MEDICAL COST TRENDS
THEN AND NOW

BARRY LIPTON, FCAS, MAAA
PRACTICE LEADER AND SENIOR ACTUARY
NCCI
WC Average Medical Cost per Lost-Time Claim
Private Carriers and State Funds—NCCI States

$p$ Preliminary based on data valued as of 12/31/2016
Source: Severity: NCCI Financial Call data, developed to ultimate, excludes high-deductible policies; 1995–2015: Based on data through 12/31/2015
Includes all states where NCCI provides ratemaking services; WV is excluded through 2007

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WC Change in Medical Cost per Lost-Time Claim
Comparison to Change in Personal Health Care (PHC) Spending per Capita

Year
95-96 96-97 97-98 98-99 99-00 00-01 01-02 02-03 03-04 04-05 05-06 06-07 07-08 08-09 09-10 10-11 11-12 12-13 13-14 14-15
Medical Cost per Lost-Time Claim
PHC Spending per Capita

Annual Growth Rate (AGR)
WC: 9%
PHC: 6%

p Preliminary based on data valued as of 12/31/2016
Sources: Severity: NCCI Financial Call data, developed to ultimate, excludes high-deductible policies; Accident Years 1995–2015: Based on data through 12/31/2015
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WC Change in Medical Cost per Lost-Time Claim
Comparison to Change in Personal Health Care (PHC) Spending per Capita

- Medical Cost per Lost-Time Claim
- PHC Spending per Capita

AGR

<table>
<thead>
<tr>
<th>Year</th>
<th>WC: 6%</th>
<th>PHC: 5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995-96</td>
<td>7.7</td>
<td>5.4</td>
</tr>
<tr>
<td>1996-97</td>
<td>7.1</td>
<td>5.4</td>
</tr>
<tr>
<td>1997-98</td>
<td>6.5</td>
<td>5.4</td>
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<tr>
<td>1998-99</td>
<td>7.8</td>
<td>5.8</td>
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<tr>
<td>1999-00</td>
<td>5.8</td>
<td>5.4</td>
</tr>
<tr>
<td>2000-01</td>
<td>5.9</td>
<td>5.3</td>
</tr>
<tr>
<td>2001-02</td>
<td>5.3</td>
<td>4.4</td>
</tr>
<tr>
<td>2002-03</td>
<td>7.0</td>
<td>4.2</td>
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</table>

p Preliminary based on data valued as of 12/31/2016
Sources: Severity: NCCI Financial Call data, developed to ultimate, excludes high-deductible policies; Accident Years 1995–2015: Based on data through 12/31/2015
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WC Change in Medical Cost per Lost-Time Claim
Comparison to Change in Personal Health Care (PHC) Spending per Capita

<table>
<thead>
<tr>
<th>Year</th>
<th>WC AGR</th>
<th>PHC AGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995–2002</td>
<td>9%</td>
<td>6%</td>
</tr>
<tr>
<td>2002–2009</td>
<td>6%</td>
<td>5%</td>
</tr>
<tr>
<td>2009–2015</td>
<td>1%</td>
<td>3%</td>
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</tbody>
</table>

Medical Cost per Lost-Time Claim
PHC Spending per Capita

Preliminary based on data valued as of 12/31/2016
Sources: Severity: NCCI Financial Call data, developed to ultimate, excludes high-deductible policies; Accident Years 1995–2015: Based on data through 12/31/2015
Includes all states where NCCI provides ratemaking services; WV is excluded through 2007

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What were the drivers of the AY 2015 decline?
Physicians Contribute to the AY 2015 Medical Payments per Claim Decline
AY Payments Through 12 Months; Includes Medical-Only Claims, Does Not Include Case Reserves

NCCI analysis is based on Medical Data Call for medical services provided during the year of injury and paid within three months after the end of the year. For example, Accident Year 2013 includes payments reported by March 31, 2014, for services rendered in 2013 for claims with an accident date in 2013. An analysis is based on claims with at least one medical service during the accident year. Data includes the states where NCCI provides ratemaking services. Data used with permission.

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Utilization Drives the AY 2015 Decline in Physician Paid per Claim

Physician Price and Utilization Changes by Accident Year Valued at 12 Months

NCCI analysis is based on Medical Data Call for medical services provided during the year of injury and paid within three months after the end of the year. For example, Accident Year 2013 includes payments reported by March 31, 2014, for services rendered in 2013 for claims with an accident date in 2013. Analysis is based on claims—including Medical-Only claims—with at least one medical service during the accident year. Data includes the states where NCCI provides ratemaking services. Data used with permission.

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Why the mild growth of WC medical costs since AY 2009?
Drivers of Workers Compensation Medical Costs per Claim

- Provider Networks
- Fee Schedules
- Hospital Costs
- Drugs/Opioids
- Medicare Set-Asides
- New Medical Treatments
States With Physician Fee Schedules as of Year-End 1979
12 States in Total
States With Physician Fee Schedules as of Year-End 1999
40 States in Total
States With Physician Fee Schedules as of Year-End 2016
44 States in Total—33 of Which Have a Medicare-Based Schedule
Network Share of Physician Payments Slows Medical Cost Growth

Source: Calendar Years 1997–2004 period is based on sample data provided by carriers for 25 states. Calendar Years 2011–2015 is based on data carriers reporting Medical Data Call for 37 states for which NCCI provides ratemaking services, excluding Texas. Data includes Medical-Only claims. 2011–2015 shares are similar to shares shown when restricted to the carriers and states used for the analysis of Calendar Years 1997–2004.

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What contributed to the increase in hospital payments per claim?
WC Payments per Inpatient Stay and Outpatient Visit Are Rising

AY Payments Through 12 Months; Includes Medical-Only Claims, Does Not Include Case Reserves

NCCI analysis is based on Medical Data Call for medical services provided during the year of injury and paid within three months after the end of the year. For example, Accident Year 2013 includes payments reported by March 31, 2014, for services rendered in 2013 for claims with an accident date in 2013. Analysis is based on claims with at least one medical service during the accident year. Data includes the states where NCCI provides ratemaking services. Data used with permission.
Medicare Reimbursement Rate Changes Put Pressure on WC Prices

This slide shows how WC costs in states where NCCI provides ratemaking services would have changed if all WC payments were made according to the federal Medicare reimbursement schedules as published by the Centers for Medicare & Medicaid Services and the number and mix of medical services were held constant.

Source: NCCI analysis is based on Medical Data Call—including Medical-Only claims—and conversion factors and relative value units as published by the Centers for Medicare & Medicaid Services.

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What about Medicare Set-Asides (MSAs)?
Approved vs. Submitted MSA Gap Appears Steady Since 2013

Source: NCCI analysis of data provided by ExamWorks Clinical Solutions and PMSI Settlement Solutions, LLC, an entity of Optum, for MSAs completed between January 2010 and December 2015 for submissions to the Centers for Medicare & Medicaid Services between September 2009 and December 2015. Data includes District of Columbia and all states except North Dakota and Wyoming.

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Processing Time for MSAs in 2015 Lowest in Recent History

Average Processing Time in Days

Year in Which Determination Letter Was Received

Source: NCCI analysis of data provided by ExamWorks Clinical Solutions and PMSI Settlement Solutions, LLC, an entity of Optum, for MSAs completed between January 2010 and December 2015 for submissions to the Centers for Medicare & Medicaid Services between September 2009 and December 2015. Data includes District of Columbia and all states except North Dakota and Wyoming.

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Most physician fee schedules have been in place since 2000

Higher provider network penetration reaps benefits of system efficiencies

Recently, hospital costs have been rising faster than overall WC medical costs

Opioid utilization is declining

CMS processing time for MSAs has decreased

A myriad of new medical treatments are on the horizon
A look into the future
Into the Future

Medical treatment and practice will continue to change

Some new treatments will increase costs

But some new treatments will restore full functionality, enabling a full return to work

What does this mean for the concept of permanent disability?

NCCI will continue to track trends affecting workers compensation costs