ANALYSIS OF ALTERNATIVES TO THE NORTH CAROLINA AMBULATORY SURGICAL CENTER FEE SCHEDULE PROPOSED TO BE EFFECTIVE JANUARY 1, 2017

NCCI estimates that the fee schedule alternatives for Ambulatory Surgical Center (ASC) services would result in an overall impact between -0.4% (-$8.0M[1]) and +1.1% (+$21.0M) on North Carolina workers compensation system costs, if adopted.

The following table summarizes the alternatives and includes the estimated impacts.

Maximum Reimbursement for ASC	(A) Impact on ASC Services		(B) ASC Share of Medical Costs	(C) Impact On Medical Costs (A) x (B)		(D) Medical Costs as % of Overall Workers Compensation Benefit Costs in North Carolina	(E) Total Impact on Overall Workers Compensation System Costs in North Carolina (C) x (D)	
	Lower	Upper	(SY 2015)	Lower	Upper	(Eff. 1/1/2017)	Lower	Upper
150% of Medicare ASC Payment Rate	-17.0%	-12.9%	4.8%	-0.8%	-0.6%	48.3%	-0.4% (-$8.0M)	-0.3% (-$6.0M)
200% of Medicare ASC Payment Rate	-9.4%	-4.0%		-0.5%	-0.2%		-0.2% (-$4.0M)	-0.1% (-$1.9M)
235% of Medicare ASC Payment Rate	-4.1%	+3.7%		-0.2%	+0.2%		-0.1% (-$1.9M)	+0.1% (+$1.9M)
100% of Medicare Outpatient Prospective Payment System (OPPS)	-12.2%	-6.0%		-0.6%	-0.3%		-0.3% (-$6.0M)	-0.1% (-$1.9M)
150% of Medicare OPPS	+2.8%	+17.7%		+0.1%	+0.8%		0.0% ($0.0M)	+0.4% (+$8.0M)
200% of Medicare OPPS	+25.2%	+44.9%		+1.2%	+2.2%		+0.6% (+$11.0M)	+1.1% (+$21.0M)

Summary of Proposed Medical Fee Schedule Changes

The North Carolina Industrial Commission requested that NCCI estimate the impact on workers compensation system costs for the following fee schedule alternatives for institutional services provided by ASCs, proposed to be effective January 1, 2017:

- Maximum reimbursement rate of 150% of the 2016 Medicare ASC facility specific amount
- Maximum reimbursement rate of 200% of the 2016 Medicare ASC facility specific amount

[1] Overall system costs are based on NAIC Annual Statement data. The estimated dollar impact is the percentage impacts displayed multiplied by 2014 written premium of $1,888M from NAIC Annual Statement data for North Carolina. This figure includes self-insurance but does not include the policyholder retained portion of deductible policies, or adjustments for subsequent changes in premium levels. The use of premium as the basis for the dollar impact assumes that expenses and other premium adjustments will be affected proportionally to the change in benefit costs. The potential range of dollar impacts on overall system costs, excluding self-insurance, is estimated to be between $-6M and $+16M. The data on self-insurance is approximated using the National Academy of Social Insurance's August 2015 publication "Workers' Compensation: Benefits, Coverages, and Costs, 2013."

- Maximum reimbursement rate of 235% of the 2016 Medicare ASC facility specific amount
- Maximum reimbursement rate of 100% of the 2016 Medicare Outpatient facility specific amount
- Maximum reimbursement rate of 150% of the 2016 Medicare Outpatient facility specific amount
- Maximum reimbursement rate of 200% of the 2016 Medicare Outpatient facility specific amount.

Actuarial Analysis of Proposed Medical Fee Schedule Changes

NCCI's methodology to evaluate the impact of medical fee schedule changes includes three major steps:

1. Calculate the percentage change in maximum reimbursements
    a. Compare the prior and proposed maximum reimbursements by procedure code and determine the percentage change by procedure code.
    b. Calculate the weighted-average percentage change in maximum reimbursements for the fee schedule using observed payments by procedure code as weights.

2. Estimate the price level change as a result of the proposed fee schedule
    a. NCCI research by Frank Schmid and Nathan Lord (2013), "The Impact of Physician Fee Schedule Changes in Workers Compensation: Evidence from 31 States", suggests that a portion of a change in maximum reimbursements is realized on payments impacted by the change.
        i. In response to a fee schedule decrease, NCCI's research indicates that payments decline by approximately 50% of the fee schedule change.
        ii. In response to a fee schedule increase, NCCI's research indicates that payments increase by approximately 80% of the fee schedule change and the magnitude of the response depends on the relative difference between actual payments and fee schedule maximums (i.e. the price departure).
        The formula used to determine the percent realized for fee schedule increases is 80% x (1.10 + 1.20 x (price departure)).

3. Estimate the share of costs that are subject to the fee schedule
    a. The share is based on a combination of fields, such as procedure code, provider type, and place of service, as reported on the NCCI Medical Data Call, to categorize payments that are subject to the fee schedule.

In this analysis, NCCI relies primarily on two data sources:

- Detailed medical data underlying the calculations in this analysis are based on NCCI's Medical Data Call for North Carolina for Service Year 2015.

- The share of benefit costs attributed to medical benefits is based on NCCI's Financial Call data for North Carolina from the latest two policy years projected to the effective date of the benefit changes.

Ambulatory Surgical Center Fee Schedule

In North Carolina, payments for ASC services represent 4.8% of total medical payments. NCCI calculated the percentage change in maximums and the percentage change in reimbursements for ASC services to estimate upper and lower bound impacts due to the proposed fee schedule changes. The estimated upper and lower bounds are calculated as follows:

Estimated Upper Bound Impact

To calculate the percentage change in maximums for ASC services, NCCI calculates the percentage change in maximum allowable reimbursement (MAR) for each procedure code listed on the fee schedule. The overall change in maximums for ASC services is a weighted average of the percentage change in MAR (proposed MAR / prior MAR) by procedure code weighted by the observed payments by procedure code as reported on NCCI's Medical Data Call, for North Carolina for Service Year 2015. The prior and proposed maximums are calculated as follows:

Prior MAR

Prior MAR = [Multiplier x 2015 Medicare ASC Payment Rate – Multiple Procedure Discounts (if applicable)]

Where Multiplier = 220%

Proposed MAR – ASC-Based Alternatives

Proposed MAR = [Multiplier x 2016 Medicare ASC Payment Rate – Multiple Procedure Discounts (if applicable)]

Where Multiplier = 150%, 200%, or 235% in three distinct scenarios

Proposed MAR – Hospital Outpatient-Based Alternatives

Proposed MAR = [Multiplier x 2016 Medicare OPPS Payment Rate – Multiple Procedure Discounts (if applicable)]

Where Multiplier = 100%, 150% or 200% in three distinct scenarios

The overall weighted-average percentage change in maximums for each scenario for ASC services is then multiplied by the price realization factor[2]. The estimated impact on ASC costs is

[2] The price realization factor from a fee schedule increase is estimated according to the formula 80% x (1.10 + 1.20 x (price departure)). Due to the volatility observed in the price departure for ASC services, a reliable price departure could not be determined in North Carolina. In such a situation, the price realization factor for a fee schedule increase is assumed to be 80%. The price realization factor for a fee schedule decrease is expected to be 50%.

then multiplied by the percentage of medical costs attributed to ASC payments (4.8%) to arrive at the estimated impact on medical costs. The estimated impact on medical costs is then multiplied by the North Carolina percentage of benefit costs attributed to medical benefits (48.3%) to arrive at the estimated impact on overall workers compensation costs in North Carolina. The estimated impact on ASC services for each upper bound scenario is shown in the chart below.

Medicare Payment Schedule	Medicare Multiplier	Percentage Change in MAR	Price Realization Factor	Impact on ASC Service
ASC	150%	-25.8%	50%	-12.9%
	200%	-8.0%	50%	-4.0%
	235%	+4.6%	80%	+3.7%
Outpatient	100%	-11.9%	50%	-6.0%
	150%	+22.1%	80%	+17.7%
	200%	+56.1%	80%	+44.9%

Estimated Lower Bound Impact

To calculate the percentage change in reimbursements for ASC services, NCCI calculates the percentage change in reimbursements for each procedure code listed on the fee schedule. The overall change in reimbursements for ASC services is a weighted average of the percentage change in reimbursements by procedure code weighted by the observed payments by procedure code as reported on NCCI's Medical Data Call, for North Carolina for Service Year 2015. The prior and proposed reimbursements are calculated as follows:

Prior Reimbursement

Prior Reimbursement = Current Payments x Trend Factor

This calculation presumes that no Medicare-based fee schedule is currently in effect. The current payments by procedure code are obtained from NCCI's Medical Data Call for North Carolina for Service Year 2015. These payments are adjusted to reflect changes from past price levels to the price levels projected to be in effect on the effective date of the proposed fee schedule (January 1, 2017). The trend factor is based on the most recent available U.S hospital outpatient component of the medical consumer price index (MCPI) as shown below:

Service Year	Hospital Outpatient MCPI* Change from July of previous year
2013	4.8%
2014	4.5%
2015	3.9%
Average	4.4%

*Source: Bureau of Labor Statistics

A trend factor of 1.067 is applied to ASC payments for Service Year 2015 to determine the projected payments at the January 1, 2017 price level. The trend factor is calculated in two steps:

1. Estimate the yearly Hospital Outpatient MCPI, for services years 2015 and beyond, as the arithmetic three-year average of the observed Hospital Outpatient MCPI for 2013-2015. This average is equal to 4.4% (=[4.8% + 4.5% + 3.9%] / 3).
2. Raise the value above to the number of years elapsed from the midpoint of Service Year 2015 to the proposed effective date of the fee schedule, which is 1.5 years.

Therefore, the trend factor from July 1, 2015 to January 1, 2017 is estimated as $1.067 = 1.044^{1.5}$.

Proposed Reimbursement – ASC-Based Alternatives

Proposed Reimbursement = [Multiplier x 2016 Medicare ASC Payment Rate – Multiple Procedure Discounts (if applicable)] x (1+ Price Departure)

Where Multiplier = 150%, 200%, or 235% in three distinct scenarios.
Price Departure is estimated to be -10%.

To estimate the proposed reimbursement effective January 1, 2017, NCCI compares trended payments to discounted fee schedule maximums. In general, NCCI observes that average prices paid are below fee schedule maximums. Based on a combination of actuarial judgment and observations of price departure in states that already have a fee schedule, a price departure of -10% was selected.

Packaged services are those services for which payment is packaged into payment for the associated primary service; therefore, there is no separate APC payment. Packaged services that are currently reimbursed separately are assumed to be included in the reimbursement for the primary service under the proposed fee schedule. Therefore, there is no separate proposed cost associated with packaged services. Payments for packaged services make up 6.3% of ASC costs subject to the fee schedule.

Proposed Reimbursement – Hospital Outpatient-Based Alternatives

Proposed Reimbursement = [Multiplier x 2016 Medicare OPPS Payment Rate – Multiple Procedure Discounts (if applicable)] x (1+ Price Departure)

Where Multiplier = 100%, 150% or 200% in three distinct scenarios.
Price Departure is estimated to be -10%.

The estimated impacts for the lower bound scenarios are calculated in an analogous manner to the estimated impacts for the upper bound scenarios. The estimated impact for each lower bound scenario is shown in the chart below.

Medicare Payment Schedule	Medicare Multiplier	Percentage Change in Reimbursement	Price Realization Factor	Impact on ASC Service
ASC	150%	-33.9%	50%	-17.0%
	200%	-18.8%	50%	-9.4%
	235%	-8.2%	50%	-4.1%
Outpatient	100%	-24.4%	50%	-12.2%
	150%	+3.5%	80%	+2.8%
	200%	+31.5%	80%	+25.2%