

NCCI Research

Impacts of the Affordable Care Act on Workers Compensation

By Leonard F. Herk, PhD
Senior Economist, NCCI

Overview

The Patient Protection and Affordable Care Act (ACA) has dramatically changed the healthcare landscape in the United States.

The ACA's individual health insurance mandate, together with the state option for Medicaid expansion, have increased the number of medically insured in America by roughly 20 million people as of early 2016, with the greatest impact occurring at the time both provisions first went into effect in 2014.¹

This article summarizes NCCI's research that addresses a frequently asked question regarding the impact of the ACA on the workers compensation insurance system: Has the increase in demand for primary care services by people newly insured under the ACA crowded out access to the same services by workers compensation claimants?

Key Findings

- The ACA has had no discernible impact in crowding out workers compensation claimants from access to primary care services

- through 2014, the first full year of expanded medical insurance coverage under the ACA
- 68% of primary care services provided during the first 90 days of a workers compensation claim occur during the claim's first 10 days

Introduction


The ACA has produced fundamental changes in the provision of medical insurance for millions of Americans since its enactment in 2010. Major provisions of the ACA include its mandate for many individuals not already covered by employer-sponsored insurance programs to buy health insurance offered by private insurers through state marketplaces, and support for the voluntary expansion of Medicaid eligibility at the state level.²

Both the individual health insurance mandate and the state option for Medicaid expansion have increased the number of newly medically insured people in America, with the greatest impact occurring at the time both provisions first went into effect in 2014.

While the ACA does not directly address workers compensation insurance, its larger effects on healthcare delivery in the US may nonetheless be expected to impact workers compensation as well. The ACA has increased medical

¹ "20 Million People Have Gained Health Insurance Coverage Because of the Affordable Care Act, New Estimates Show," US Department of Health and Human Services, March 3, 2016, www.hhs.gov.

² In states which elect to expand Medicaid, the ACA extends Medicaid eligibility to nearly all adults with incomes at or below 138% of the federal poverty level. Expanded Medicaid coverage receives 100% federal funding for three years, gradually reducing to 90% thereafter.

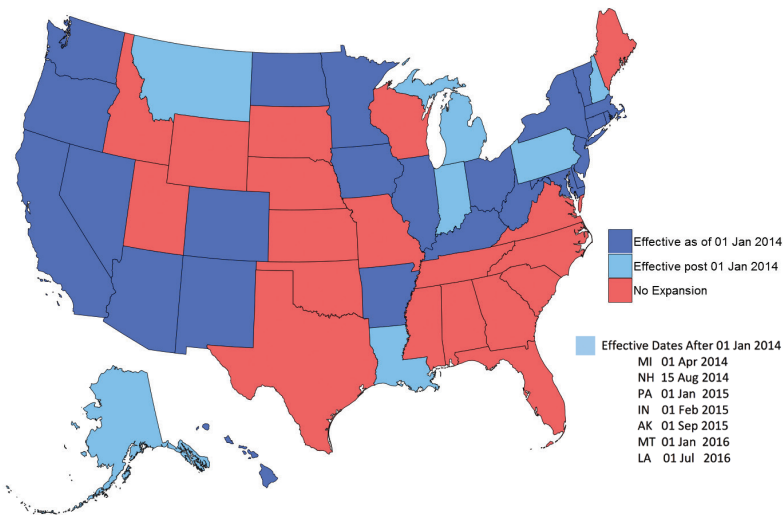


The ACA has produced fundamental changes in the provision of medical insurance for millions of Americans since its enactment in 2010.

insurance coverage, both via the individual mandate and Medicaid expansion. But has the resulting increase in demand for primary care services crowded out access to the same services for workers compensation claimants? To answer this question, we use medical data from

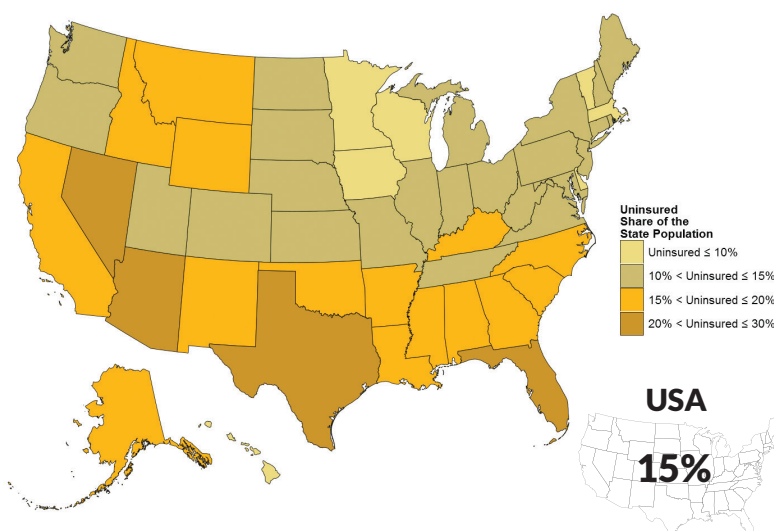
workers compensation claims to compare primary care utilization per claim during different time windows from the accident date for Accident Years 2012 through 2014, which includes the first year of expanded medical insurance under the ACA.

Figure 1 State Medicaid Expansion Status



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

Figure 2 Medically Uninsured Nonelderly in 2013



Source: The Henry J. Kaiser Family Foundation's State Health Facts, based on data from the US Census Bureau, Current Population Survey (CPS: Annual Social and Economic Supplements), March 2014.

The ACA and Expansion of Health Insurance Coverage

The ACA increased the medically insured population in the US through the individual health insurance mandate, which applies to certain individuals in all states, and through the expansion of Medicaid eligibility in states that elect this option. As originally enacted, the ACA included a provision that any state opting out of Medicaid expansion could lose its preexisting federal Medicaid funding. In 2012, the US Supreme Court found this provision to be unconstitutionally coercive and severed it from the ACA, effectively giving each state the option to expand Medicaid or not without penalty.³ Both the individual health insurance mandate and optional state expansion of Medicaid eligibility went into effect on January 1, 2014.

Medicaid expansion status for all states as of July 2016 is shown in Figure 1. In 25 states (including the District of Columbia) Medicaid expansion took effect on January 1, 2014, the earliest possible date under the ACA. Seven other states have expanded Medicaid since then, with effective dates as indicated in Figure 1. No state has reversed its decision to expand Medicaid. To date, 19 states have declined to expand Medicaid.

Figure 2 shows the percentage of nonelderly persons without health insurance in 2013, the year immediately before the ACA's

³ National Federation of Independent Business v. Sebelius 567 U.S. __ (2012).

individual mandate and optional Medicaid expansion became effective. A nonelderly person is anyone younger than age 65. Because Medicare provides medical insurance for nearly all elderly persons 65 years of age and older, they are excluded from the calculation. Countrywide, the medically uninsured rate among the nonelderly population was 15% during 2013. In that year, the highest proportions of medically uninsured nonelderly populations, with percentages exceeding 15%, were concentrated in a band of states running across the southern tier of the country, from North Carolina to California.

Figure 3 shows the increase in the medically insured nonelderly as a percentage of the nonelderly population⁴ from 2013 to 2014, the first year of state insurance marketplaces and optional Medicaid expansion under the ACA. At the national level, the increase in the medically insured nonelderly population was 3% between these years. At the state level, several observations are pertinent:

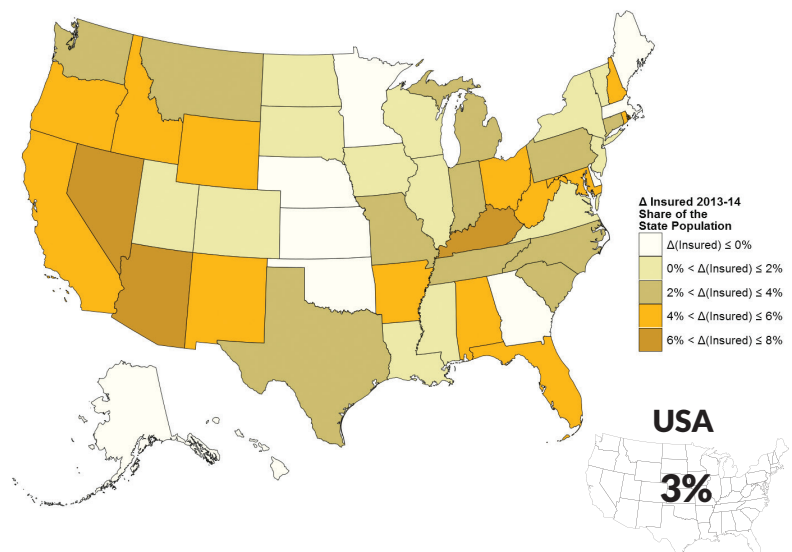
- States with large percentage increases in their medically insured populations in 2014 (post-ACA) are not always those with the largest medically uninsured populations in 2013 (pre-ACA)
- States with large percentage increases in their medically insured populations in 2014 are Medicaid expanders, as well as those states where a large percentage of the population was eligible for subsidized medical insurance through the state marketplaces⁵
- None of Southern tier states with medically uninsured rates above 15%—from Texas to North Carolina, with the exception of Arkansas—expanded Medicaid in 2014

The ACA and Workers Compensation Access to Primary Care: Data and Methodology

Our study of the ACA's impact on workers compensation's access to primary care makes use of NCCI's Medical Data Call (MDC). The MDC contains transaction-level data for medical services billed as part of workers compensation claims arising under the jurisdiction of 36 states where NCCI provides ratemaking services, referred to hereafter as *NCCI states*,⁶ as well as several other states. Data in the MDC begins with transactions processed during the second half of 2010. This study includes transactions reported to insurers through March 2015.

Our analysis separates states into two groups: *2014 Medicaid expanders* are states which expanded Medicaid effective January 1, 2014 and *2014 Medicaid nonexpanders* are states which did not expand Medicaid at any time during 2014. For the purposes of this study, the five states—AK, IN, LA, MT, and PA—which expanded Medicaid in 2015 or later are 2014 Medicaid nonexpanders. The two states—MI and NH—

Figure 3 Increase in Medically Insured Nonelderly from 2013 to 2014



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

⁴ Equivalently, the decrease in medically uninsured nonelderly as a percentage of the state's nonelderly population.

⁵ The impacts of state marketplaces and Medicaid expansion in increasing health insurance coverage for low-income workers are discussed in "ACA Coverage Expansions and Low-Income Workers" by Alanna Williamson et al., The Kaiser Family Foundation, June 10, 2016, www.kff.org.

⁶ The 36 NCCI states are AL, AK, AR, AZ, CO, CT, DC, FL, GA, HI, IA, ID, IL, KS, KY, LA, MD, ME, MO, MS, MT, NE, NH, NM, NV, OK, OR, RI, SC, SD, TN, TX, UT, VA, VT, WV.

which expanded Medicaid during 2014 but after January 1 are not counted in either group.

This research is limited to 35 NCCI states,⁷ which we categorize as follows:

16 NCCI States—2014 Medicaid Expanders	19 NCCI States—2014 Medicaid Nonexpanders
AR, AZ, CO, CT, DC, HI, IA, IL, KY, MD, NM, NV, OR, RI, VT, WV	AL, AK, FL, GA, ID, KS, LA, ME, MO, MS, MT, NE, OK, SC, SD, TN, TX, UT, VA

In our analysis, every medical service transaction or hospital inpatient episode is assigned a relative value, or price, based on the 2013 Medicare fee schedule, but without adjustment for payment locality. For example, an MRI has a higher relative value than an X-ray, but the relative values of both services do not vary across states or from year to year. Our intent is to measure medical service utilization using a yardstick that assigns representative relative values to different types of medical services, but is constant across different states and over time.

We define medical service *utilization* per claim to be the sum of medical services, at Medicare relative values, that are delivered within a certain time window following the claim's accident date. In this research, we consider time windows of 10, 30, 60, and 90 days from the accident date of a claim. The concept of medical service utilization can be refined to focus on certain categories of medical services, such as primary care services, physical therapy, surgery, and drugs.

This study will focus on primary care services, as discussed below.

Medical *intensity* per claim refers to the average medical service utilization per claim within the

indicated time window over all relevant claims—for example, over all claims in a given state for a given accident year.

It should be noted that our measure of medical intensity is not readily interpretable *in absolute terms*—say, as a dollar amount—because it stops short of incorporating Medicare factors for geographic price differentials. However, medical service intensities are comparable across different states *in relative terms*. For example, medical service intensities of 2.5 in state X and 2.0 in state Y imply that state X provides 25% more value-weighted medical services per claim than state Y.

For this research, an accident year begins on October 3 of the preceding calendar year and ends on October 2 of the corresponding calendar year. Thus, for example, Accident Year 2014 consists of claims whose accident date fell between October 3, 2013 and October 2, 2014, inclusive. We adopt this dating convention to minimize the risk of data truncation for claims originating in Accident Year 2014, taking into account that MDC data used in this study was last updated during March 2015. As an example, a claim originating on October 2, 2014, the last day of our 2014 accident year, would have its 90-day window running through December 31, 2014, after which the last MDC update occurs three months later.

Because this study is concerned with the ACA's potential effect of crowding out workers compensation's access to primary care services, it is necessary to define what services are counted as primary care. In this study, we define *Primary Care*⁸ services to include all medical services whose procedure codes⁹ are associated with office visits, emergency room visits, diagnostic

⁷ New Hampshire is the only NCCI state excluded from our analysis because it expanded Medicaid during 2014, but after January 1.

⁸ When capitalized, *Primary Care* refers to the collection of procedure codes classified as primary care in this study.

⁹ We rely primarily, though not exclusively, on Current Procedural Terminology (CPT) codes, a comprehensive set of medical treatment codes maintained by the American Medical Association.

imaging (such as X-rays and MRIs), and diagnostic testing. Primary Care services do not include medical services whose procedure codes indicate surgery, physical medicine, drugs, and supplies.

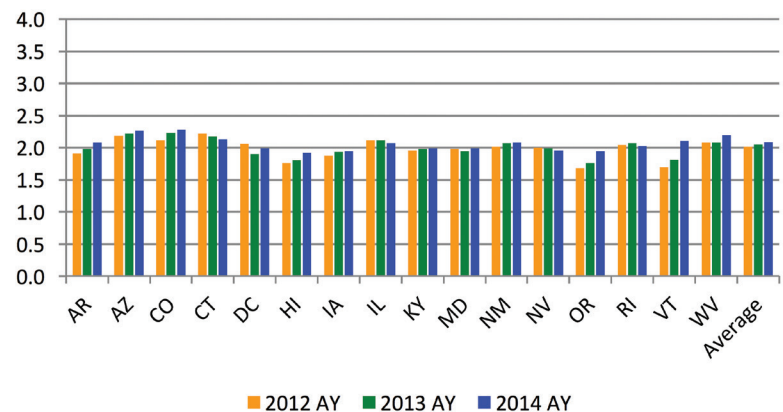
As a straightforward extension of the terminology introduced earlier, Primary Care *intensity* per claim means average Primary Care service utilization per claim within the relevant time window over all relevant claims.

As a caveat, we note that Primary Care intensity may vary in any state from year to year for a variety of reasons, including the adoption of new treatment protocols or fee schedules, different degrees of health provider network penetration, and changes in the injury mix. We are not attempting a comprehensive analysis of the various causal factors that affect interstate variations in Primary Care intensity. Rather, our maintained assumption in this analysis is that none of these factors vary systematically across the two groups of states, 2014 Medicaid expanders and 2014 Medicaid nonexpanders, in such a way to affect the comparison between the groups.¹⁰

The ACA and Workers Compensation Primary Care: Results

Figure 4 shows Primary Care intensity during the first 10 days of a claim in Accident Years 2012, 2013, and 2014 for the 16 NCCI states that expanded Medicaid as of January 1, 2014. Within the group of 2014 Medicaid expanders, different states exhibit varying levels of Primary Care intensity. Also, Primary Care intensity decreased in some 2014 Medicaid expander states

Figure 4 10-Day Primary Care Intensity: NCCI 2014 Medicaid Expander States
Primary Care Services per Claim
First 10 Days



Source: NCCI's Medical Data Call. Accident years begin October 3 of the preceding year and end October 2 of the indicated year.

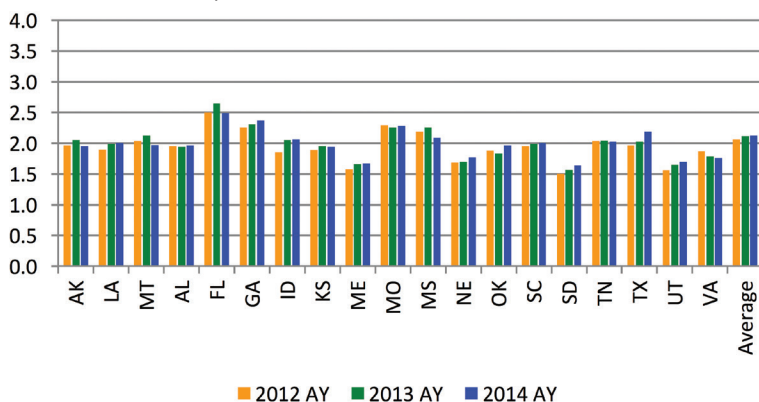
from 2012 to 2014, while increasing in other states. However, when we consider the 2014 Medicaid expanders as a group, average Primary Care intensity was identical at 2.1 (0.1)¹¹ in Accident Years 2013 and 2014, and statistically indistinguishable from average Primary Care intensity of 2.0 (0.2) in Accident Year 2012. At the mean/variance level, Primary Care intensity for the 2014 Medicaid expander states did not change at all over the Accident Years 2012, 2013, and 2014.

Figure 5 shows similar results for Primary Care intensity during the first 10 days of a claim in Accident Years 2012, 2013, and 2014 for the 19 NCCI states that did not expand Medicaid during 2014. Again, the level of Primary Care intensity varies across states and increases or decreases over time for different states in this group. For the 2014 Medicaid nonexpanders overall, average Primary Care intensity and its standard deviation were unchanged at 2.1 (0.3) in each of the three accident years. As with the

¹⁰ In statistical terms, we are assuming that all other factors influencing Primary Care intensity are conditionally independent of a state's status as a 2014 Medicaid expander or nonexpander.

¹¹ Standard deviations appear in parentheses following the average Primary Care intensity for each group. Group averages for Primary Care intensity and standard deviation are obtained by clustering claims over states in the group. Average Primary Care intensity (average Primary Care service utilization per claim) obtained in this way is the same as the claim-weighted average of Primary Care intensity over all states in the group.

Figure 5 10-Day Primary Care Intensity: NCCI 2014 Medicaid Nonexpander States
Primary Care Services per Claim
First 10 Days



Source: NCCI's Medical Data Call. Accident years begin October 3 of the preceding year and end October 2 of the indicated year.

2014 Medicaid expanders, Primary Care intensity for the 2014 Medicaid nonexpander states were indistinguishable at the mean/ variance level over Accident Years 2012, 2013, and 2014.

Table 1 aggregates Primary Care intensity measures during the first 10, 30, 60, and 90 days of a claim for NCCI states in the two groups that form the focus of this study: 2014 Medicaid expanders and 2014 Medicaid nonexpanders.

Comparing 2014 Medicaid expander states and 2014 Medicaid nonexpander states in Table 1, the observations below hold for each time window we consider in this study (10, 30, 60, and 90 days from the accident date of a claim):

- For 2014 Medicaid expanders and 2014 Medicaid nonexpanders, Primary Care intensity was unchanged in each of the Accident Years 2012, 2013, and 2014
- Both 2014 Medicaid expanders and 2014 Medicaid nonexpanders had the same level of Primary Care intensity in every accident year
- 2014 Medicaid nonexpander states exhibit more within-group variation in Primary Care intensity than 2014 Medicaid expander states

From these findings, we conclude that the ACA has had no discernible impact in crowding out workers compensation claimants from access to primary care services through 2014, the first full year of expanded medical insurance coverage under the ACA.

In view of the absence of variation of Primary Care intensity across both groups of states and over all accident years through 2014, a single value for Primary Care intensity fully characterizes each time window from the accident date of a claim. Using the 90-day window as a benchmark, Figure 6

Table 1 Primary Care Intensity for 2014 Medicaid Expander and Nonexpander States

State Group	AY 2012		AY 2013		AY 2014	
	Within 10 Days of Accident Date					
	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
NCCI 2014 Medicaid Expander States	2.0	0.2	2.1	0.1	2.1	0.1
NCCI 2014 Medicaid Non-Expander States	2.1	0.3	2.1	0.3	2.1	0.3
	Within 30 Days of Accident Date					
	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
NCCI 2014 Medicaid Expander States	2.5	0.2	2.5	0.2	2.5	0.2
NCCI 2014 Medicaid Non-Expander States	2.5	0.3	2.5	0.3	2.5	0.3
	Within 60 Days of Accident Date					
	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
NCCI 2014 Medicaid Expander States	2.9	0.2	2.9	0.2	2.9	0.2
NCCI 2014 Medicaid Non-Expander States	2.9	0.4	2.9	0.4	2.9	0.4
	Within 90 Days of Accident Date					
	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
NCCI 2014 Medicaid Expander States	3.1	0.3	3.1	0.3	3.1	0.3
NCCI 2014 Medicaid Non-Expander States	3.1	0.4	3.1	0.4	3.1	0.4

Source: NCCI's Medical Data Call. Accident years begin October 3 of the preceding year and end October 2 of the indicated year.

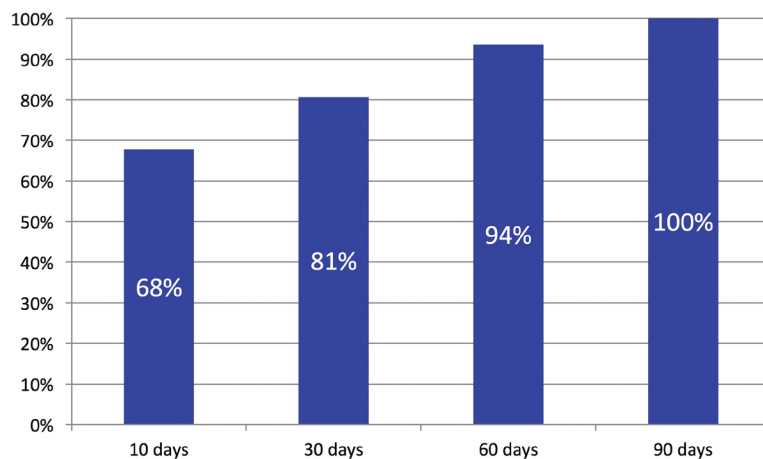
shows the progression of Primary Care service utilization over the early life of a workers compensation claim. Not surprisingly, Primary Care services are most concentrated during the early days of a claim. Of total Primary Care services provided during the first 90 days of a workers compensation claim, fully 68% occur during the claim's first 10 days.

Acknowledgements

The author thanks Barry Lipton, John Robertson, Raji Chadarevian, Shawn Adcock, Amanda Glish, Patrick O'Brien, Kirk Bitu, Tanya Restrepo, and Chun Shyong for their help with this research.

Leonard F. Herk, PhD, is the senior economist in NCCI's Actuarial and Economic Services Division.

Figure 6 Primary Care Intensity Within 10, 30, 60, and 90 Days
As a Share of Primary Care Services Within 90 days



Source: NCCI's Medical Data Call.

Additional Research

The full ACA report, available on ncci.com in November 2016, shows that:

- For both Kentucky, which adopted Medicaid expansion, and Florida, which did not adopt Medicaid expansion, regional variations within each state in Primary Care intensity from one accident year to the next are minor and do not display any obvious pattern.
- A reduction in the US obesity rate from 35% to 25%, in accordance with the goals of the ACA's wellness initiative, might reduce workers compensation medical costs by 3% to 4%.

The full report also includes a table of Primary Care intensity statistics by accident year for each state included in this study.