ACT-19-03 Actuarial Committee Work Plan

Background

The Work Plan summarizes activities to be addressed during the year. NCCI staff creates the plan once a year and usually presents it at the first meeting of the year. Status reports are provided periodically.

Discussion

Staff will present the 2019 Work Plan. In addition to the Work Plan, staff prepares the NCCI Review Schedule. The schedule displays details, including a review frequency of key actuarial projects. Bold entries on the schedule correspond to items on the Work Plan. These items are currently in progress or will begin in the near future.

Please refer to the following exhibits for more information:

- Exhibit 3-1: 2019 Work Plan
- Exhibit 3-2: Review Schedule

NCCI ACTUARIAL COMMITTEE 2019 WORK PLAN					
Subject Area	**Subject Description**	**Last Reviewed**	**Last Updated**	**Status**	**Comments**
Aggregate Ratemaking	Loss Adjustment Expense Methodology	2017	2015	In Progress	
	NCCI Internal Rate of Return			In Progress	
	• Methodology, including Cost of Capital	2015	2015		
	• Tax Review	2018	2018		
Class Ratemaking	Relativity Calculation Methodology—F-class	2007	2009	In Progress	
	USL&HW Factor Calculation	2003	2003	In Progress	
	Industry Group Differential: Manual-to-Standard Ratio Application			In Progress	
Individual Risk Rating	Experience Rating—Performance Testing			In Progress	
	• Methodology	2010	2010		
	• Results		2011		
	Experience Rating—Plan Parameters and Values Methodology	2012	2012	In Progress	
	Retrospective Rating—Excess Loss Factors Methodology (ELF Curve Refresh)	2019	2019	Complete	National Item R-1417 was filed in May 2019
	Retrospective Rating—Hazard Group Mapping	2006	2006	In Progress	
Legislative Analysis	Standard Wage Distribution	2009	2009	In Progress	

NCCI ACTUARIAL COMMITTEE REVIEW SCHEDULE				
Subject Area	**Subject Description**	**Last Reviewed**	**Last Updated**	**Review Frequency**
Aggregate Ratemaking	Assigned Risk Expense Provisions Methodology	2011	2011	8-10 years
	Assigned Risk Ratemaking Methodology	2005	2005	as necessary
	Catastrophe Provisions • Methodology • Values	2018	2018	as necessary Earthquake methodology updated in 2018
	Terrorism Provisions • Methodology • Values	2017	2017	as necessary
	Expenses by Size of Risk	2015	2015	as necessary
	Large Loss Limiting Methodology	2018	2012	4-6 years
	Loss Adjustment Expense Methodology	**In progress**	**2015**	**4-6 years**
	Monthly Premium Distribution Methodology	2017	2017	7-10 years
	NCCI Countrywide Expense Provisions Methodology	2005	2003	as necessary
	NCCI Internal Rate of Return • **Methodology, including Cost of Capital** • **Tax Review**	**2015** **2018**	**2015** **2018**	**4-6 years** **as necessary**
	Off-balance Methodology	2011	2011	4-6 years

Bold entries represent items on the Work Plan. These items are currently in progress or will be started soon. Highlighted entries are changes from the prior schedule. Items with strikethrough format are proposed to be removed from the schedule.

NCCI ACTUARIAL COMMITTEE
REVIEW SCHEDULE

Subject Area	Subject Description	Last Reviewed	Last Updated	Review Frequency
Aggregate Ratemaking (cont'd)	Tail Factor Calculation Methodology	2012	2012	as necessary
Class Ratemaking	Advisory Miscellaneous Values			as necessary
	• Partners/Sole Proprietors, and Executive Officers	2010	2010 (B-1420)	
	• All Others	2010	2011 (B-1422)	
	Credibility Formulas and Standards			as necessary
	• Indicated, National, and PORL Pure Premiums	2017	2018	
	• Industry Group Differentials	2009	2009	
	Disease Loadings			as necessary
	• Coal Mine	2014	2014	
	• Other	1993	1993	
	Increased Limits			10-15 years
	• Increased Limits Percentages for Workers Compensation and Employers Liability	2011	2011	Assignments to state groupings to be reviewed as necessary
	• Increased Limits Factors for Employers Liability for Admiralty/FELA	2011	2011	
	Industry Group Differential Methodology	2018	2009	7-10 years

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NCCI ACTUARIAL COMMITTEE REVIEW SCHEDULE				
Subject Area	**Subject Description**	**Last Reviewed**	**Last Updated**	**Review Frequency**
Class Ratemaking (cont'd)	Large Loss Limiting Methodology • Review $500K per claim/$1.5M per occurrence per policy	2018	2009	7-10 years
	(Limited) Loss Development • Part of Body Mappings • Likely/Not-likely Groupings • Tail Factor	2013	2014	7-10 years
	Minimum Premium Methodology	2015	1992	7-10 years
	Relativity Calculation Methodology • Industrial Class • **F-class** • Maritime/FELA	 2007 **2007** 2007	 2009 **2009** 2000 (B-1366)	7-10 years
	Allocation of expected excess by partial pure premiums	2013	2009	7-10 years
	USL&HW Factor Calculation	**2003**	**2003**	**as necessary**
Data/Data Reporting	WCSP Pension Tables	2013	2013	7-10 years
Individual Risk Rating	Deductible Credit Methodology	2016	2016	7-10 years

Bold entries represent items on the Work Plan. These items are currently in progress or will be started soon. Highlighted entries are changes from the prior schedule. Items with strikethrough format are proposed to be removed from the schedule.

NCCI ACTUARIAL COMMITTEE REVIEW SCHEDULE				
Subject Area	**Subject Description**	**Last Reviewed**	**Last Updated**	**Review Frequency**
Individual Risk Rating (cont'd)	**Experience Rating—Performance Testing**			
	• **Methodology**	**2010**	**2010**	**3-5 years**
	• **Results**		**2011**	**1-2 years**
	Experience Rating			
	• **Plan Parameters and Values Methodology**	**2012**	**2012**	**As indicated by performance testing**
	• State Premium Eligibility Amounts	2015	2015 (E-1404)	7-10 years
	Retrospective Rating—Excess Loss Factors			
	• **Methodology (Parameters)**	2014	2014	Review ELF methodology every 10 years
		2019	**2019 (R-1417)**	**Review state ELF curves every 5 years**
	• USL&HW Values	2008	2008	as necessary
	Retrospective Rating—Hazard Group Mapping	**2006**	**2006**	**10 years**
	Retrospective Rating—Premium Eligibility Amounts	pre-1984	pre-1984	no plans to review
	Retrospective Rating—Table M Methodology and Values (Aggregate Loss Factors)	2017	2018 (R-1414A)	10 years

Bold entries represent items on the Work Plan. These items are currently in progress or will be started soon. Highlighted entries are changes from the prior schedule. Items with strikethrough format are proposed to be removed from the schedule.

NCCI ACTUARIAL COMMITTEE REVIEW SCHEDULE				
Subject Area	**Subject Description**	**Last Reviewed**	**Last Updated**	**Review Frequency**
Individual Risk Rating (cont'd)	Retrospective Rating—Table of Expected Loss Ranges and State Hazard Group Differentials Methodology	2014	2014	Eliminated starting 2019 as result of R-1414
	Retrospective Rating—Table of Expense Ratios Methodology	2004	1998	as necessary
	Retrospective Rating—Tax Multipliers Methodology	2014	2014	10 years
Legislative Analysis	Annuity Values	2012	2013	as indicated by pension table changes
	Distributions Underlying Indemnity Benefit Change Impact Template	2017	2018	5-7 years
	Standard Wage Distribution	**2009**	**2009**	**10 years**
	Temporary Total Duration Table	2018	2018	7-10 years

Bold entries represent items on the Work Plan. These items are currently in progress or will be started soon. Highlighted entries are changes from the prior schedule. Items with strikethrough format are proposed to be removed from the schedule.

ACT-19-04 Legislative Analysis—Closed Drug Formularies: Initial Impacts From Two States

Background

Two states—Arizona and Tennessee—have recently adopted closed prescription drug formularies. Data from NCCI's Medical Data Call is available to analyze the initial effects of the formulary in these states.

Discussion

Staff will present background information and discuss the relevant statistics and metrics used to analyze the impact of these closed formularies in Arizona and Tennessee.

Requested Committee Input

None. This is an informational item.

Post-Reform Analysis of Closed Drug Formulary Implementations

Presented by:

Paul Hendrick, FCAS, MAAA

Actuarial Consultant

NCCI Actuarial Committee Meeting
August 7, 2019
Web Teleconference

Agenda

- Background and Key Findings
- Tennessee Experience
- Arizona Experience
- Conclusion

Committee members and meeting participants are prohibited from discussing any matter pertaining specifically and directly to rates or loss costs in any particular state or states.

Background

Background

- The Official Disability Guidelines (ODG) formulary divides drugs into two categories:
  - "N"-drugs – require prior authorization
  - "Y"-drugs – do not require prior authorization

- First adopted in Texas in 2011
  - Dramatic reduction in N-drug utilization
  - Results studied extensively by TX Dept. of Insurance (and NCCI)

- Adopted by Arizona and Tennessee in late 2016

Key Findings

- Prescription drug utilization decreased across *all categories* of drugs throughout the time period studied
- N-drug utilization after formulary adoption decreased at a rate of approximately 7% to 14% beyond decreases in nonformulary states
- However, the formulary had limited impact on opioids – most opioids in WC are already Y-drugs
- A dramatic decrease in topical and compound drug utilization was observed in Tennessee
- An analysis of a mature claim cohort found no evidence of impacts on nonprescription medical services

Research Approach

- WC prescription drug utilization was *already* decreasing across most types of drugs countrywide
- Research focused on whether the formulary *accelerated* the rate of decrease in N-drug use
- Used Fisher price and quantity indices to track prescription costs before and after implementation
- Analyzed a cohort of mature claims to look for changes in services other than prescription drugs

Benchmark Prescription Drug Comparisons

- TN and AZ N-drug utilization is compared to:
  - States with similar prescribing patterns (HI, MD, NM, NV, and VA)
    - Scripts and prescription payments per active claim
    - Milligrams of Morphine Equivalent (MME) consumption per active claim
    - N-drug share of scripts and prescription payments
  - All states without a mandatory formulary at any time during the study period
- N-drug utilization is compared with Y-drug utilization
- Pre-reform to post-reform changes were compared with trends in the prior (baseline) year

Study Timelines

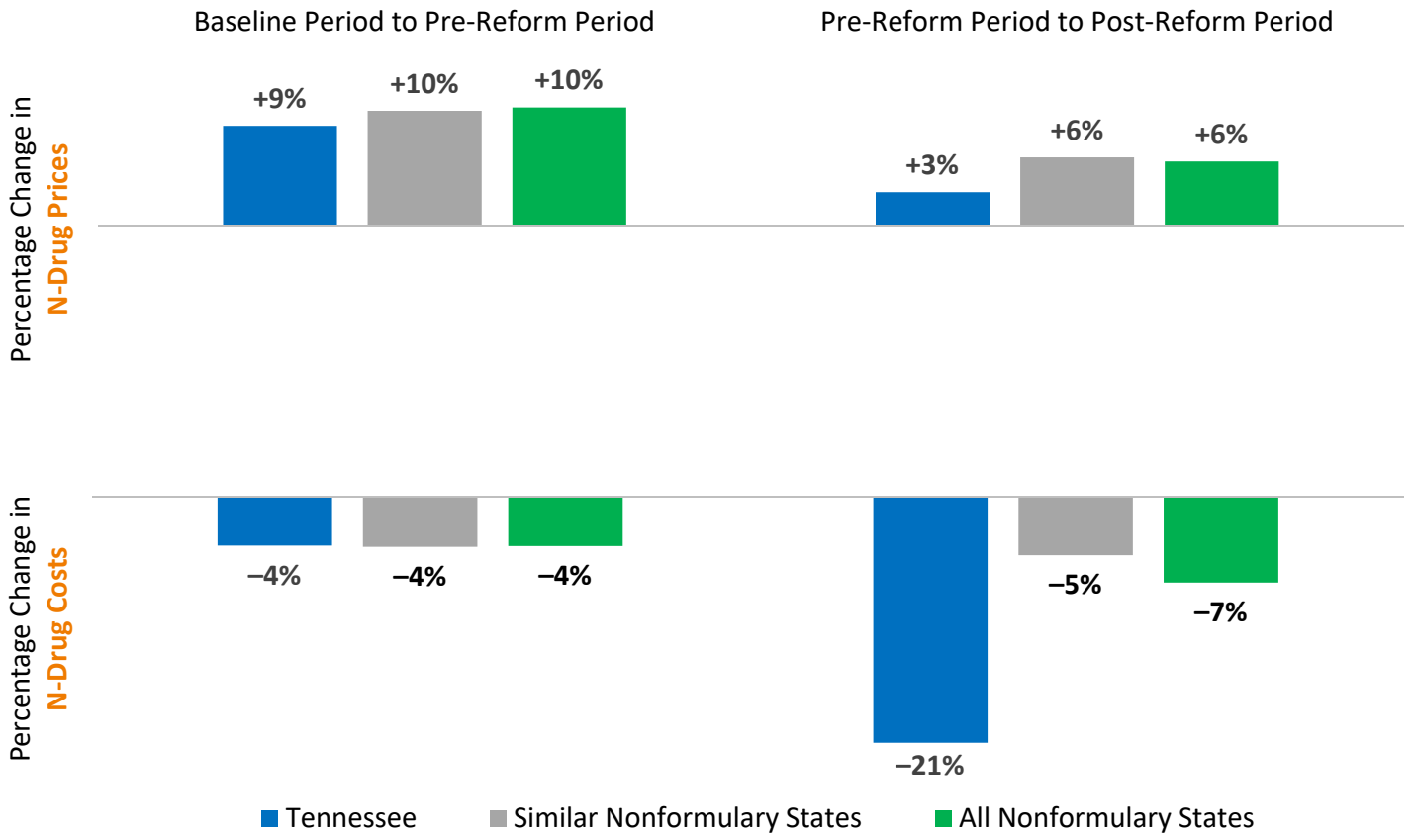
Tennessee:

Arizona:

Note: Formulary only applied to new prescriptions in Tennessee during the interim period.

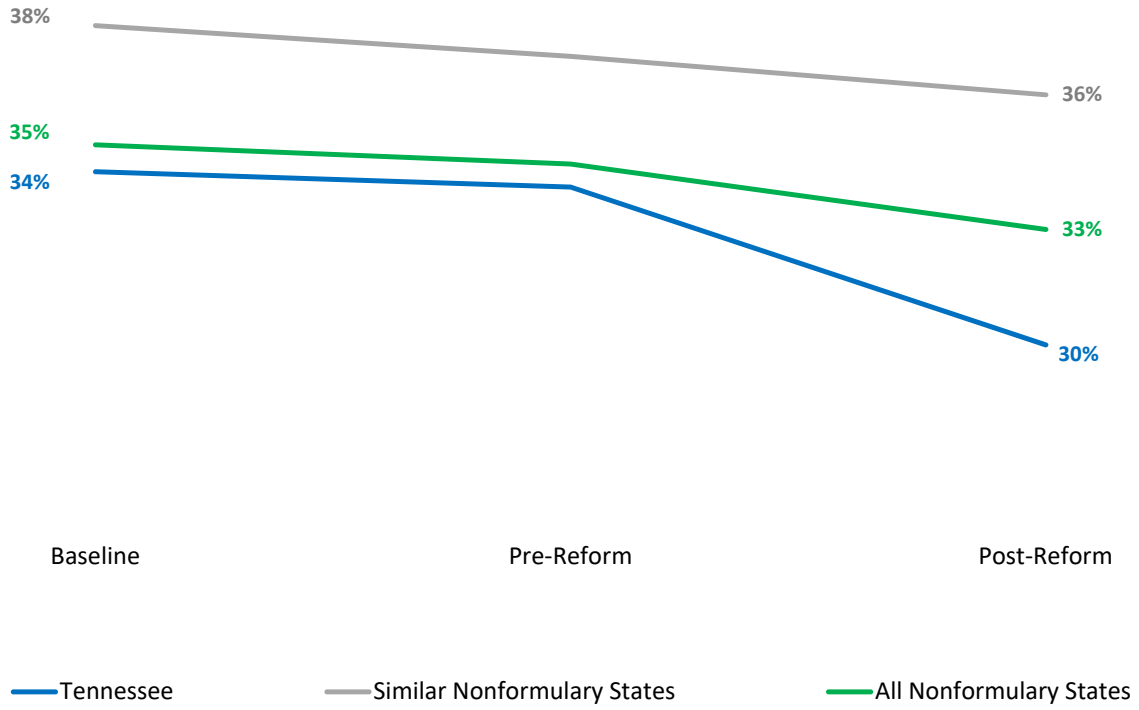
Tennessee Experience

N-Drug Costs Declined In Tennessee



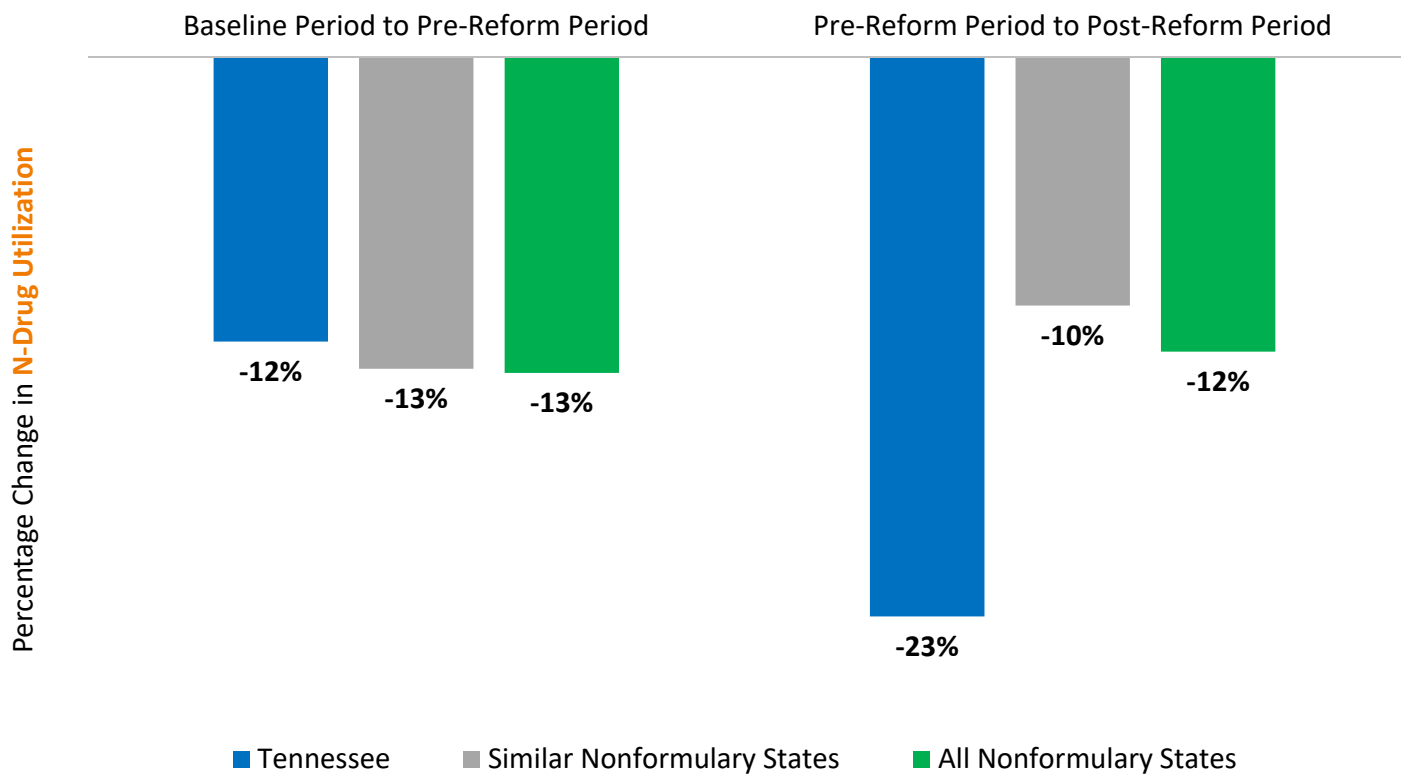
Source: NCCI's Medical Data Call

N-Drug Share of Prescription Costs Declined Slightly in Tennessee



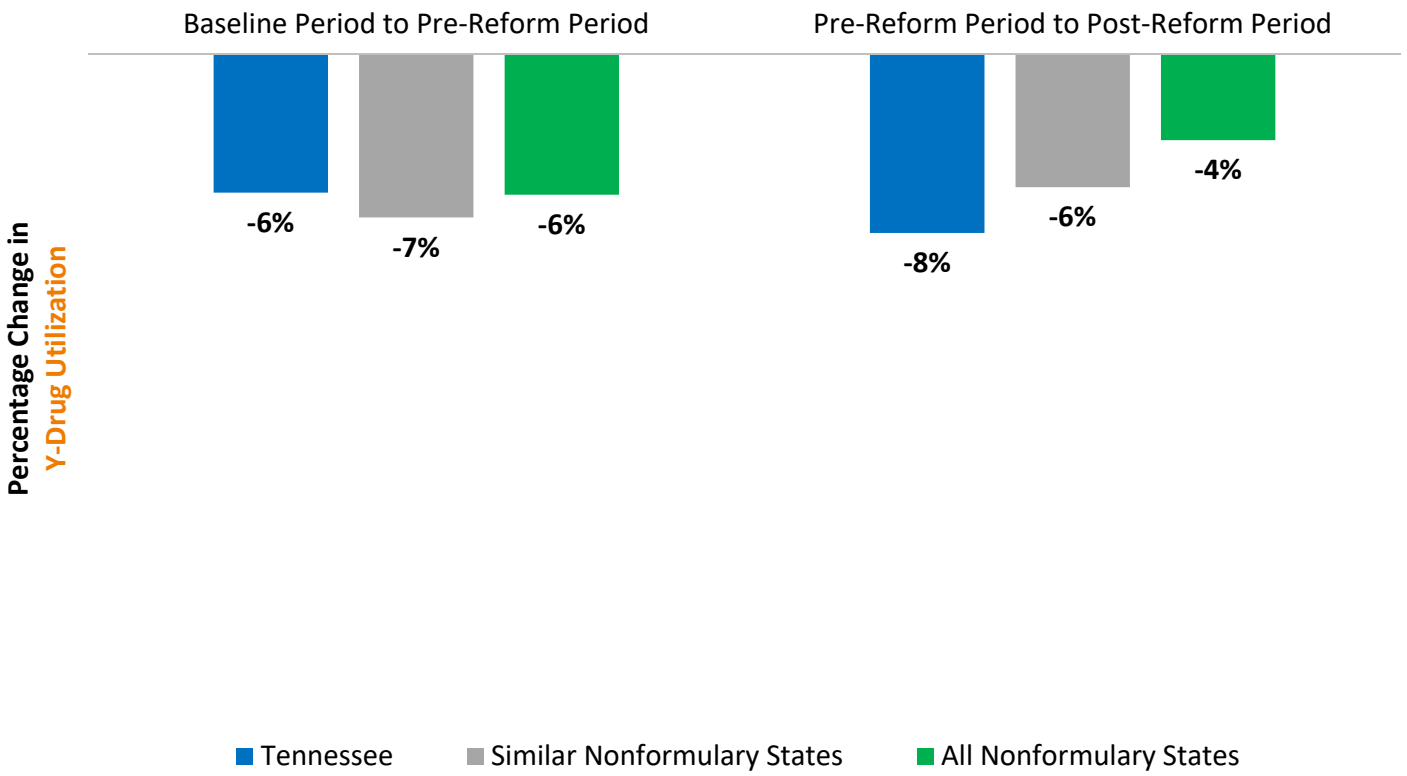
Source: NCCI's Medical Data Call

N-Drug Utilization Drops in Tennessee



Source: NCCI's Medical Data Call

Y-Drug Utilization Decreases More Slowly



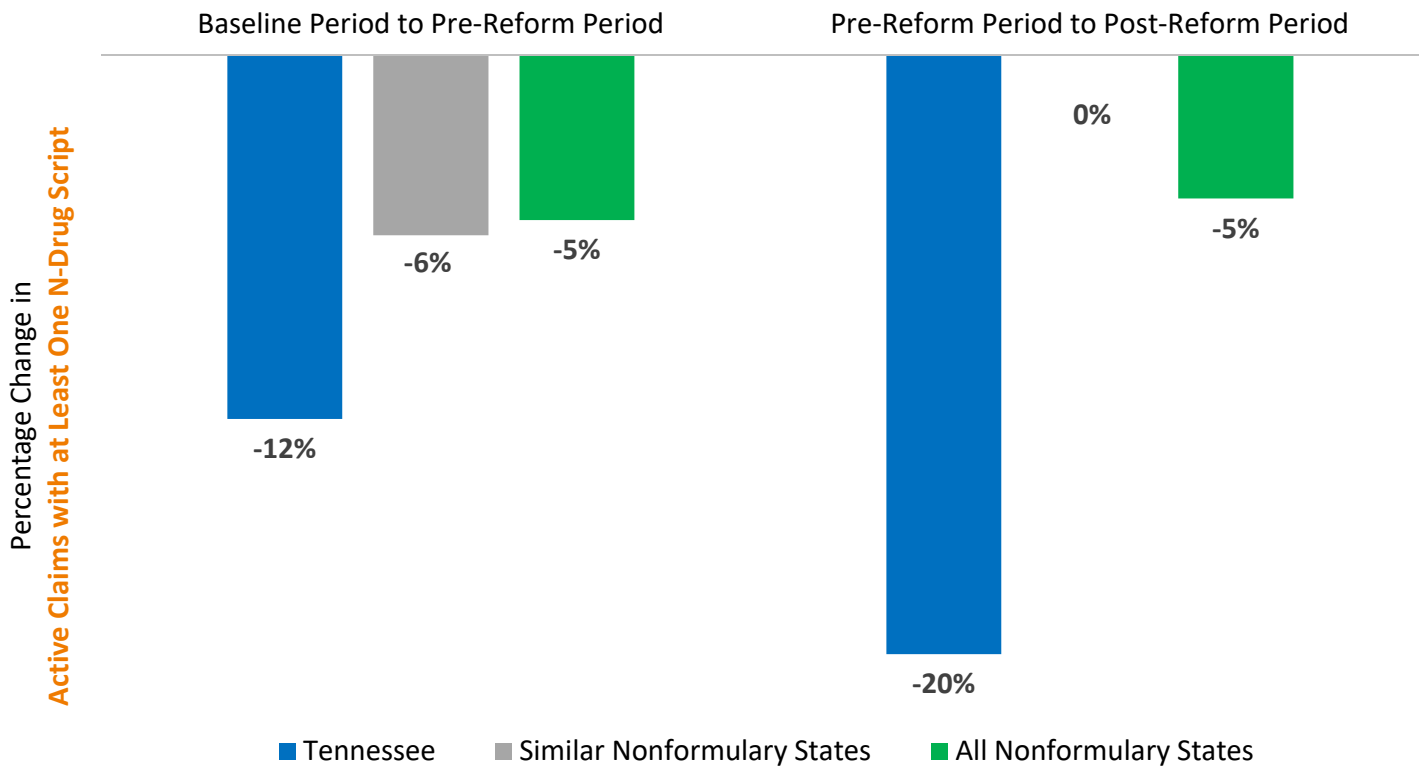
Utilization for N-drugs and Y-drugs measured by units per active claim.
Source: NCCI's Medical Data Call

Components of Utilization

Drug utilization can change in three ways:

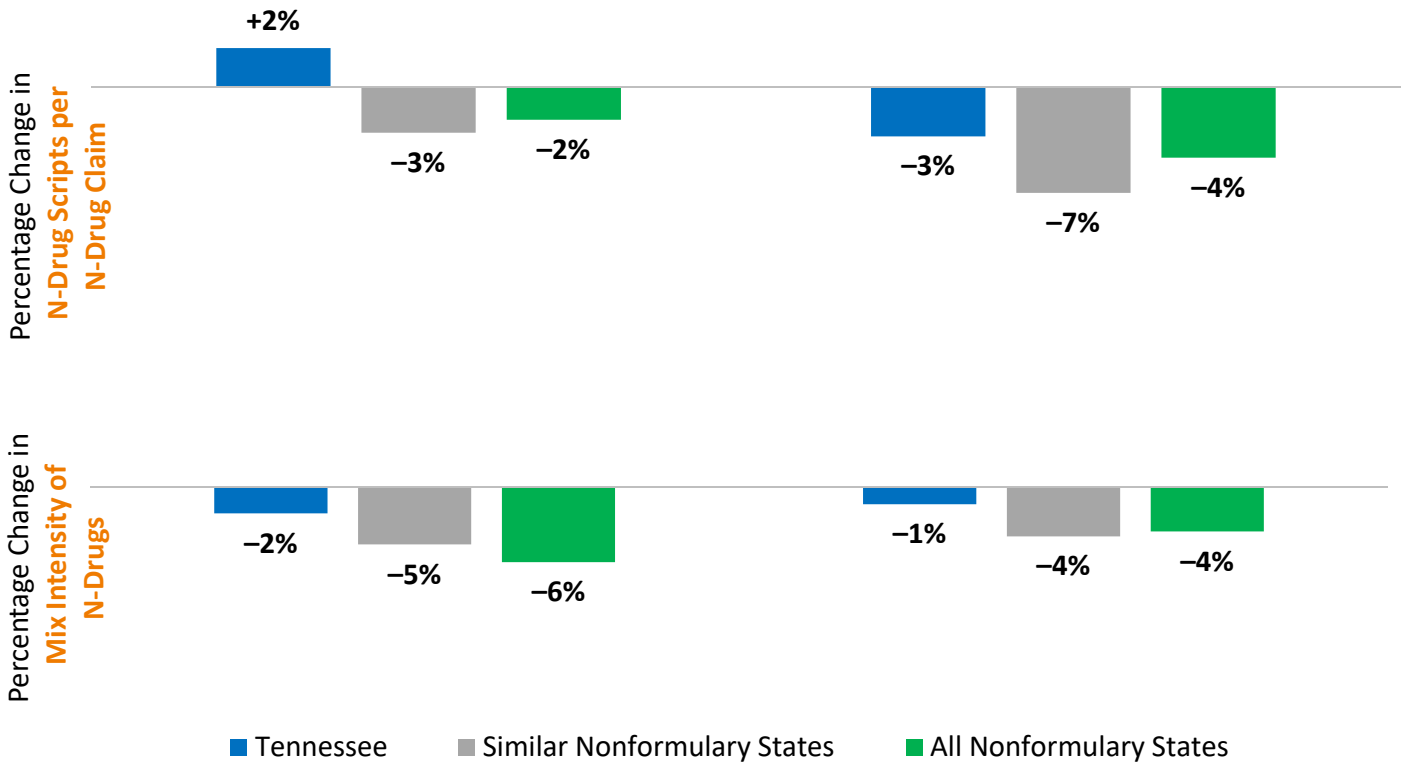
- Changes in the number of active claims receiving at least one script
- Changes in the average number of scripts for claims with at least one script
- Shifts within the mix of drugs prescribed

Active Claims with an N-Drug Script Dropped



Source: NCCI's Medical Data Call

Other Utilization Components Show Less Effect



Source: NCCI's Medical Data Call

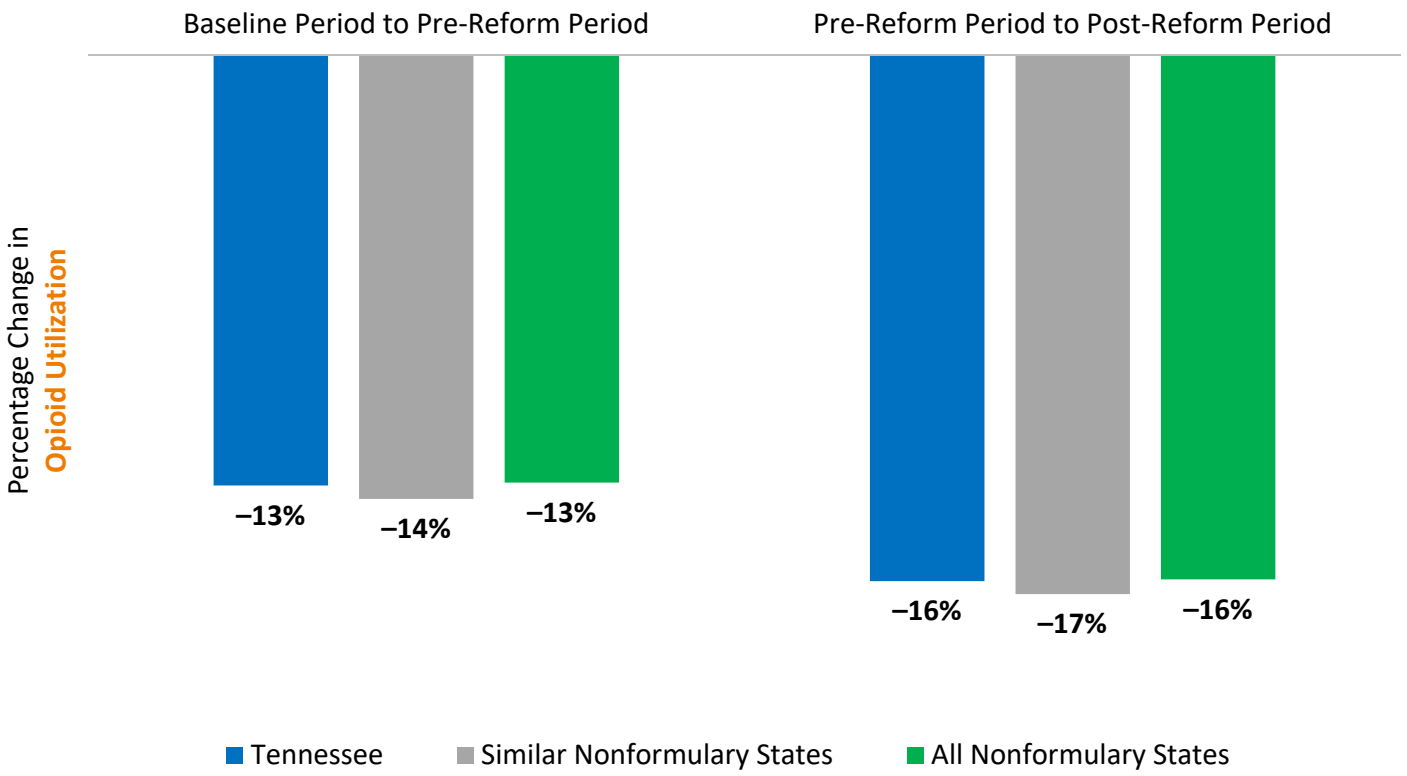
Most Opioids Were Y-Drugs

- Top four opioids in both AZ and TN:
  - Hydrocodone Bitartrate-Acetaminophen (Vicodin®)
  - Oxycodone HCl-Acetaminophen (Percocet®)
  - Tramadol HCl (Ultram®)
  - Oxycodone HCl (Oxycontin®)

- All four are *Y-drugs*

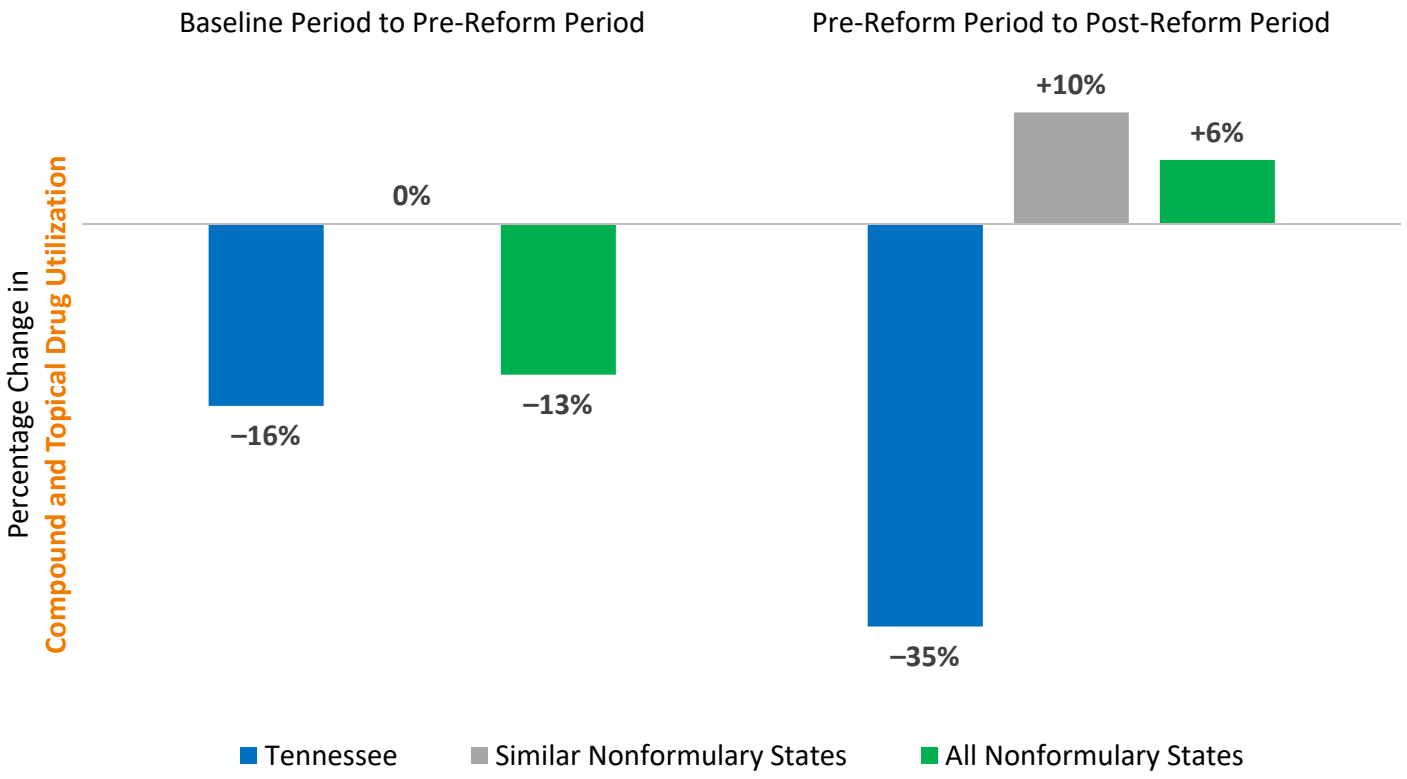
- In total, around 80% of opioid scripts were Y-drugs pre-reform

TN Opioid Utilization Shows No Apparent Impact



Utilization for opioids measured by Milligrams of Morphine Equivalent (MME) per active claim.
Source: NCCI's Medical Data Call

Compound and Topical Drugs Show a Large Impact in TN



Utilization for compound and topical drugs measured by transactions per active claim.
Source: NCCI's Medical Data Call

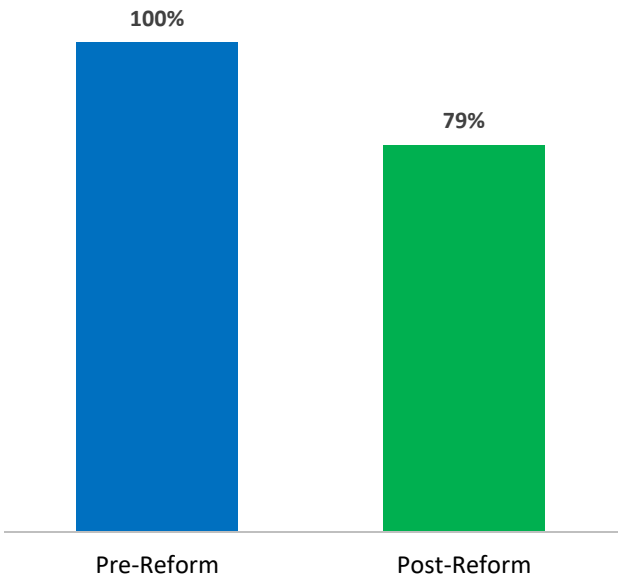
Cohort Analysis

- Analysis so far does not control for several factors:
  - Average claim maturity and claim settlement patterns
  - Mix and severity of injuries
  - Legislative changes to benefit levels or compensability

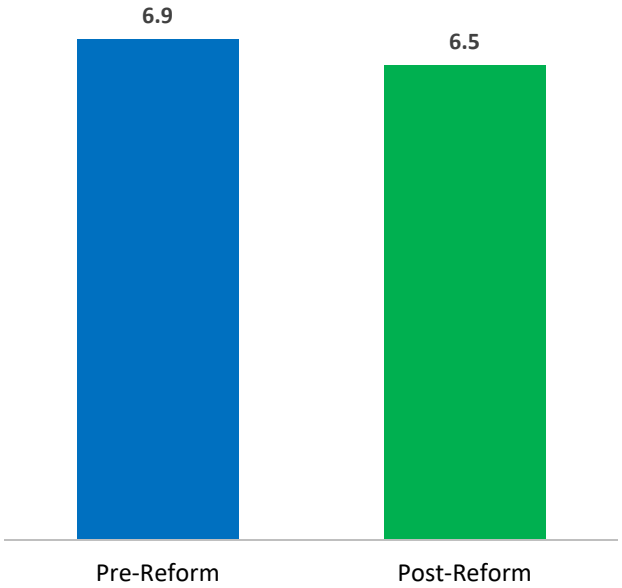
- So, we also studied a single cohort of claims in each state
  - Accident Years 2005-2009
  - Receiving medical services throughout study period
  - Claims with an N-drug script in the pre-reform period

TN Cohort N-Drug Utilization Decreased

Share of Cohort Claims
Receiving at Least One N-Drug in TN



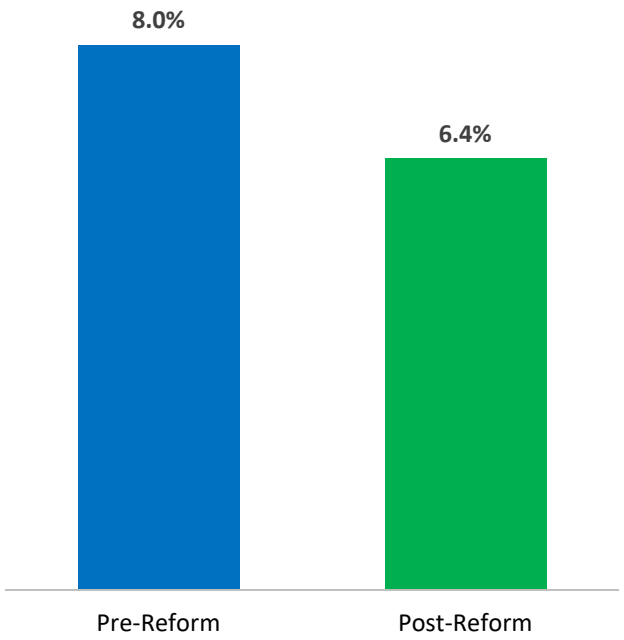
Average Number of N-Drug Scripts
per Claim Receiving at Least One N-Drug in TN



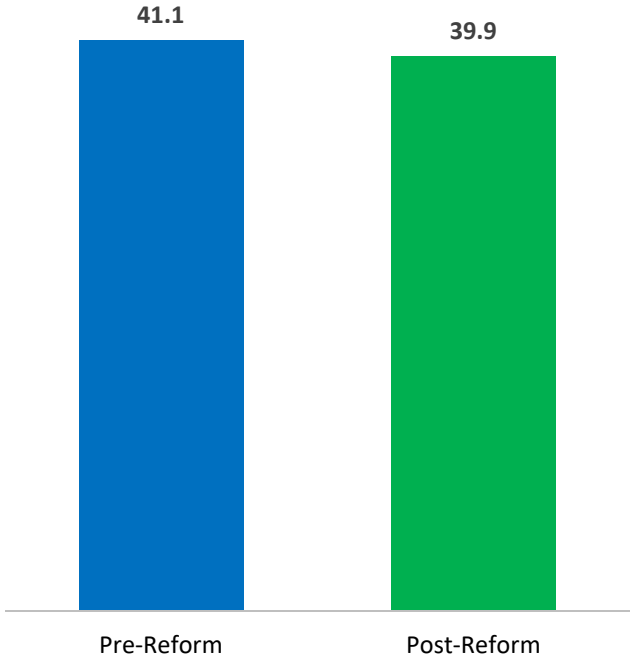
Source: NCCI's Medical Data Call

TN Cohort Also Used Less Physical Medicine

Share of Cohort Claims
Receiving Physical Medicine Services in TN



Average Physical Medicine WCRPs
per Claim Receiving Physical Medicine Services in TN

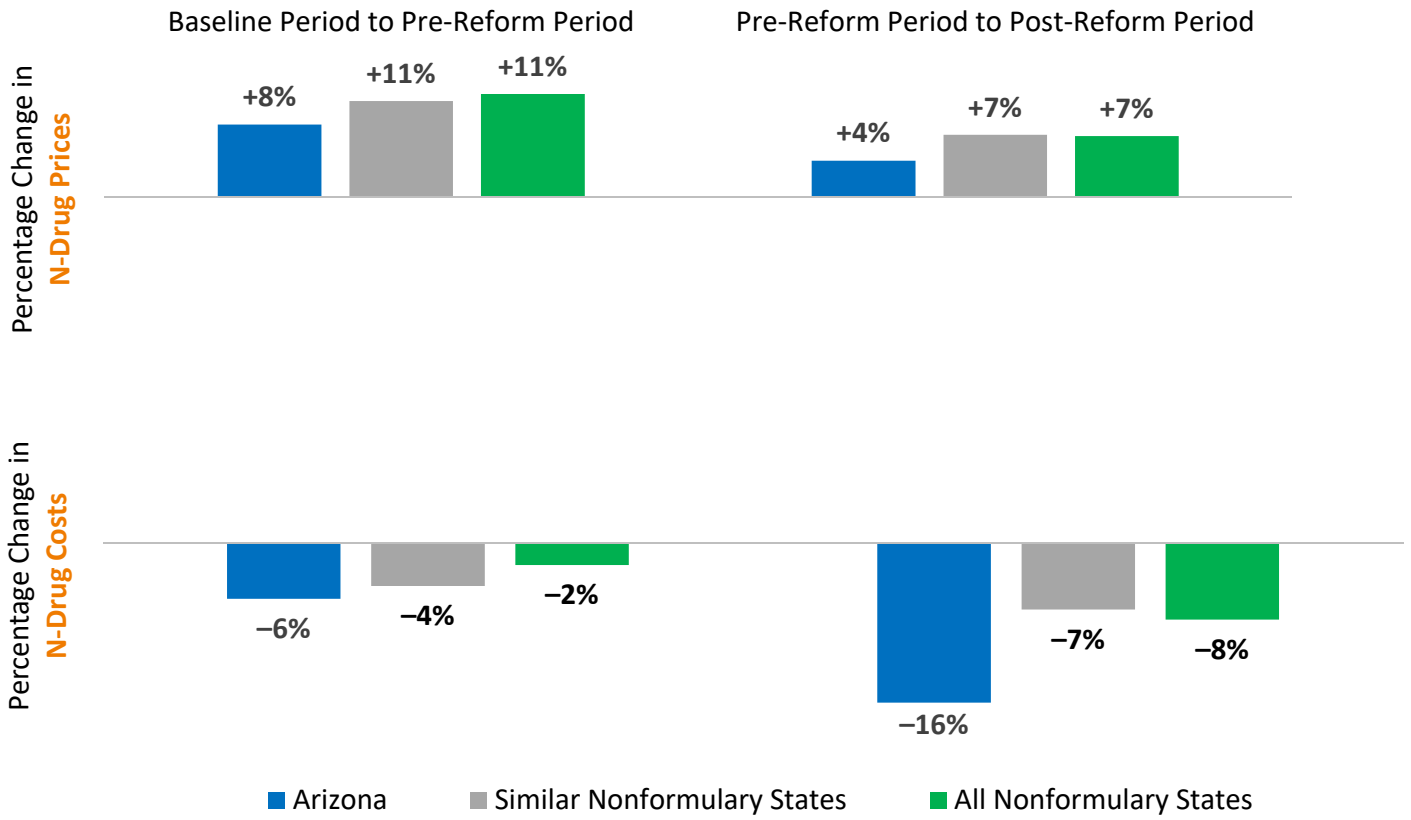


Note: WC Relative Prices (WCRPs) represent the units of service adjusted to reflect the relative amount of effort and complexity associated with each service in a WC setting.

Source: NCCI's Medical Data Call

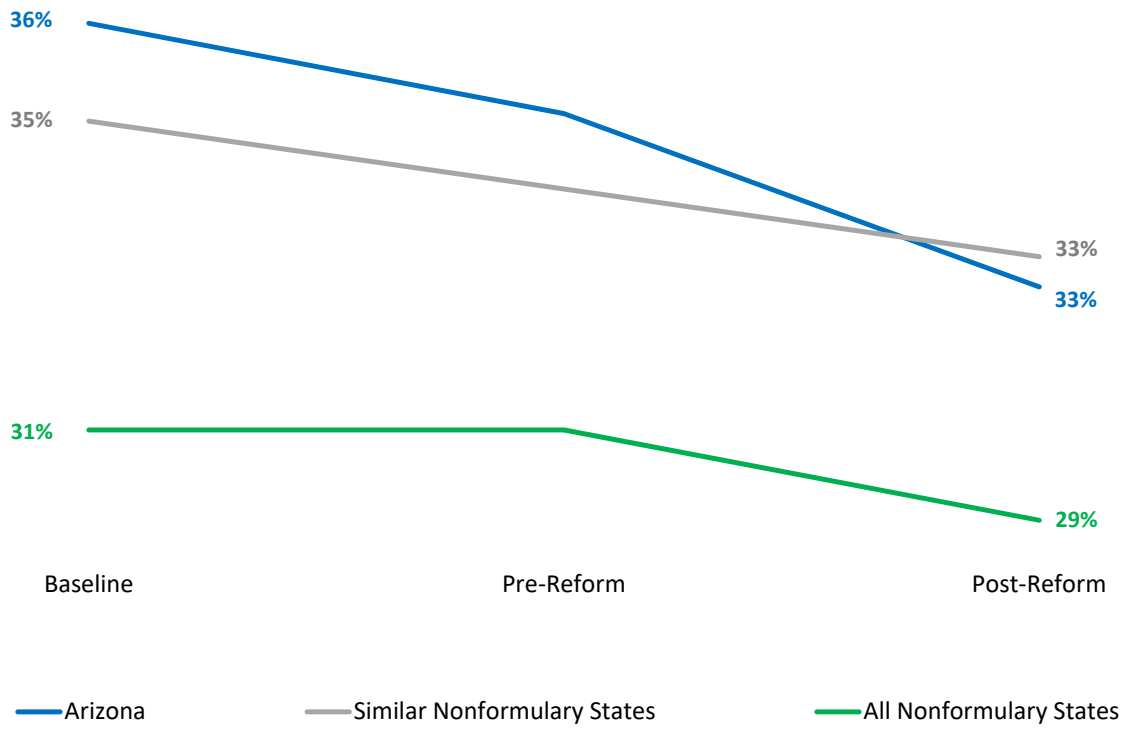
Arizona Experience

N-Drug Costs Declined In Arizona



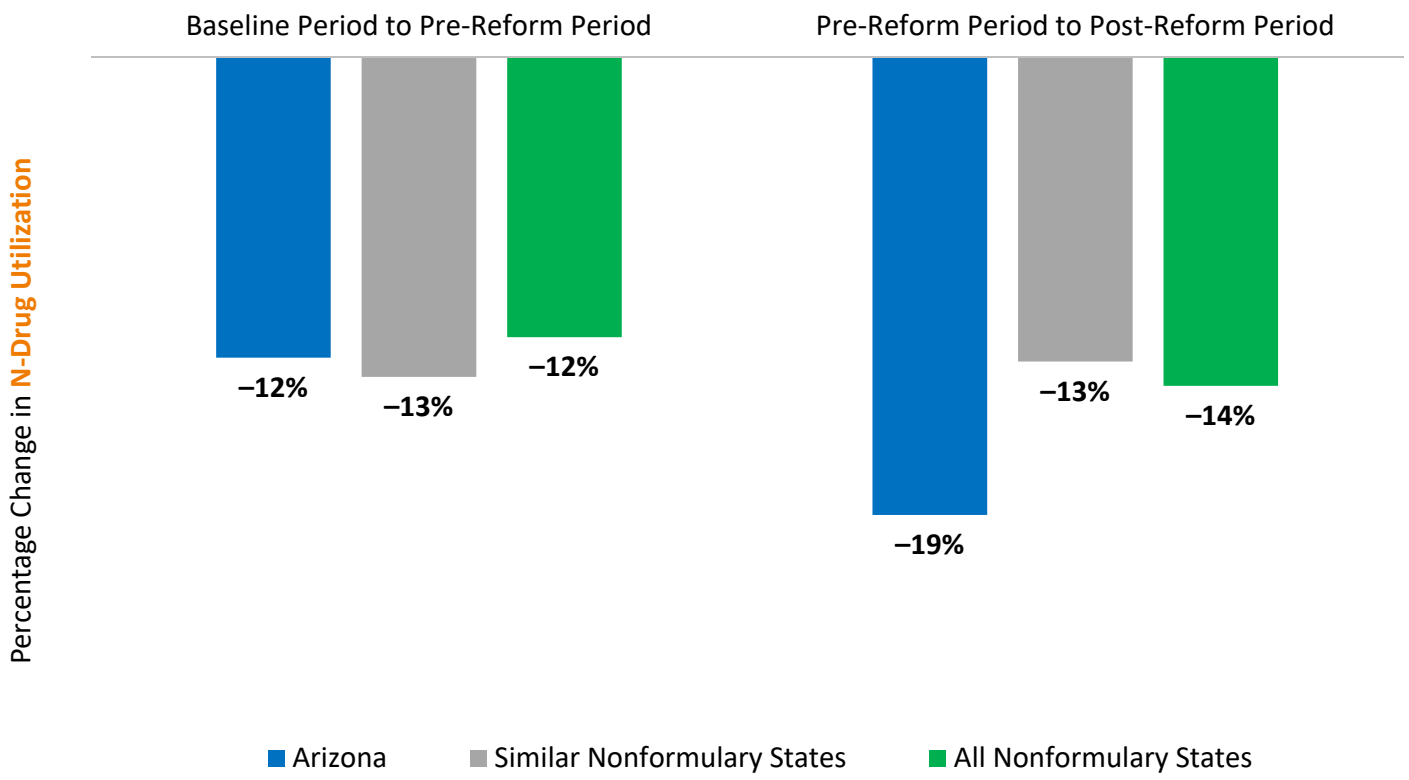
Source: NCCI's Medical Data Call

N-Drug Share of Prescription Costs Declined Slightly in Arizona



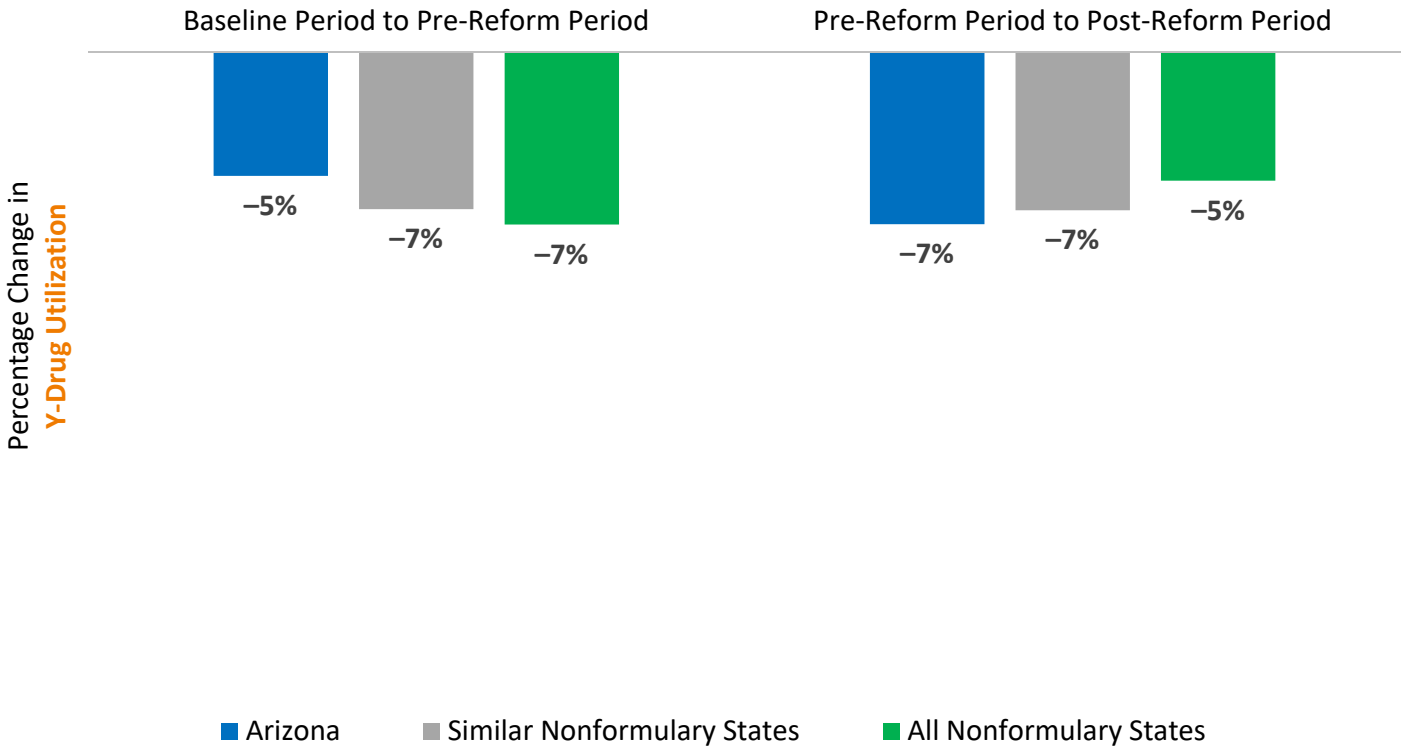
Source: NCCI's Medical Data Call

N-Drug Utilization Drops in Arizona



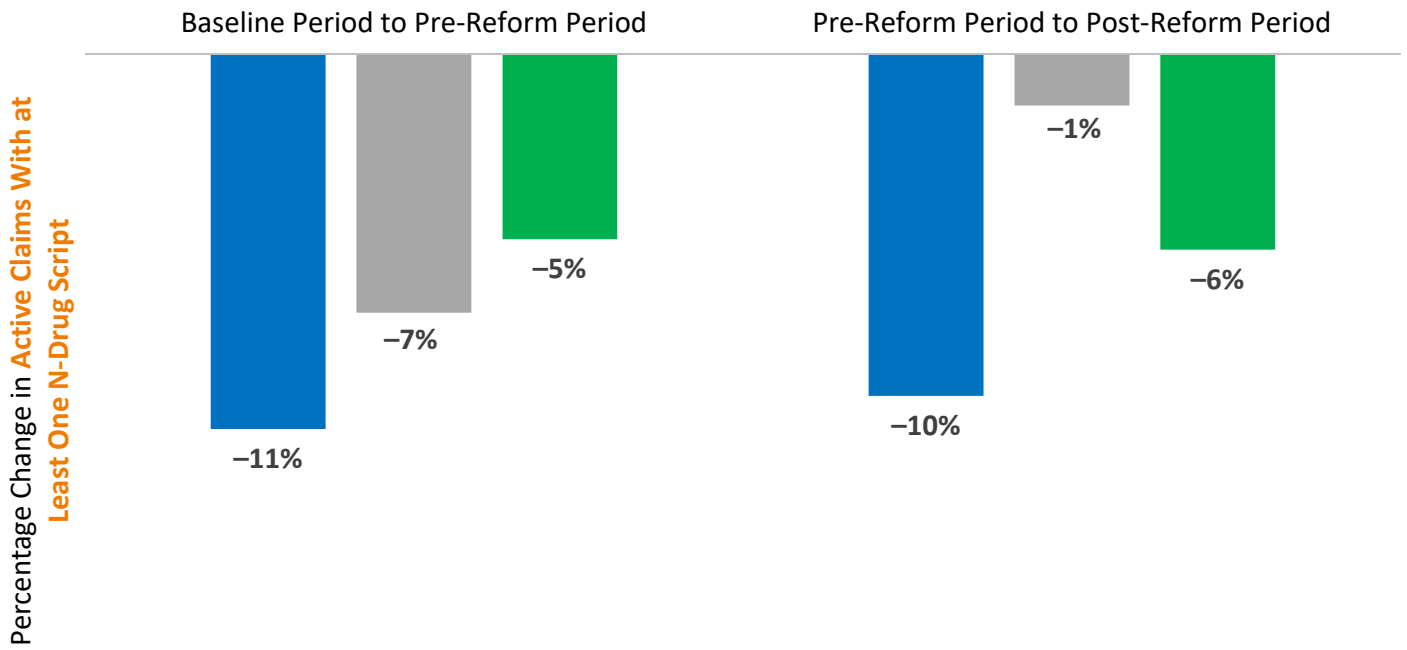
Source: NCCI's Medical Data Call

Y-Drug Utilization Decreases More Slowly



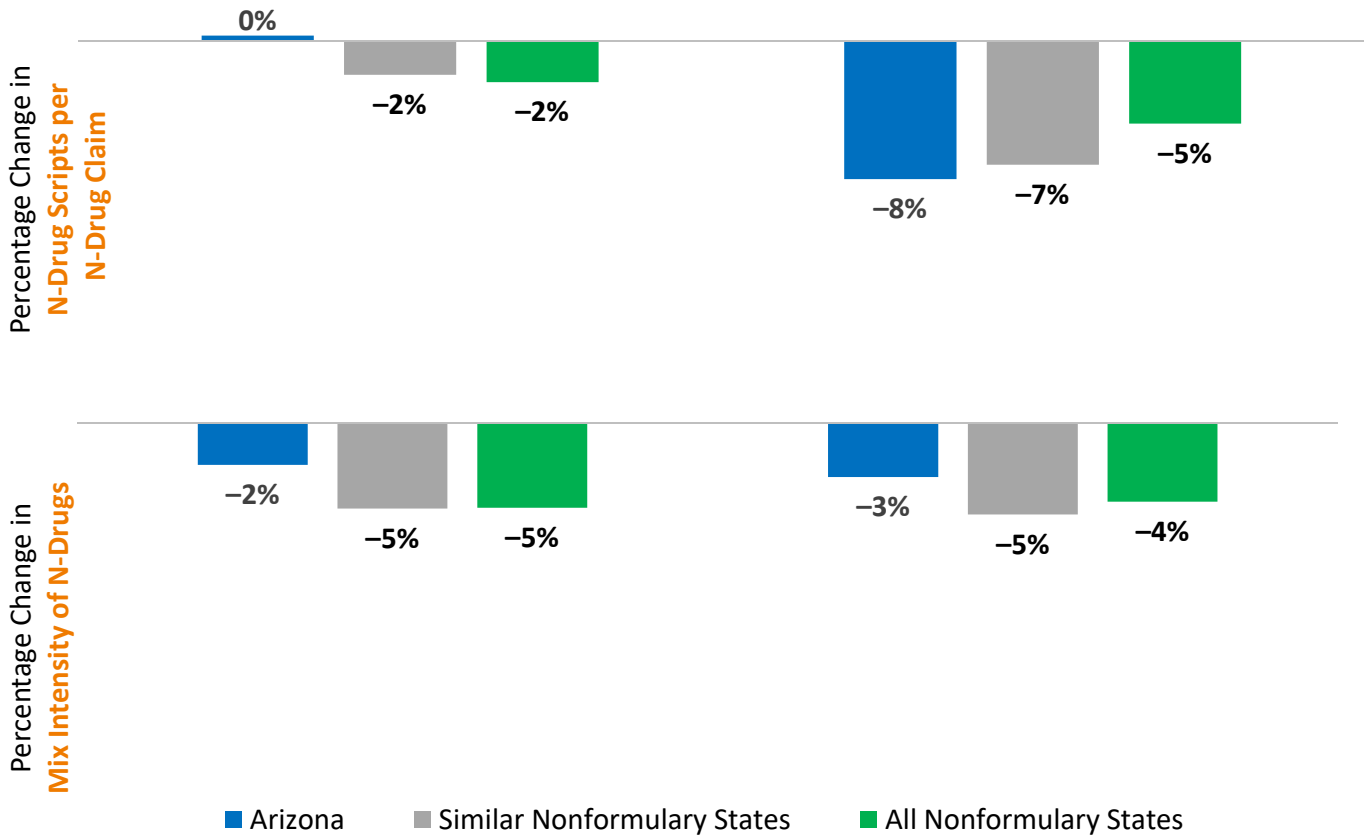
Utilization for N-drugs and Y-drugs measured by units per active claim.
Source: NCCI's Medical Data Call

Active Claims with an N-Drug Script Decrease at Similar Rates



Source: NCCI's Medical Data Call

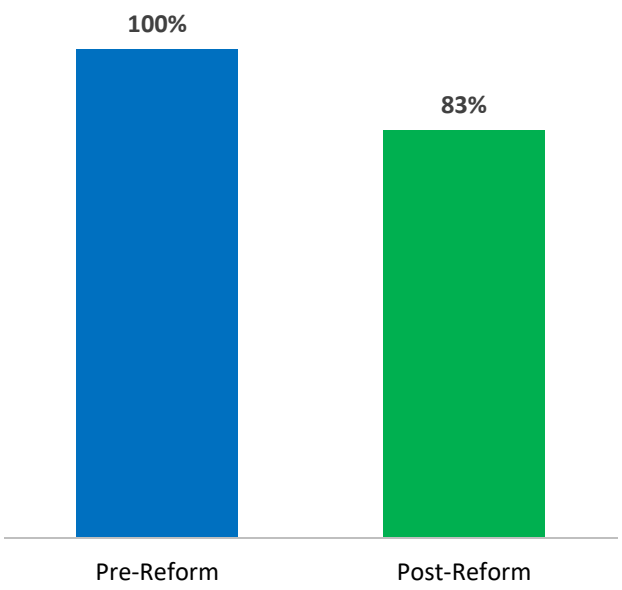
N-Drug Scripts per Claim Decreased in AZ



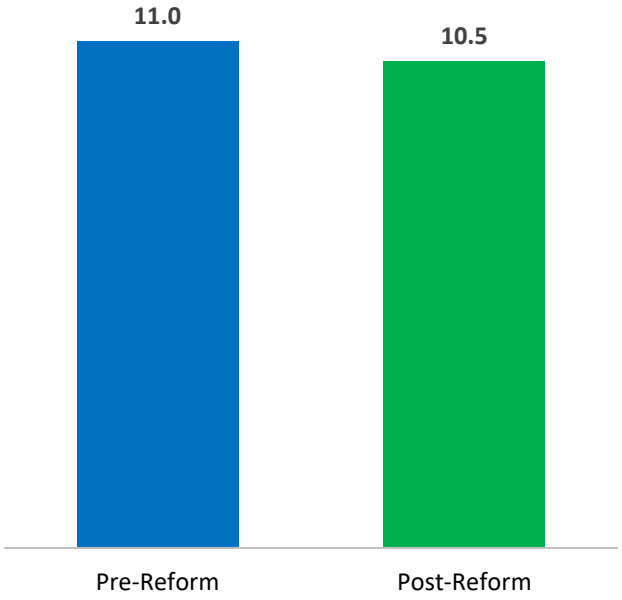
Source: NCCI's Medical Data Call

AZ Cohort N-Drug Utilization Decreased

Share of Cohort Claims
Receiving at Least One N-Drug in AZ



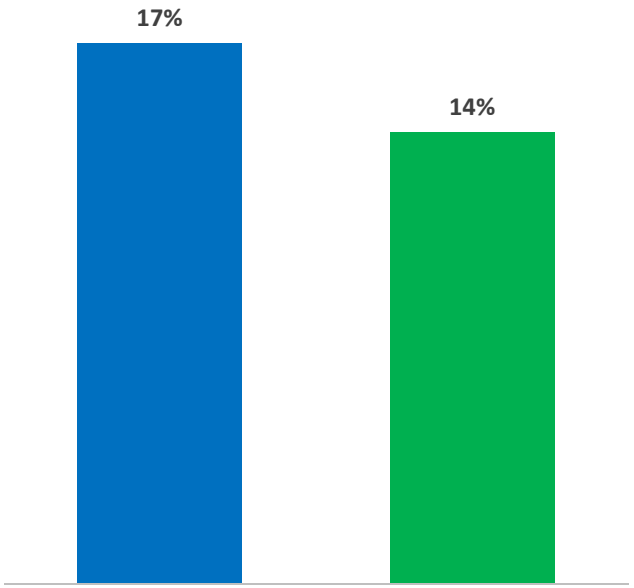
Average Number of N-Drug Scripts
per Claim Receiving at Least One N-Drug



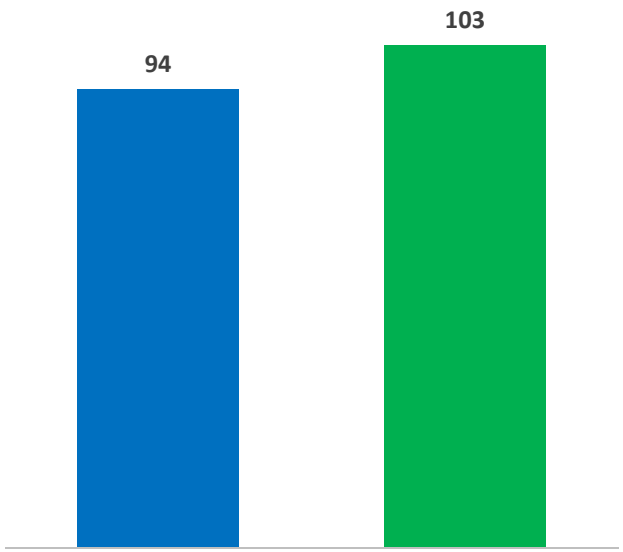
Source: NCCI's Medical Data Call

Arizona Physical Medicine Usage Was Flat

Share of Cohort Claims
Receiving Physical Medicine Services in AZ



Average Physical Medicine WCRPs
per Claim Receiving Physical Medicine Services in AZ



Note: WC Relative Prices (WCRPs) represent the units of service adjusted to reflect the relative amount of effort and complexity associated with each service in a WC setting.

Source: NCCI's Medical Data Call

Conclusion

Utilization Trends – Summary

Tennessee Observations	
Rate of Change in TN N-Drug Utilization, Pre-Reform	–11.8%
Rate of Change in TN Y-Drug Utilization, Post-Reform	–7.6%
Rate of Change in Similar State N-Drug Utilization, Post-Reform	–10.3%
Rate of Change in TN N-Drug Utilization, Post-Reform	**–23.2%**

Arizona Observations	
Rate of Change in AZ N-Drug Utilization, Pre-Reform	–12.5%
Rate of Change in AZ Y-Drug Utilization, Post-Reform	–7.1%
Rate of Change in Similar State N-Drug Utilization, Post-Reform	–12.6%
Rate of Change in AZ N-Drug Utilization, Post-Reform	**–19.0%**

Some Reasons Why Results Might Differ from Texas?

- Our study looked at immediate impacts – longer term impacts are likely to ultimately emerge
- Carriers have increased usage of *other* drug cost containment measures (e.g. pharmacy benefit managers, provider networks, etc.)
- Greater awareness of N-drug and opioid drawbacks among all stakeholders
- Incomplete application of the formulary in Arizona