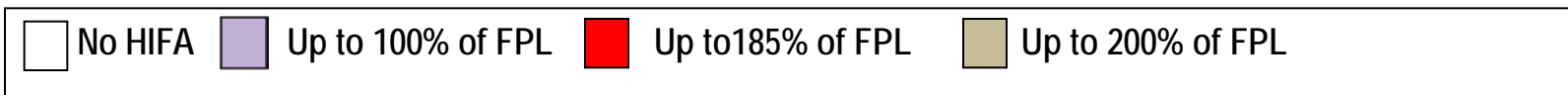
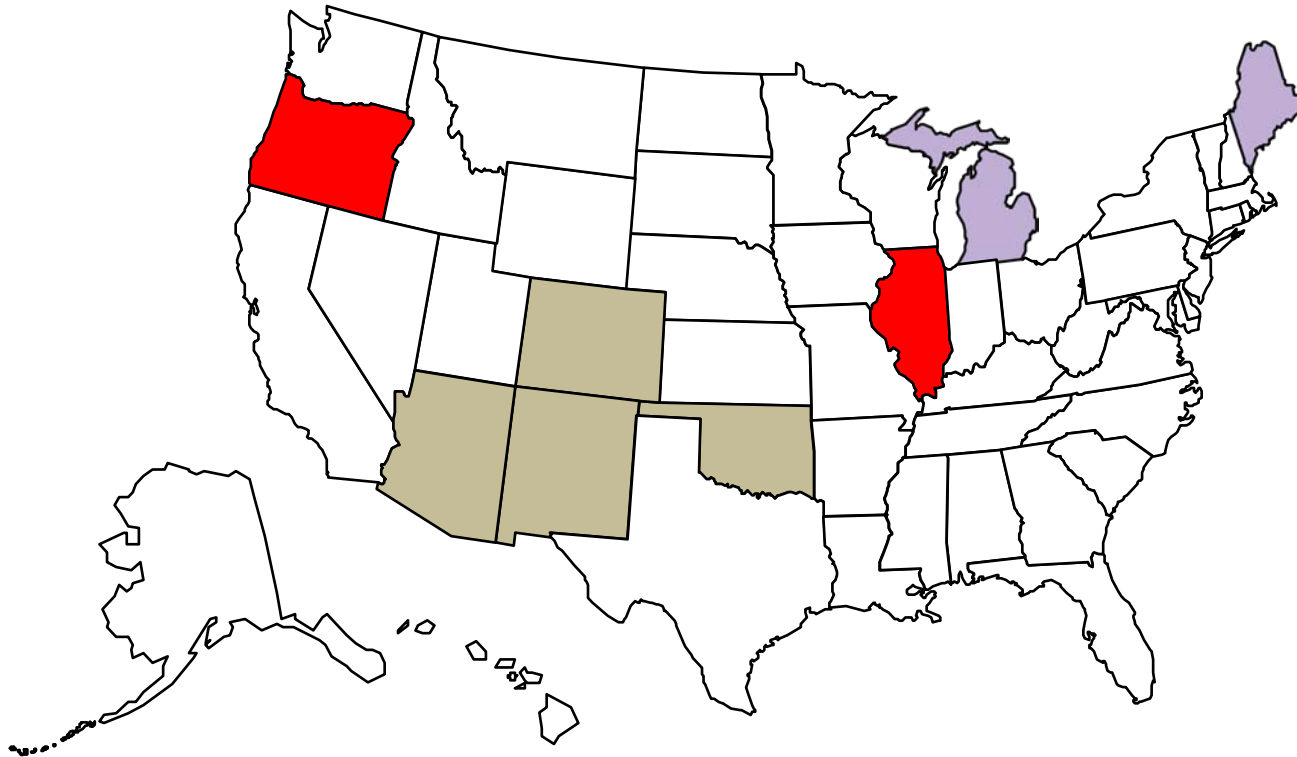
HIFA State Implementation



HIFA State Target Populations



HIFA Income Limits, By State



Defining the intervention

- **Formal definition – states with “HIFA 1115 waivers”**
 - **Complexities**
 - Not all approved waivers were implemented (CA)
 - Among those implemented
 - One program limits the number and type of individuals who can enroll (NJ)
 - Two programs specialized in ways we can’t identify in our datasets – e. g., pregnant mothers or disabled (CO and OK)
 - Five programs too small for us to estimate effects in national datasets – sample size too small (AK, ID, NV, UT, VA)
- **Our approach:** Approved AND implemented AND feasible to estimate effects from our datasets
- By this definition, 6 of 15 HIFA waiver states evaluated: **AZ, IL, ME, MI, NM, OR**

Research Design

The “target population” is defined by the HIFA eligibility rules in each state.

We observe people in the target population in years prior to, and after, the implementation of the HIFA program in each state.

We use the term “treatment group” to refer to the target population in the post-intervention period.

Control Groups

Four control groups:

Individuals residing in HIFA states who are:

1. Eligible for their state's program, but drawn from pre-implementation years.
2. Nearly eligible for their state's program and drawn from pre-implementation years.
3. Nearly eligible for their state's program and drawn from post-implementation years.

Individuals residing in non-HIFA states who are:

4. Less than 200 or 300 percent of FPL, but more than Medicaid eligibility level.

Challenges to the Research Design

Challenge 1: Are the control groups comparable?

- We test for homogeneity of control groups, and find that the results generally are robust to definition of the control groups.
- Models presented today use 300% of FPL to define control groups

Challenge 2: Quasi-panel data – multiple years pre- and post-intervention, but the same people are not observed over time.

- People could enter or leave the treatment or control groups, in addition to changing their insurance status
- No evidence of significant in-migration of HIFA-eligibles into HIFA states in the post-implementation period, after controlling for other variables in the analysis

Challenges to the Research Design

Challenge 3: Simultaneous programs funded by different sources.

- Could affect either the treatment group or the control group.
- Example: DirigoChoice in Maine
- We allow for time invariant state-specific random effects, but cannot control for all time-varying state-specific non-HIFA programs in all states.

Data: Current Population Survey (CPS)

- **Strengths**
 - Sample Size
 - Characterization of Insurance (Public, Private, None)
 - Excellent information on income and work-related variables
 - Data on entire family
- **Weaknesses**
 - Little information on health
 - Not true panel data
- Data from the March CPS from 2000 to 2007.

Two Dependent Variables

1. Insured versus uninsured

Method: Probit with random effects for states.

2. Type of insurance:

0 = uninsured

1 = public insurance

2 = private insurance

Method: Multinomial logit with fixed effects for states.

Basic model: Difference-in-Differences

$$\begin{aligned} P(\text{Insured}) = P_i = F(& X_i\beta + \\ & \text{HIFA} - \text{Eligible}\beta_{HE} + \\ & \text{Post} - \text{Intervention}\beta_{PI} + \\ & \text{HIFA} - \text{Eligible} \times \text{Post} - \text{Intervention}\beta_I) \end{aligned}$$

Control Groups

	Pre-implementation	Post-implementation
HIFA state residents who are or will become HIFA-eligible	Control Group 1	Treatment group
HIFA state residents who are nearly HIFA-eligible	Control Group 2 Either 200 percent or 300 percent FPL and not-Medicaid eligible in their state	Control Group 3 Defined as either 200 percent or 300 percent FPL and not-Medicaid eligible in their state
Non-HIFA state residents	Control Group 4 Defined as percent 300 percent FPL and not-Medicaid eligible in their state	

Explanatory Variables

Based on theory and a review of the literature:

- Individual-level demographic characteristics including age, race, sex, education, employment status, health, home stability, and characteristics of employment-based health insurance offers.
- Market area characteristics including the length of time the demonstration has been implemented in the state (=0 for control states); county unemployment rate; and county level employer characteristics.
- Model Slightly different for child models
- Data exclusions: the disabled, Medicaid eligible, Medicare eligible

Analysis Plan

- **Four different CPS Analyses**
 1. Adults, Effect on any insurance
 2. Adults, Effect on insurance type (public / private)
 3. Children
 - Direct Effect
 - Spillover from adult eligibility
 4. State specific effects

Adults, Effect on Any Insurance

- **Key Result:** HIFA program increased the probability of being insured by 6.39 percentage points ($p < .001$)
- HIFA eligible individuals were 10.3% less likely to be insured at baseline
- Other variables associated with higher insurance rates: higher income, born in US, older, female, more education, work for larger or unionized firm
- Other variables associated with lower insurance rates: moved in past 12 months, living in rental housing and multi-family dwellings, working 35 hours or more per week.
- Sample size: 431,394

Adults, Effect on type of insurance

- **Key Results: HIFA program:**
 - Reduces the probability of being uninsured by 2.62 percentage points ($p=.06$)
 - Increases the probability of being publicly insured by 3.9 percentage points ($p<.001$).
 - Had no statistically significant effect on the probability of being privately insured ($p=.423$)
- Other variables had expected signs
- Sample size: 431,394

Children, Effect on any insurance

- **HIFA has relatively limited income ranges where children are eligible for HIFA but not other public programs**
 - Illinois: 10,086 children enrolled
 - Oregon: 8,749 children enrolled
 - No other states (as of December 2006)
- **Two possible mechanisms for a “child effect”**
 - Direct
 - Spillover from parent’s eligibility

Children, Direct Effect on any insurance

- **Key Result:** HIFA program had no statistically significant effect on the probability of children being insured ($p=.37$)
- HIFA eligible children were 2.5% less likely to be insured at baseline ($p=0.04$)
- Other variables associated with higher insurance rates: higher income, born in US, on public assistance,
- Other variables associated with lower insurance rates: moved in past 12 months, living in rental housing and multi-family dwellings, older, Caucasian/white race, larger household
- Sample size: 130,063

Children, Spillover Effect on any insurance

- **Dependent variable:** Any health insurance
 - Includes public and private
- **Model:** Probit with controls for state level random effects
- **Include control for parent eligibility for HIFA**
 - Sample includes Medicaid, SCHIP eligible children
- **Key Result:** No statistically significant effect of parent eligibility on child insurance ($p=0.406$)

State Effects, Probit with Random Effects

States in order of effectiveness:

1. **Maine** (20.5 percentage points decrease in uninsurance rate)
2. **New Mexico** (8.7 percentage points)
3. **Arizona** (6.0 percentage points)
4. **Michigan** (6.0 percentage points)
5. **Oregon** (2.3 percentage points)
6. **Illinois** (not significant)

Conclusions

Results Summary, Children

- Only Illinois and Oregon have significant child enrollment
- None of the models suggest HIFA has increased the rate of insurance coverage for children
- No significant “spillover” effect from adult eligibility to child insurance coverage

Results Summary

State-Specific Effects

- Many States Did Not Enroll Significant Numbers of Individuals in the HIFA Program
- Program Effect Among Implementing States Highly Heterogeneous
 - **Maine** shows the strongest effect
 - **Illinois** is the least strong
 - **Other states** have similar effects to each other

Adults, Net HIFA Effect

- Baseline insurance rate in HIFA eligible population: 51.3%
- **Consistent finding that HIFA increases the percentage of the targeted population with health insurance**
 - Probit models: 5.7 – 9.4 percentage points
 - Multinomial logit models: 2.6 – 5.3 percentage points
- Estimated effect of HIFA among Adults:
 - Increased rate of insurance coverage by 11-18 *percent*
 - Increased rate of insurance coverage by 6–9 *percentage points*

Adults

- Limited evidence of crowding out of private insurance
 - Models do consistently show a negative effect on private insurance, but the negative effect is insignificant.
 - Only one specification even approaches statistical significance ($p=.07$)
 - Coefficients for the decrease in un-insurance < coefficients for the increase in public insurance
 - 2.6 percentage point *decrease* in un-insurance versus 3.9 percentage point *increase* in public insurance
- Between 105,849 and 174,558 adults gained health insurance due to HIFA
 - CMS reports that total HIFA enrollment in 2006 in the six states was 280,739