



NCCI's 2016 Annual Issues Symposium

The Affordable Care Act and Workers Compensation

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Outline of Topics

- The Affordable Care Act (ACA) and Medical Insurance Expansion
- The ACA and “Crowding Out”: Access to Primary Care
- The ACA and Wellness: Obesity and Medical Costs
- Conclusions



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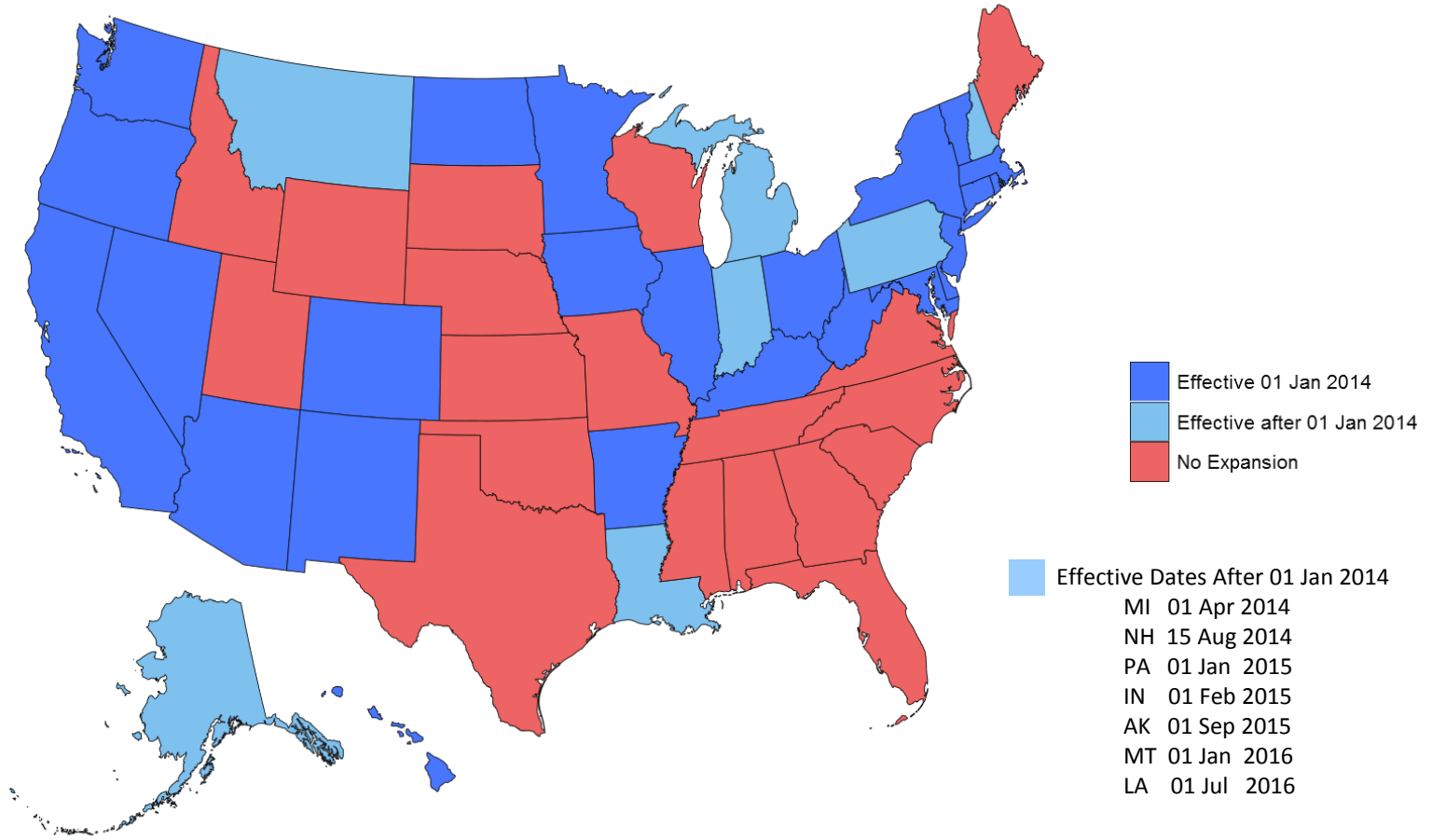
The ACA and Medical Insurance Expansion

New Insureds Under the ACA

- The ACA increased the medically insured population
 - Via the health insurance mandate in all states
 - Via Medicaid expansion in some states
 - Medicaid expansion, where it applies, creates a greater increase in the share of new medical insureds than the health insurance mandate
- ACA insurance exchanges and Medicaid expansion took effect in 2014
 - In 25 states including DC, Medicaid expansion took effect on January 1, 2014
 - Seven other states have expanded Medicaid since then
 - No state has rescinded its decision to expand Medicaid

Medicaid Expansion Decisions

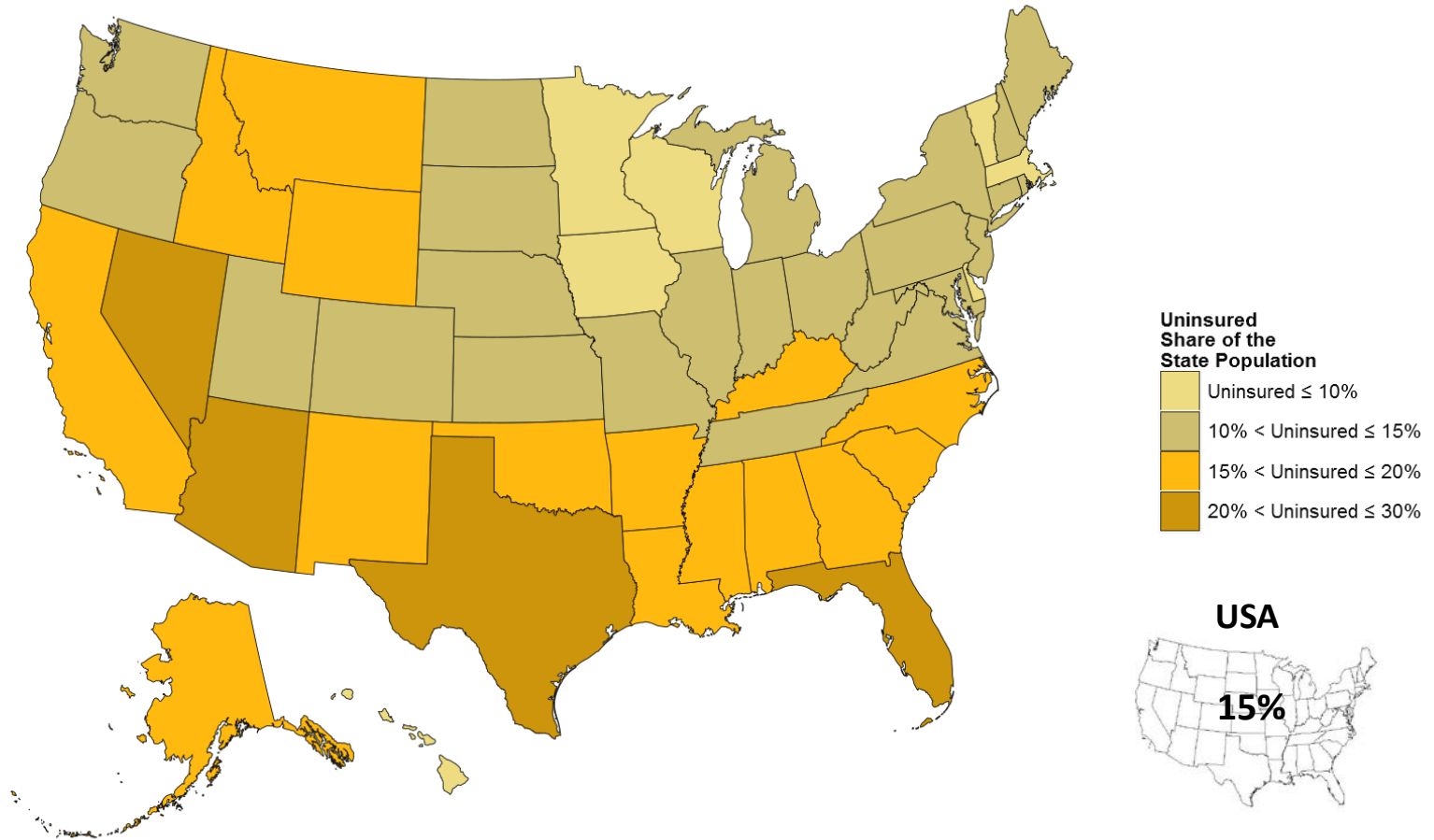
ACA-Blue and ACA-Red States



ACA-Blue: AK AR AZ CA CO CT DC DE HI IA IL IN KY LA MA MD MI MN MT ND NH NJ NM NV NY OH OR PA RI VT WA WV
 ACA-Red: AL FL GA ID KS ME MO MS NC NE OK SC SD TN TX UT VA WI WY

Source: Status of State Action on the Medicaid Expansion Decision, The Henry J. Kaiser Family Foundation, March 14, 2016

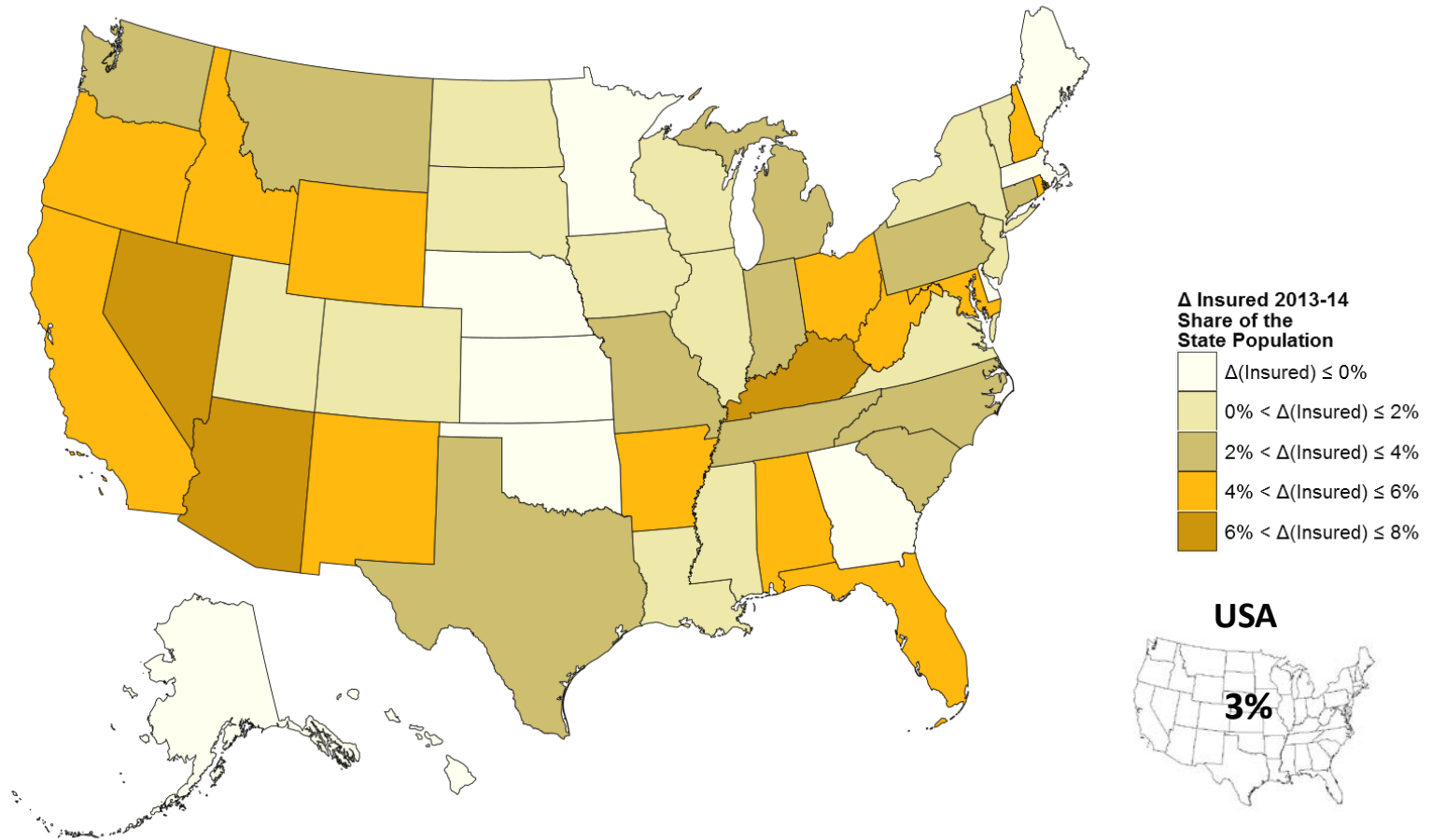
Medically Uninsured Nonelderly Pre-ACA 2013



- Medically uninsured nonelderly as a percentage of state nonelderly population
- Nonelderly includes persons 0–64 years of age

Source: The Kaiser Family Foundation's State Health Facts. Data Source: U.S. Census Bureau, Current Population Survey (CPS: Annual Social and Economic Supplements), March 2014

Increase in Medically Insured Nonelderly from 2013 to 2014



- Change in the medically insured nonelderly as a share of state nonelderly population

Source: The Kaiser Family Foundation's State Health Facts. Data from the U.S. Census Bureau, Current Population Survey (CPS: Annual Social and Economic Supplements) , March 2014 and March 2015



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The ACA and "Crowding Out": Access to Primary Care

Access to Medical Service

Medicaid Expansion and “Crowding Out”

- ACA increases the medically insured population
 - Particularly via Medicaid expansion
- Does medical service demand from new insureds under the ACA “crowd out” WC?
 - Access to primary care, in particular
- Some states expanded Medicaid, others did not
- A natural experiment:
 - 16 NCCI states expanded Medicaid as of January 1, 2014
 - 19 NCCI states did not expand Medicaid during 2014
 - Compare the experience of both groups for 2012–2014

Note: New Hampshire expanded Medicaid effective August 15, 2014, and is excluded from the natural experiment

Measuring Medical Service Utilization

- The amount of medical services provided is measured at the transaction or hospital inpatient episode level
 - Each service is assigned a value based on the 2013 Medicare fee schedule amount, not adjusted for payment locality
 - The 2013 Medicare fee schedule is a constant yardstick for valuing different types of medical services: it is the same in every year and in all states
- Transactions for the first 90 days from the accident date for each claim are counted
 - Average medical service intensity per claim is:
(Total 90-day medical services at Medicare values) / (Total Claims)
- We use accident years beginning October 3
 - As an example, 2014 AY includes claims with accident dates from October 3, 2013 through October 2, 2014
 - 2012 and 2013 AYs are defined similarly

Measuring Medical Service Utilization

Primary Care Services

- Primary Care services
 - Includes office visits, ER visits, x-rays, MRI's, testing
 - Excludes surgery, physical medicine, drugs, supplies
- In any state, Primary Care intensity may vary from year to year for several reasons including:
 - Adoption of new treatment protocols
 - Revised fee schedules
 - Network penetration
 - Injury mix

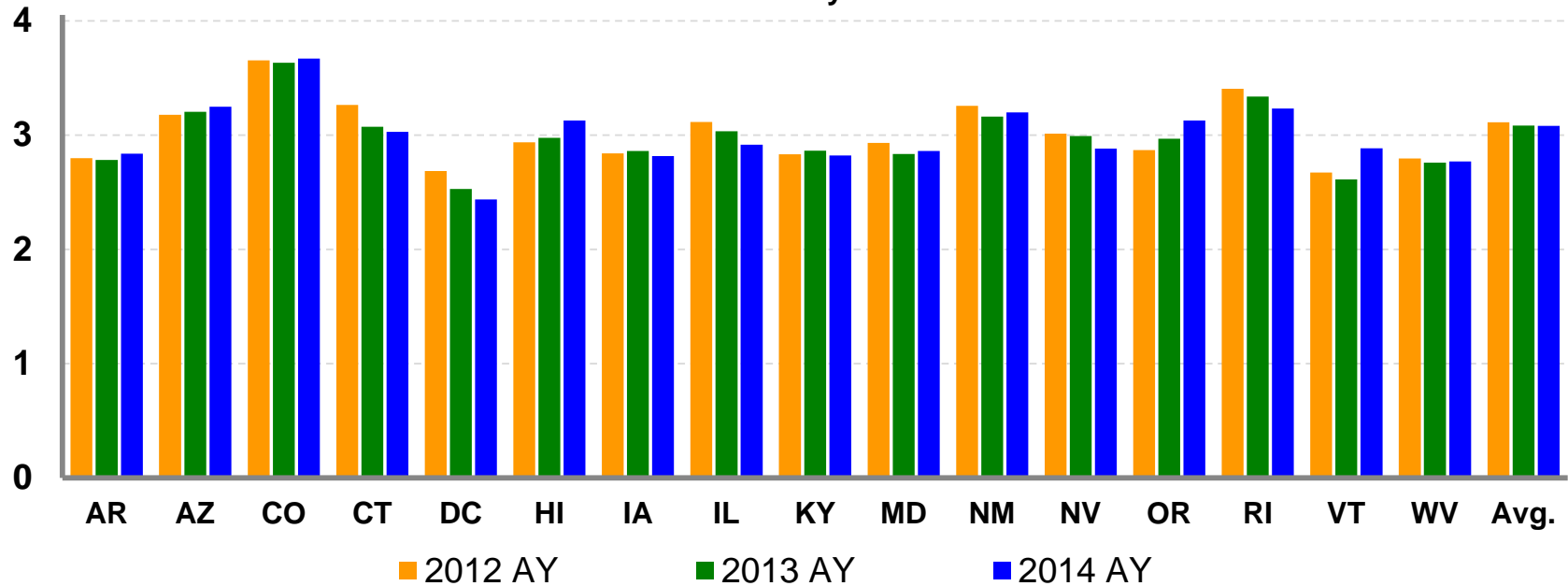
Variation in Primary Care Service Intensity

- The analysis here separates states into two groups:
 - Medicaid expanders effective as of January 1, 2014
 - Medicaid non-expanders during all of 2014
- We assume that 2014 Medicaid expansion is independent of other factors affecting Primary Care intensity
 - Variation in Primary Care intensity exists within each group, but is assumed to be independent between groups

A Natural Experiment

NCCI States With Medicaid Expansion Effective January 1, 2014

Primary Care Services per Claim
First 90 Days



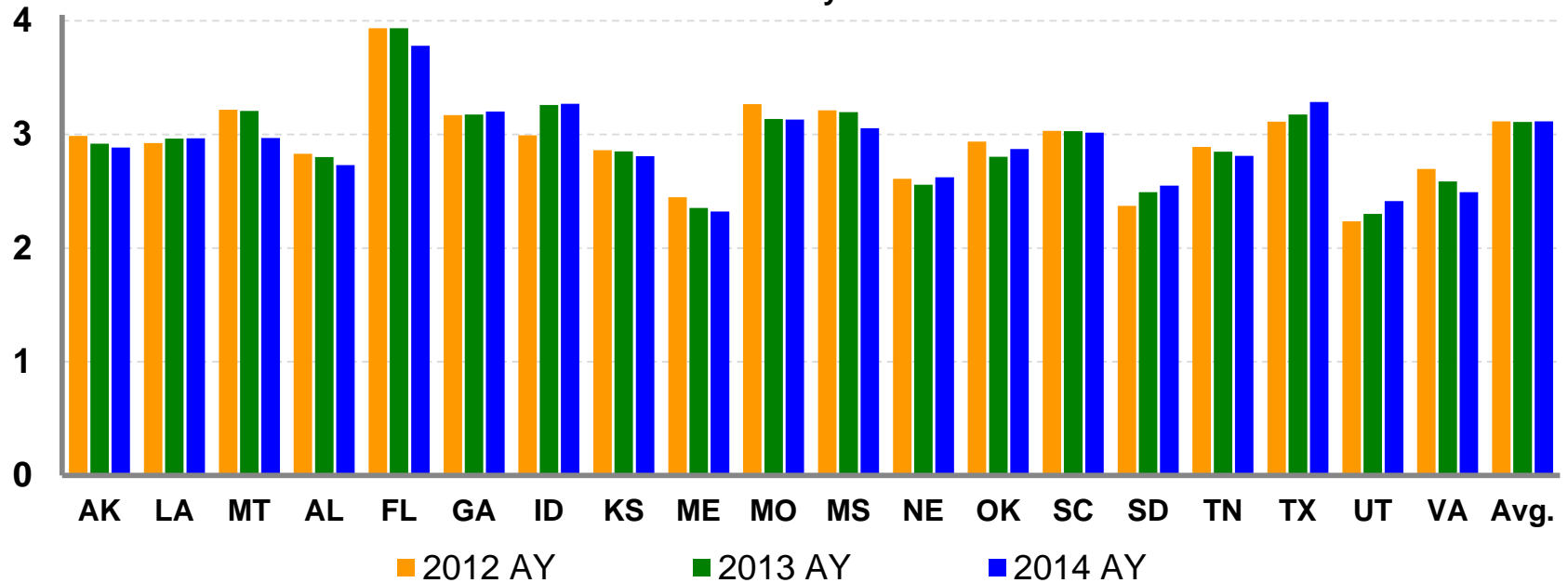
- Distribution of Primary Care intensity for states that expanded Medicaid is similar in all years
 - Group mean is static for 2012, 2013, 2014: **3.1** PC Svc / Claim
 - Group standard deviation is static for 2012, 2013, 2014: **0.3** PC Svc /Claim

Source: NCCI Medical Data Call

A Natural Experiment

NCCI States With No Medicaid Expansion Effective 2014

Primary Care Services per Claim
First 90 Days



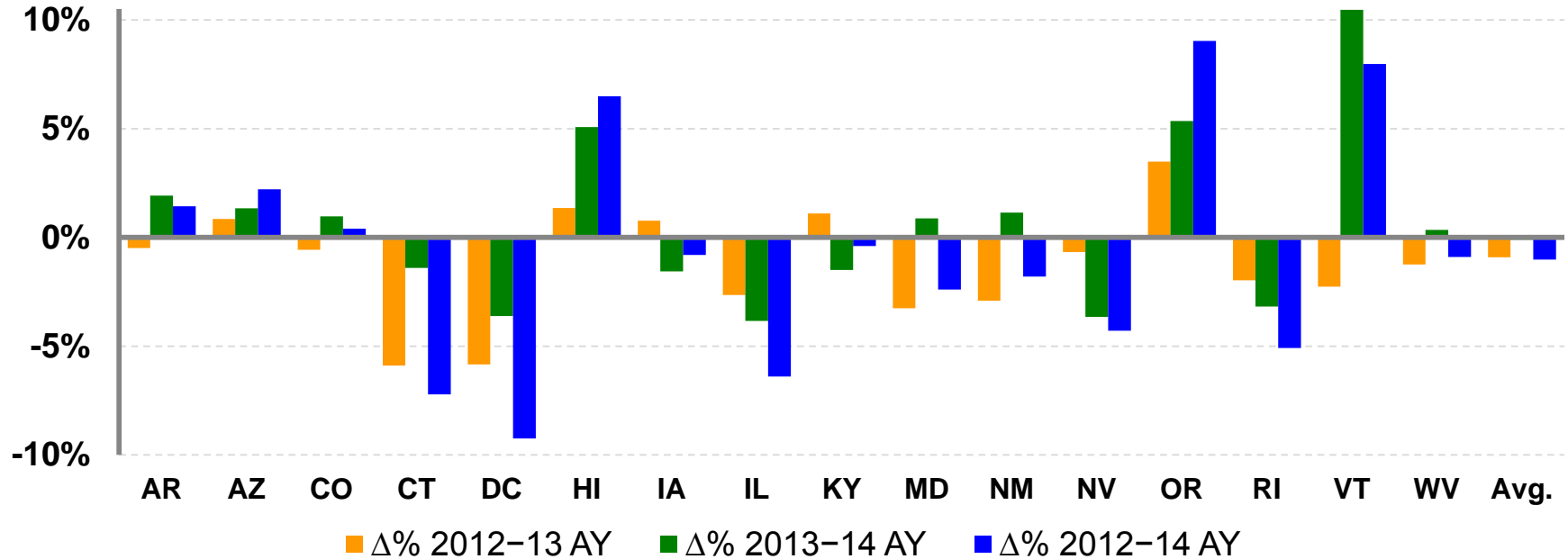
- Distribution of Primary Care intensity for states that did not expand Medicaid is similar in all years
 - Group mean is static for 2012, 2013, 2014: **3.1** PC Svc / Claim
 - Group standard deviation is static for 2012, 2013, 2014: **0.4** PC Svc /Claim

Source: NCCI Medical Data Call

A Natural Experiment

NCCI States With Medicaid Expansion Effective January 1, 2014

Change in Primary Care Services per Claim First 90 Days



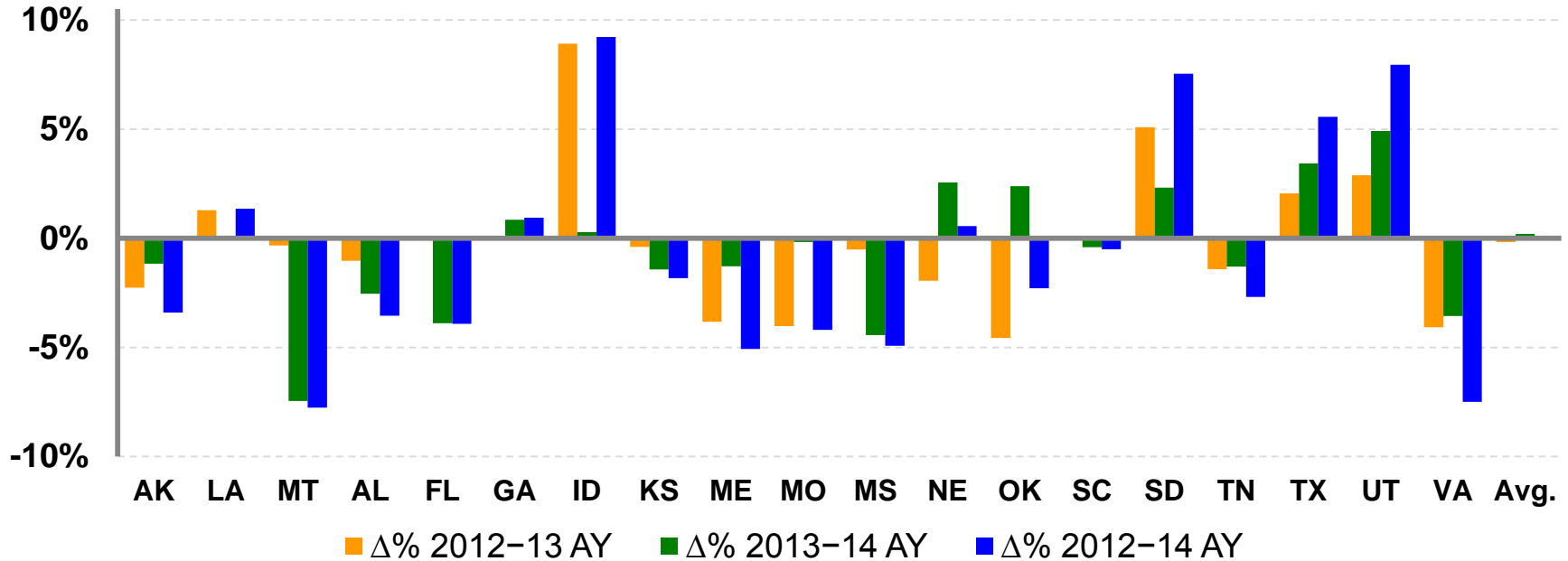
- Δ (Primary Care intensity at 90 days) for 2014 Medicaid expansion states
 - Group average: -0.9% 2012-13 -0.1% 2013-2014
 - Group standard deviation: 2.3% 2012-13 3.1% 2013-2014
 - No group-wide pattern in Primary Care intensity change from 2013 to 2014

Source: NCCI Medical Data Call

A Natural Experiment

NCCI States With No Medicaid Expansion Effective 2014

Change in Primary Care Services per Claim First 90 Days



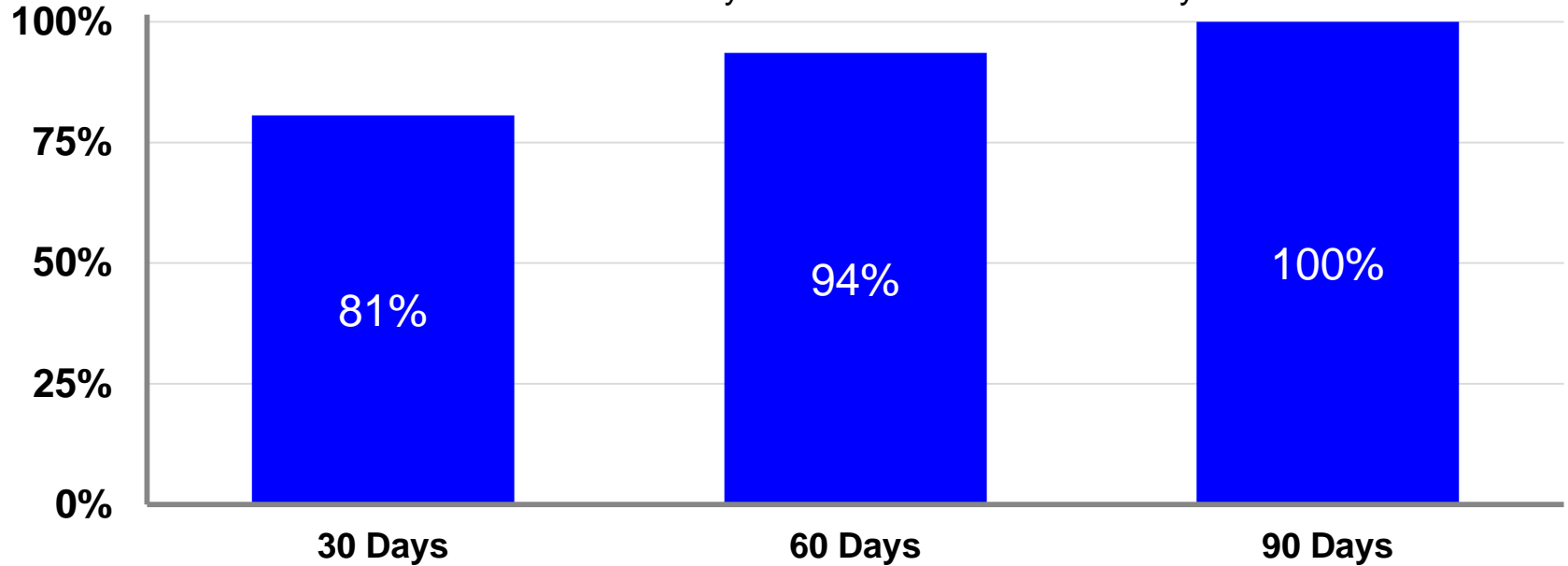
- Δ (Primary Care intensity at 90 days) for 2014 Medicaid non-expansion states
 - Group average: -0.2% 2012-13 0.2% 2013-2014
 - Group standard deviation: 2.7% 2012-13 3.0% 2013-2014
 - No group-wide pattern in Primary Care intensity change from 2013 to 2014

Source: NCCI Medical Data Call

Primary Care Services per Claim at 30/60/90 Days

Primary Care Intensity Within 30/60/90 Days

As a Share of Primary Care Services Within 90 Days



- Of Primary Care services that occur in the first 90 days, 81% occur in the first 30 days
- Average Primary Care intensity at 30, 60, and 90 days is virtually identical across the groups of Medicaid expander and Medicaid non-expander states, and static for all AYs 2012–14

Source: NCCI Medical Data Call

A Natural Experiment

Some Observations

- Primary Care intensity during the first 90 days of a claim looks the same in 2012, 2013, 2014 for Medicaid expanders and Medicaid non-expanders
 - Neither group showed a change in Primary Care intensity from 2013 to 2014, the effective year of the private insurance mandate and Medicaid expansion under the ACA
 - These observations also apply during the first 30 and 60 days of a claim
- The ACA does not have a visible state-level impact on Primary Care intensity in workers compensation
 - But does our state-level analysis mask differential regional impacts?

Case Study: Kentucky and Florida

■ Kentucky

- WC evaluation and management fees low relative to Medicare (WCRI 2012)
- Large medically uninsured population pre-2014
- Early Medicaid expander in 2014
- State-run insurance marketplace
- State average Primary Care services per claim static over time:
2.8 (2012) 2.9 (2013) 2.8 (2014)

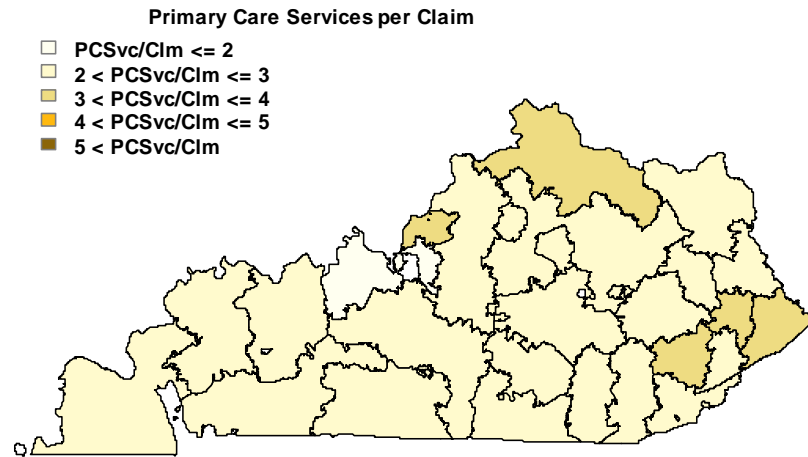
■ Florida

- WC evaluation and management fees low relative to Medicare (WCRI 2012)
- Large medically uninsured population pre-2014
- No Medicaid expansion to date
- Federally mediated insurance marketplace
- State average Primary Care services per claim static over time:
3.9 (2012) 3.9 (2013) 3.8 (2014)

Note: Workers Compensation Premium over Medicare as of July 2011 for Evaluation and Management is from Table 3 in Fomenko and Liu, *Designing Workers' Compensation Medical Fee Schedules*. WCRI (June 2012)

WC Primary Care Intensity

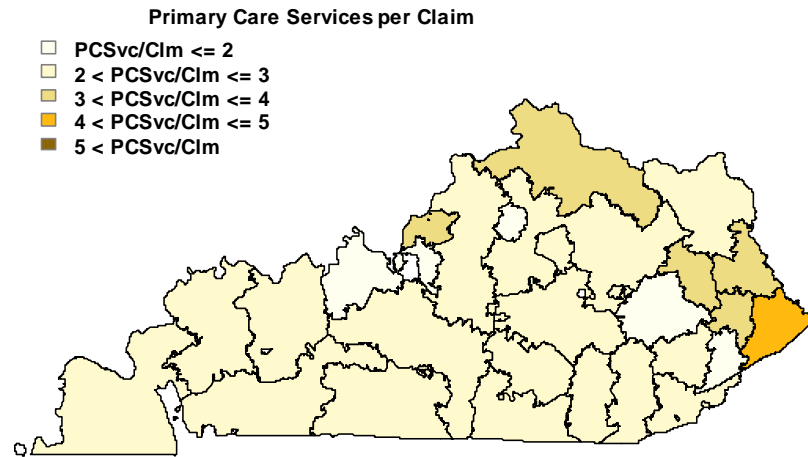
Kentucky (2012)



Source: NCCI Medical Data Call

WC Primary Care Intensity

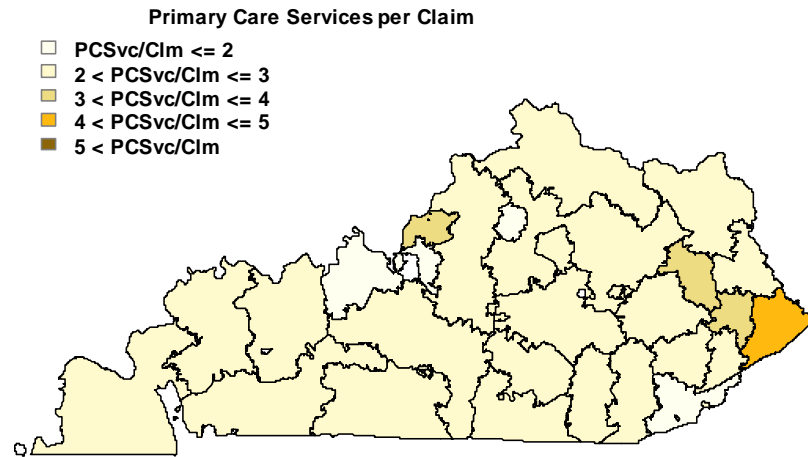
Kentucky (2013)



Source: NCCI Medical Data Call

WC Primary Care Intensity

Kentucky (2014)



Source: NCCI Medical Data Call

A Natural Experiment

Further Observations

- Primary Care intensity during the first 90 days of a claim looks similar across **all** NCCI states for 2012–2014
- Medicaid expanders look similar to Medicaid non-expanders at both the state and regional levels
- The ACA does not appear to have had any effect on Primary Care intensity through 2014



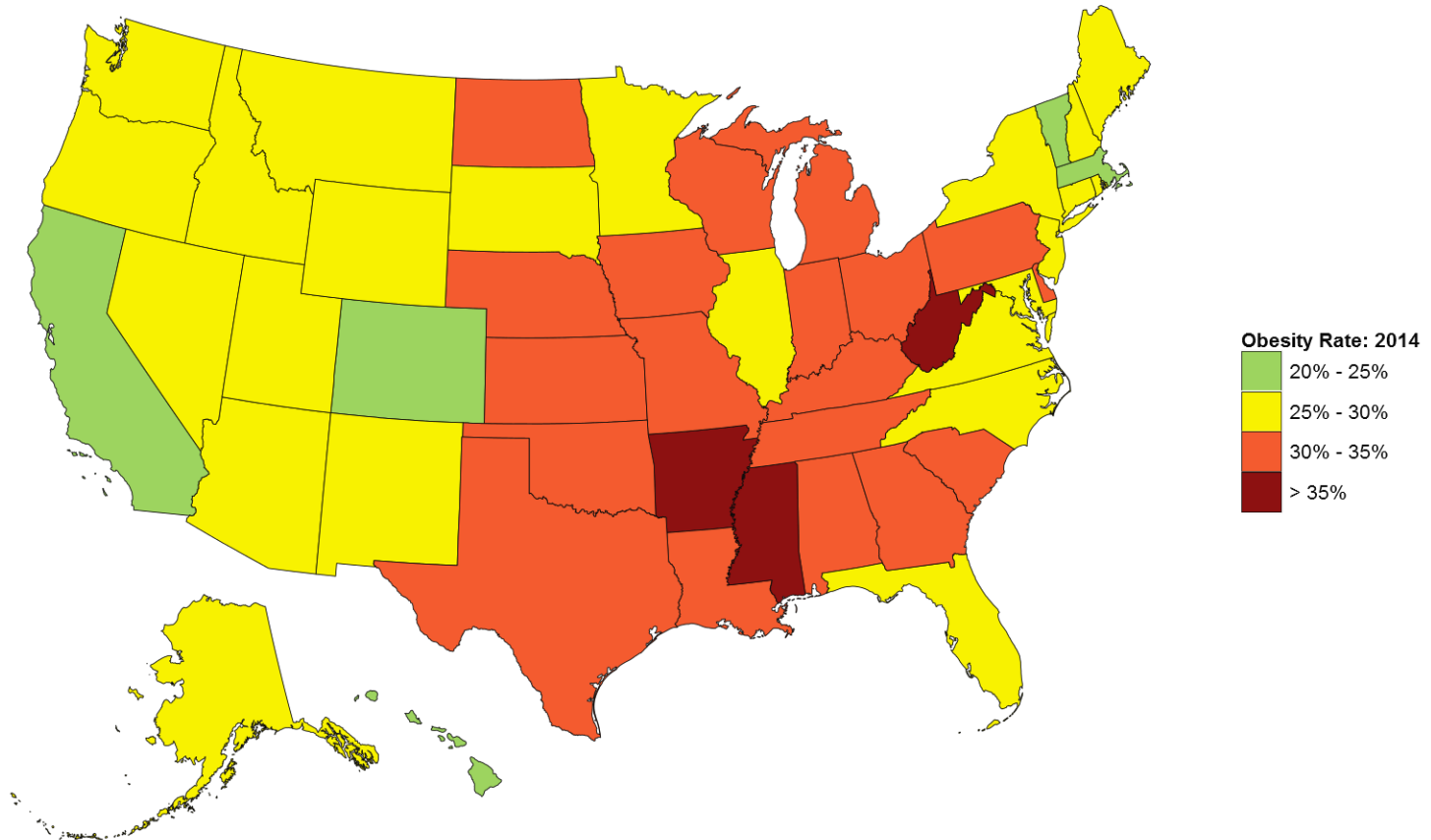
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The ACA and Wellness: Obesity and Medical Costs

Medical Cost Impact of Comorbidities

- An important goal of the ACA is to promote wellness
 - Many primary and preventive health care services are not subject to a deductible
- Also, workplace wellness programs are gaining traction
 - Participants may qualify for group health discounts
- Increasing wellness means lower comorbidity incidence
- Comorbidities particularly relevant to WC are:
 - Obesity
 - Hypertension
 - Diabetes
 - Pulmonary conditions
 - Drug abuse
- Obesity is the most studied comorbidity in terms of medical cost impact

Obesity is Widespread in the United States



- Obesity is defined as body mass index (BMI) ≥ 30
- Self-reported obesity rates vary across states (BRFSS, 2014)
- 35% US adult obesity rate in 2012 as estimated from clinical data (Ogden *et al*, 2014)

Self-reported obesity: Behavioral Risk Factor Surveillance System, Centers for Disease Control and Prevention
35% adult obesity: Ogden *et al*, Prevalence of Childhood and Adult Obesity in the United States, 2011–2012 .
JAMA 311:8 pp. 806-814 (2014)

Medical Cost Relativities for Obesity

- What is the medical cost relativity for obese versus non-obese populations?
 - Different methods give different results
- Direct comparison of obese and non-obese populations:
 - **1.42x** Finkelstein *et al* (2009)
 - **1.31x** Cawley and Meyerhoefer (2012)
- Obesity as a “causal effect” on medical care costs:
 - **2.55x** Cawley and Meyerhoefer (2012)
 - This estimate attempts to control for underreporting of obesity and also for episodes of obesity that are consequential rather than causal
 - However, it is unclear how to estimate what percentage of the population is obese in the “causal” sense of this estimate
 - Consequently, it is difficult to estimate the medical cost impact of “causal” obesity

Increased Medical Cost Due to Obesity

- Estimated medical cost increase at a 35% obesity rate in comparison with a 0% obesity rate
 - **15%** Finkelstein *et al* (2009)
 - **11%** Cawley and Meyerhoefer (2012)
- Estimated medical cost savings from reduction in the obesity rate from 35% to 25%:
 - **4%** Finkelstein *et al* (2009)
 - **3%** Cawley and Meyerhoefer (2012)
- These estimates suggest that a 10% reduction in the population obesity rate might reduce overall medical costs by 3% to 4%

Obesity as a Coded Comorbidity

- In some WC claims, obesity rises to the level of a coded comorbidity
 - For example, when surgery entails obesity-related complications
 - More often, obesity (BMI \geq 30) is not a coded comorbidity
- Medical expense relativities for coded obese WC claims versus all WC claims are extremely high
 - **9.9x** (Laws and Colón, 2012)
- But cases of coded obesity are rare
 - 0.3% coded obesity in AY 2009 (Laws and Colón, 2012)
 - This compares to 35% adult obesity in the United States in 2012
- Overall, the cost impact of coded obesity is lower
 - **3%** overall increase in medical cost relating to coded obesity
 - This compares to 11% to 15% overall medical cost impacts estimated for obesity defined more generally
 - Obesity that is uncoded does not “show up” in WC claims data



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Conclusions

The Affordable Care Act and Workers Compensation

- Primary care intensity during the first 90 days of a WC claim is static at the state level during 2012–2014
 - Medicaid expanders and non-expanders look the same at both state and regional levels
- We see no evidence that the ACA has “crowded out” WC access to primary care
- If the ACA’s wellness initiatives are successful in reducing comorbidities such as obesity, this may materially reduce medical costs of WC claims

The Affordable Care Act and Workers Compensation

Thank You

- Leonard F. Herk, Senior Economist
len_herk@ncci.com
- This presentation and a research report to follow will be available for download at ncci.com



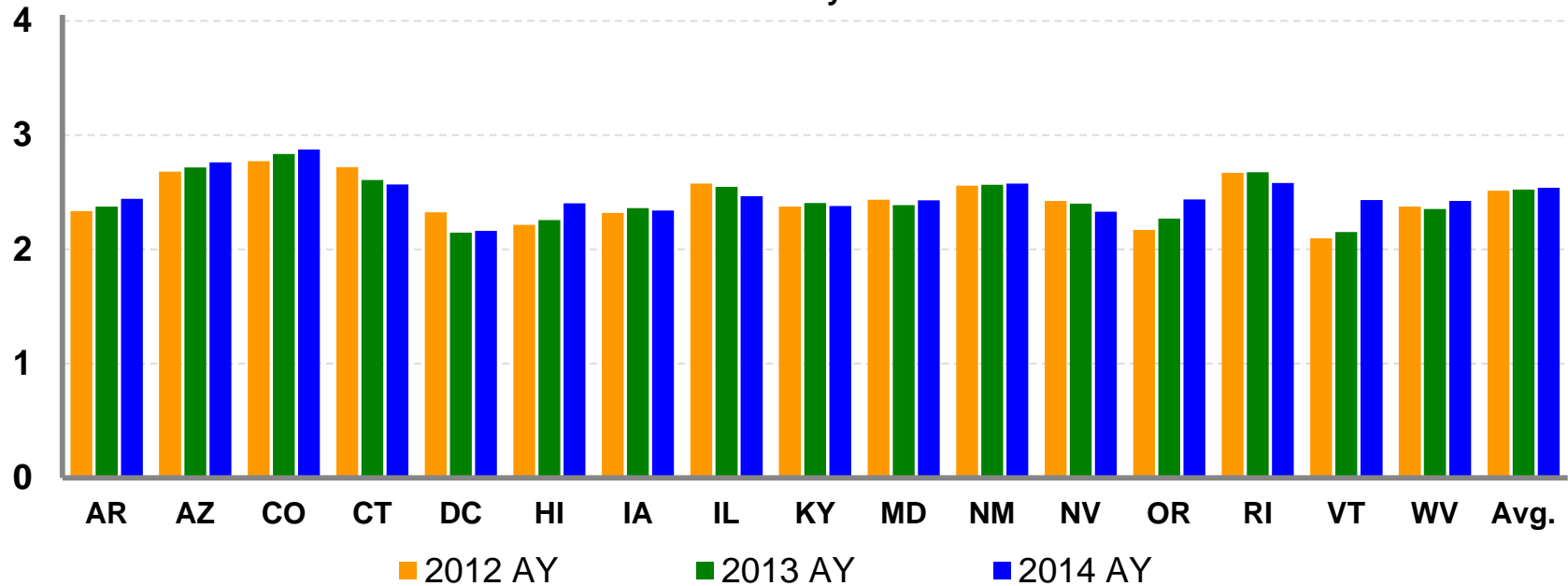
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Appendix

A Natural Experiment

NCCI States With Medicaid Expansion Effective January 1, 2014

Primary Care Services per Claim
First 30 Days



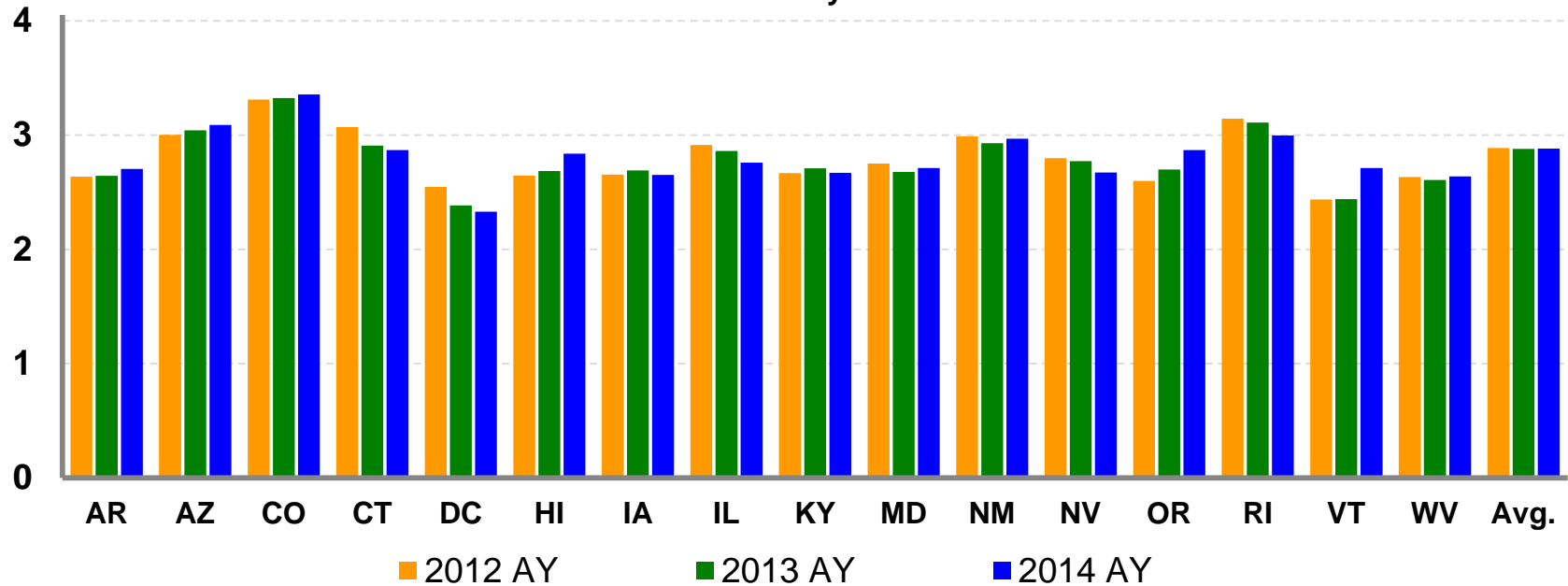
- Distribution of Primary Care intensity for states that expanded Medicaid is similar in all years
 - Group mean is static for 2012, 2013, 2014: **2.5** PC Svc / Claim
 - Group standard deviation is static for 2012, 2013, 2014: **0.2** PC Svc /Claim

Source: NCCI Medical Data Call

A Natural Experiment

NCCI States With Medicaid Expansion Effective January 1, 2014

Primary Care Services per Claim
First 60 Days



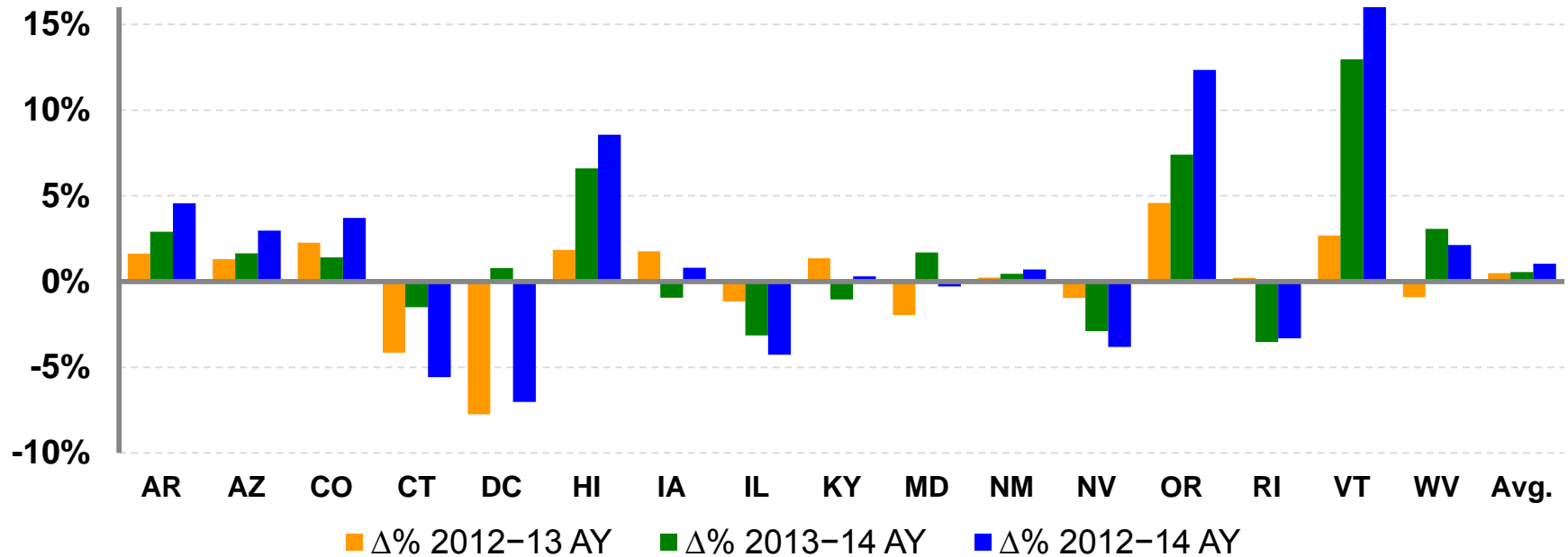
- Distribution of Primary Care intensity for states that expanded Medicaid is similar in all years
 - Group mean is static for 2012, 2013, 2014: **2.9** PC Svc / Claim
 - Group standard deviation is static for 2012, 2013, 2014: **0.2** PC Svc /Claim

Source: NCCI Medical Data Call

A Natural Experiment

NCCI States With Medicaid Expansion Effective January 1, 2014

Change in Primary Care Services per Claim First 30 Days



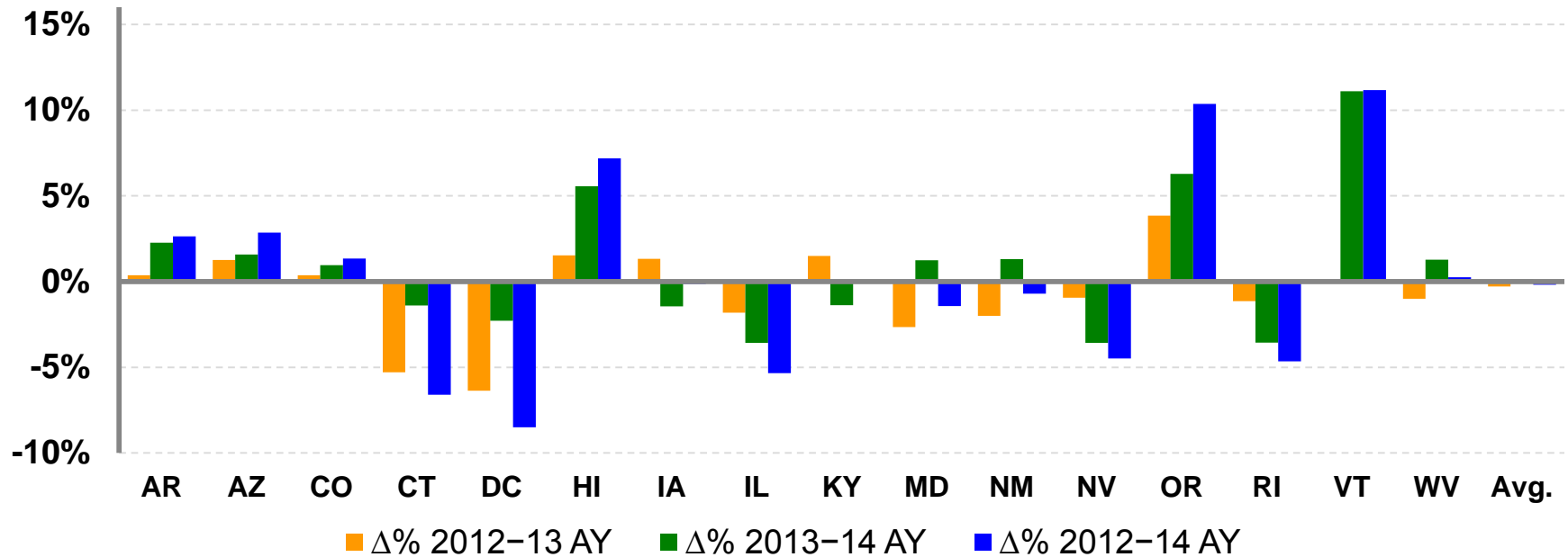
- Δ (Primary Care intensity at 30 days) for 2014 Medicaid expansion states
 - Group average: 0.5% 2012-13 0.6% 2013-2014
 - Group standard deviation: 2.2% 2012-13 3.5% 2013-2014
 - No group-wide pattern in Primary Care intensity change from 2013 to 2014

Source: NCCI Medical Data Call

A Natural Experiment

NCCI States With Medicaid Expansion Effective January 1, 2014

Change in Primary Care Services per Claim First 60 Days



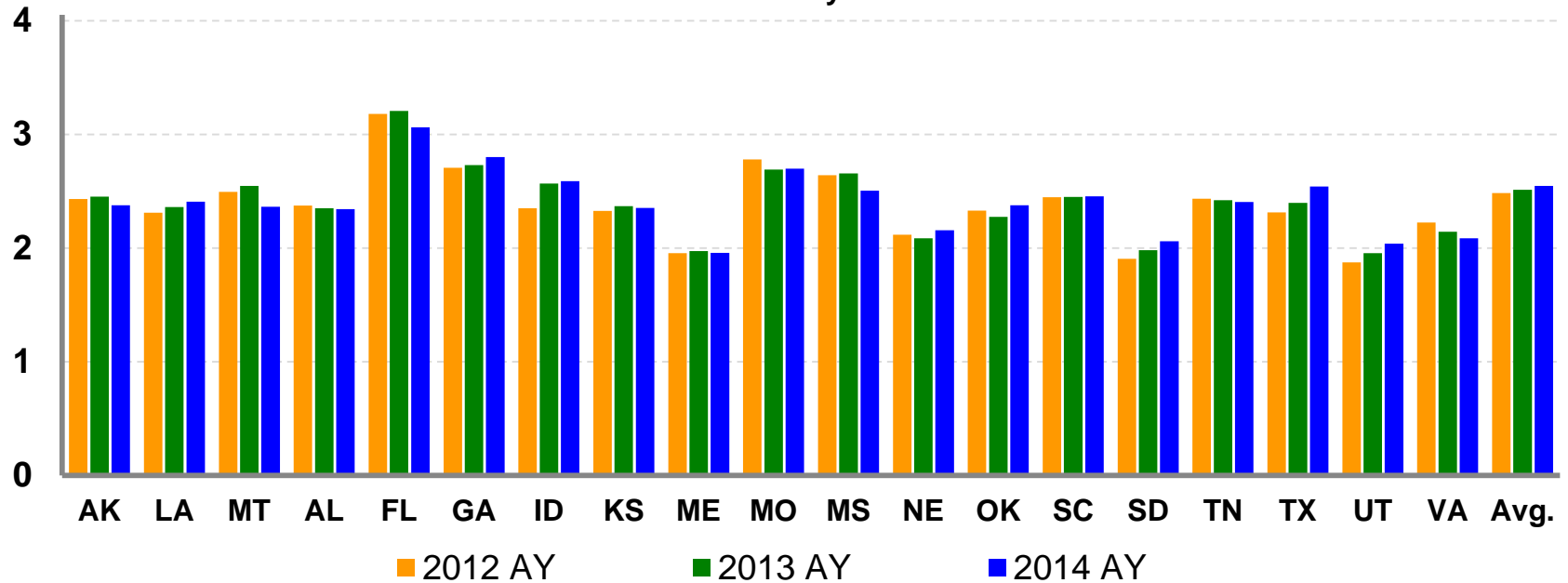
- Δ (Primary Care intensity at 60 days) for 2014 Medicaid expansion states
 - Group average: -0.3% 2012-13 0.1% 2013-2014
 - Group standard deviation: 2.2% 2012-13 3.2% 2013-2014
 - No group-wide pattern in Primary Care intensity change from 2013 to 2014

Source: NCCI Medical Data Call

A Natural Experiment

NCCI States With No Medicaid Expansion Effective in 2014

Primary Care Services per Claim
First 30 Days



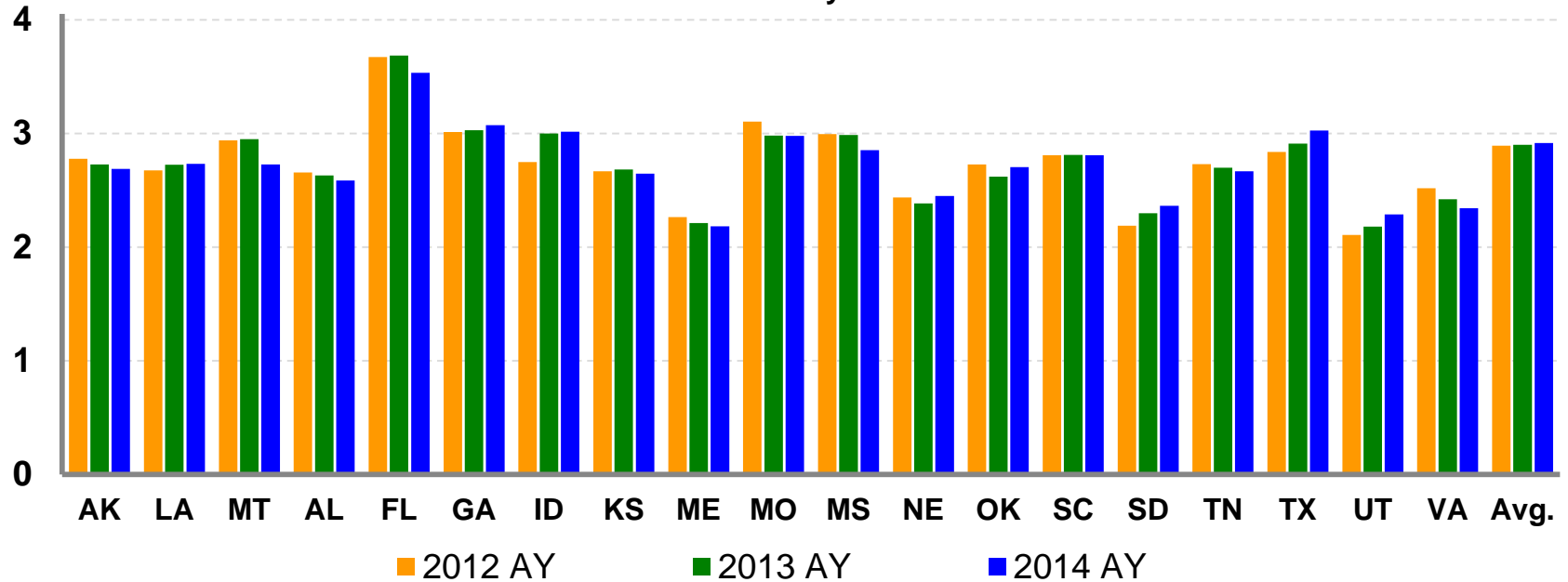
- Distribution of Primary Care intensity for states that did not expand Medicaid is similar in all years
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 - Group standard deviation is static for 2012, 2013, 2014: **0.3** PC Svc /Claim

Source: NCCI Medical Data Call

A Natural Experiment

NCCI States With No Medicaid Expansion Effective in 2014

Primary Care Services per Claim
First 60 Days



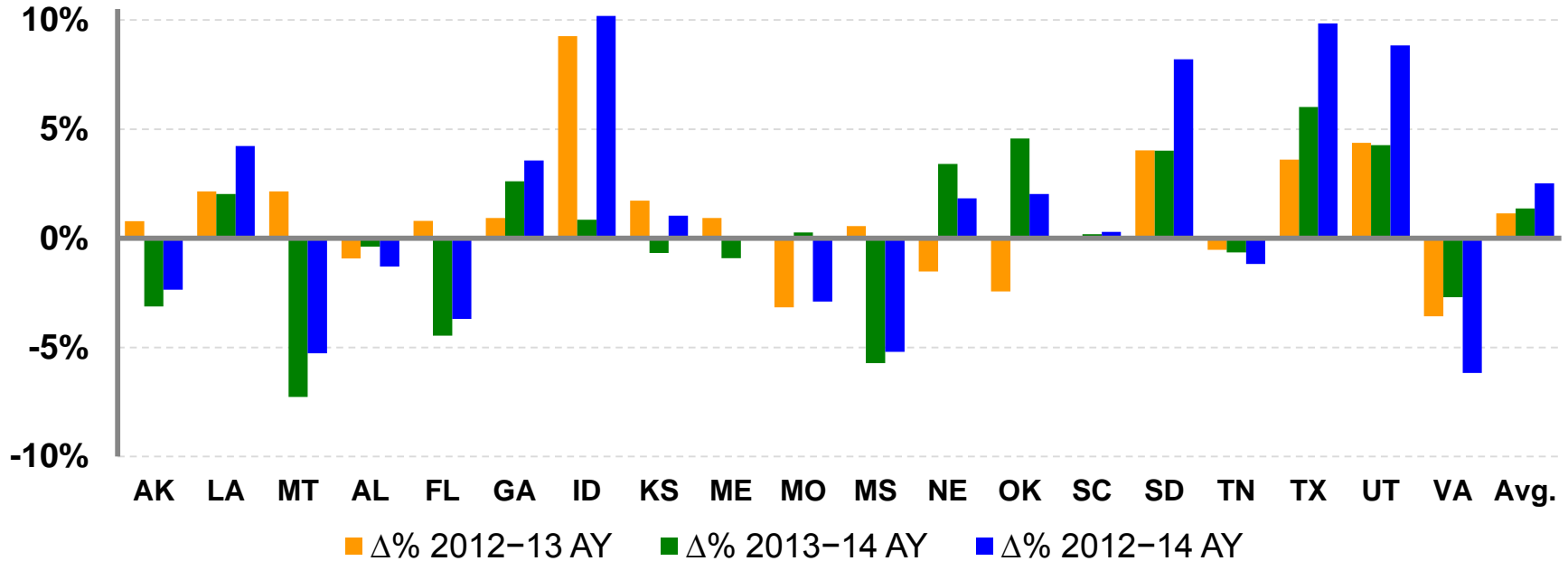
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 - Group mean is static for 2012, 2013, 2014: **2.9** PC Svc / Claim
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Source: NCCI Medical Data Call

A Natural Experiment

NCCI States With No Medicaid Expansion Effective in 2014

Change in Primary Care Services per Claim First 30 Days



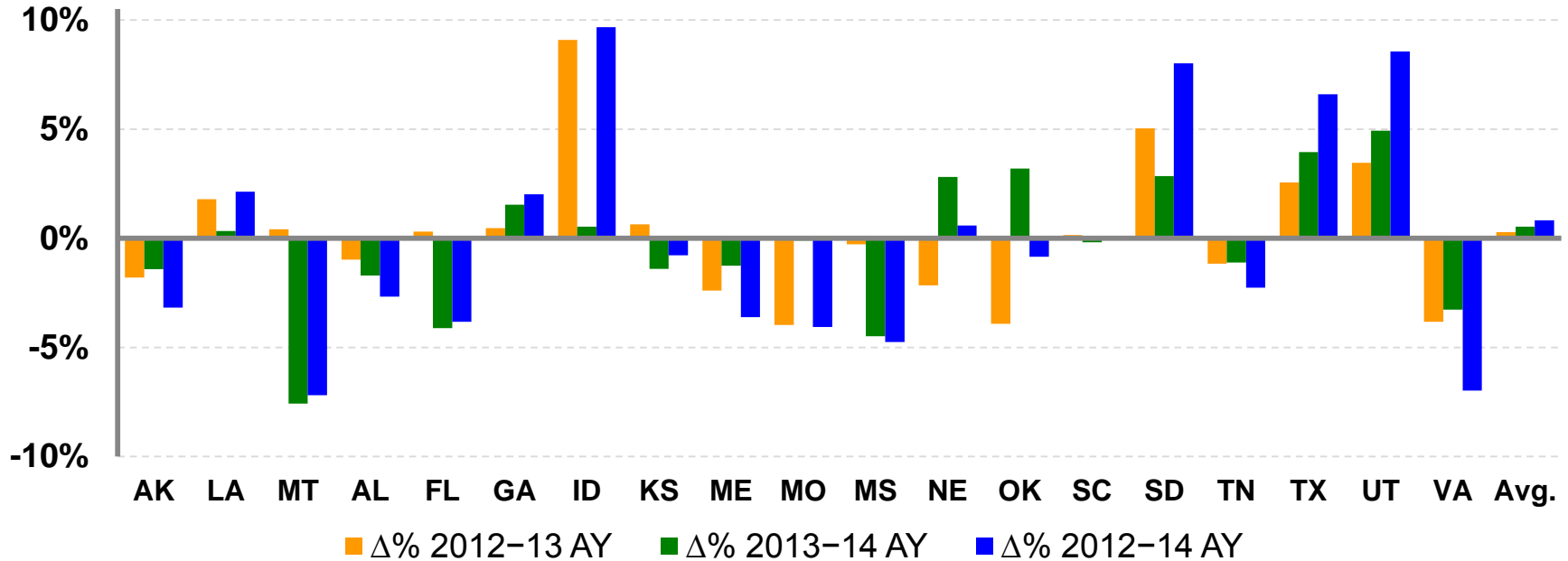
- Δ (Primary Care intensity at 30 days) for 2014 Medicaid non-expansion states
 - Group average: 1.1% 2012-13 1.4% 2013-2014
 - Group standard deviation: 2.6% 2012-13 3.9% 2013-2014
 - No group-wide pattern in Primary Care intensity change from 2013 to 2014

Source: NCCI Medical Data Call

A Natural Experiment

NCCI States With No Medicaid Expansion Effective in 2014

Change in Primary Care Services per Claim First 60 Days



- Δ (Primary Care intensity at 60 days) for 2014 Medicaid non-expansion states
 - Group average: 0.3% 2012-13 0.5% 2013-2014
 - Group standard deviation: 2.7% 2012-13 3.2% 2013-2014
 - No group-wide pattern in Primary Care intensity change from 2013 to 2014

Source: NCCI Medical Data Call