RESEARCH BRIEF

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COVID-19's Impact on Medical Treatment in Workers Compensation—What to Measure

INTRODUCTION

NCCI is undertaking several activities to better understand the impacts that the COVID-19 pandemic is having on the workers compensation (WC) system. We continue to monitor the short-term and long-term effects as we collect and interpret relevant data.

In this article we share some of the measures or metrics we are monitoring. The first instance of relevant data available to us will come from NCCI's Medical Data Call. This data source will provide NCCI with a fresh glimpse at the wide-ranging direct and indirect impacts of the pandemic. These include the treatments of injured workers who were along the path to recovery, those who were injured during the public health emergency (PHE) period and subsequent phased-in reopening, and those who have received COVID-19 related medical services.

Over the next year, we will use several metrics to monitor the experience as it emerges. In a series of articles and tools that will be shared with the industry, we are looking to explore questions such as:

- Did some medical services get delayed, postponed, or eliminated?
- Did telemedicine effectively take flight? And if so, is that change taking hold?
- Did the intensity of medical services significantly change during the PHE period?
- What are some claim characteristics and what medical treatments have been afforded to injured workers who contracted COVID-19?

METRICS

While there is not any one metric alone that answers these questions, a group of metrics will help paint the picture of what has taken place during a particular time as we compare that to what we have observed historically.

EMERGENCY SERVICES

As we navigate these uncharted waters, some general healthcare statistics indicate a significant decrease in emergency department visits during the initial PHE period. The National Syndromic Surveillance Program of the Centers for Disease Control and Prevention (CDC) indicated approximately 42% fewer emergency department visits during the early PHE period (March 29 through April 25, 2020) compared with the corresponding period in 2019.[1]

[1] www.cdc.gov/nssp/covid-19-response.html

During the PHE period, a potential scenario could be that workers may be less likely or willing to go to a hospital emergency department, as they are fearful of contracting the virus. This could cause delays in administering critical treatment and may result in less-favorable outcomes. In a scenario where urgent care was not needed, there would potentially be some cost savings if injured workers sought treatment in clinical settings or virtually. While the effects of changes in emergency department visits will take some time to emerge, here are some relevant 2018 and 2019 measures based on NCCI's Medical Data Call:

- There were approximately 300 emergency service visits per 1,000 active WC claims, costing an average of $1,600
- The share of emergency room visits that involved life-threatening injuries was about 10%. Another 30% involved injuries that were high severity, but not life threatening. The remaining emergency room visits were for relatively less-serious injuries.

Some questions that we would like to explore are:

- What does emergency service experience look like in the second quarter of 2020?
- To what extent did the pandemic impact injured workers behaviors?
- What alternatives did employers provide?

PHYSICIAN SERVICES

One common medical encounter in WC is the physician office visit. Fair Health, an organization that provides healthcare costs and information, has reported a drop of 68% in professional services in April 2020 compared with April 2019, with significant variation across geographical areas and among medical specialties.[2] During the PHE period, several practices either closed or limited their patient encounters to either telemedicine or urgent care.[3] So, potentially fewer injured worker visits may have taken place during the PHE.

Once again, in a situation where an injured worker visits are critical to medical treatment plans, a delay in such visits could result in a compounding effect of delays and potentially less-favorable outcomes. On the other hand, if the visit was simply a routine check-in or for a prescription drug refill, it may have had less of an impact as long as the worker's medication needs were satisfied.

One measure of medical encounters to keep an eye on then, would be the number of office visits per active claim. Here is what we know about office visits in WC. From 2018 and 2019, NCCI's Medical Data Call shows that:

- Evaluation and management services accounted for roughly 10% of medical payments and 25% of payments for physician services
- Of these, about 90% took place in a nonfacility (typically a physician's office or clinic)

Going forward, we will study whether there have been fewer physician visits per active claim, and of those that did take place, what share were in a nonfacility. Furthermore, we understand that telehealth has rapidly expanded, so the proportion of visits that were conducted from an injured worker's home would be valuable to know. That will better help us understand the role that virtual health services played during the pandemic.

SURGERIES

Many healthcare industry observers state that elective surgeries during the PHE period have been deferred. To the extent that surgery was needed to get injured workers back to work, this could presumably extend the period that injured workers were on WC disability and potentially cause deterioration in their physical condition or produce less-favorable results from delayed surgery. In some cases, where alternative treatments were afforded, this may have had a positive result, rendering surgery unnecessary.

Thus, it is important to understand how many surgeries took place during the PHE period, and in the period after that, to evaluate those changes and their impact on injured workers. From historical experience in 2018 and 2019 we know:

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[2] "Healthcare Professionals and the Impact of COVID-19: A Comparative Study of Revenue and Utilization," June 2020, Fair Health, Inc.
[3] www.physiciansfoundation.org/wp-content/uploads/2020/08/20-1278-Merritt-Hawkins-2020-Physicians-Foundation-Survey.6.pdf

- There were about 85 major surgeries per 1,000 active claims performed in a facility
- Of these approximately 47% took place in a hospital outpatient setting, 40% in an ambulatory surgical center (ASC), and 13% required an inpatient stay

Monitoring the number of major surgeries taking place, and in what setting over the PHE period and thereafter, would be informative. It is also important to monitor the time between injury and major surgery and whether it has meaningfully changed.

PAIN MANAGEMENT AND MENTAL HEALTH

Prescribing patterns and other treatments addressing pain are particularly important in WC. To the extent that mental health factors resulting from social isolation during the PHE period may have exacerbated workers conditions, additional treatment may have been required. Furthermore, frontline workers, especially those in the medical field, could be exposed to harsh situational conditions that might result in a need to seek mental health treatments. So, monitoring the frequency of treatments addressing pain and mental health or behavioral services is useful to understand the impact of the pandemic.

- In 2018 and 2019, 1 out of 3 claims with at least one prescription used opioids at the rate of 140 Oxycodone Pill Equivalents (see glossary for definition) per year on average
- Furthermore, 1 out of 42 injured workers suffering from chronic pain received a behavioral or mental health service in 2018 or 2019

To the extent that there are circumstances where certain direct interventions requiring the presence of a physician or therapist were delayed, an increased pain management intervention may have been required. Monitoring various pain treatments, including the use of opioids, would be an important characteristic to study regarding the effects of the pandemic on injured workers.

CLAIMS WITH A COVID-19 DIAGNOSIS

According to the CDC's COVID Data Tracker,[4] as of September 30, 2020, more than 7.1 million people have contracted the COVID-19 virus in the United States, and over 205,000 have died.

Those who contracted the disease in the course of employment and filed a WC claim would be eligible for lost-time wage replacement and medical benefits when the claim is found to be compensable. For some workers, the virus may be asymptomatic, with no immediate medical treatment needed. Others may require limited treatment with no hospitalization, and, for more serious cases, the worker may need hospitalization. Furthermore, in the most serious cases, hospitalization may include some time in an intensive care unit.

Identifying the various treatment patterns by case severity is critical to understanding the characteristics of the disease, how it exhibits itself, and how workers regain their health and ability to function. We will monitor the different types of impacted workers and types of corresponding treatments they are afforded over time.

CONCLUSION

In the months to come, NCCI will offer observations regarding these emerging impacts on a quarterly basis, both from a multistate perspective and by individual jurisdiction. Look for this and other COVID-19-related information on NCCI's COVID-19 Resource Center at ncci.com/Articles/Pages/COVID-19.aspx in the near future.

[4] https://covid.cdc.gov/covid-data-tracker/#cases_totalcases

GLOSSARY

Active claim: A workers compensation claim for which there is at least one medical service provided during a specified time period.

Emergency room severity: There are five levels of emergency room visit severity, ranging from limited or minor problems reported with CPT[5] Code 99281 to life-threatening situations reported with CPT[5] Code 99285.

Major surgery: A medical service is classified as "surgical" if it falls within the surgical category as defined by the American Medical Association (AMA). A service is further classified as "major surgery" if it has a global follow-up period of 90 days as defined by the CDC and is not an injection.

Oxycodone Pill Equivalents (OPE): A standard unit for comparing opioid doses, equivalent to one 20 mg. oxycodone pill. This is also the equivalent of 30 Morphine Milligram Equivalents daily dose or MME as defined by the CDC.

Physician service: A term that refers to any professional medical service that is provided by a medical doctor, therapist, or other professional.

Service year: A loss accounting definition where experience is summarized by the calendar year in which a medical service was provided.

APPENDIX: DETAILED SET OF METRICS

- Distribution of medical payments by type of service—Physicians, Hospital Outpatient, Hospital Inpatient, ASC, and Others
- Distribution of physician payments and amount of services by AMA Service Category—Physical Medicine, Surgery, Evaluation and Management, Radiology, Anesthesia, General Medicine, and Others
- Amount of physician services per active claim by AMA Service Category using the workers compensation relative price index
- Medical number of encounters per active claim by type of service and selected physician categories
- Median time until first treatment (in days) for
  - Major surgery
  - Radiology
  - Physical and general medicine
  - Evaluation and management visit other than emergency
  - Hospital inpatient stays
  - Major surgery outpatient visits
  - ASC
- Average number of emergency service visits per 1,000 active claims
- Share of claims with at least one telehealth encounter
- Share of telehealth encounters and costs by AMA service category
- Distribution of drug prescriptions by opioid and nonopioid
- Average number of prescriptions per drug claim
- Share of drug claims with at least one opioid prescription
- Average number of opioid prescriptions per opioid claim
- Average opioid payment per opioid claim
- Average quarterly MME per opioid claim
- Share of claims with COVID-19 diagnosis
- Share of COVID-19 claims with hospitalization and length of associated hospital stays
- Share of COVID-19 claims with ICU and length of associated hospital stays
- Average medical cost of COVID-19 claims by type of claim

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