Usages of the Indemnity Data Call and the Importance of Quality

Key Takeaways

To gain a better understanding of:

- NCCI's need for high-quality Indemnity data to perform legislative pricing and research studies
- NCCI's Indemnity data validation approach
- Common quality topics impacting the Indemnity data

Chapter 1—Indemnity Data Call (IDC) Reporting Practices—End-User Perspective

End-User (Actuarial) Use Cases for IDC Data

- Analyzing Workers Compensation (WC) Legislation
- Research Support
- Ratemaking Research-Reference Information
- Provide additional value to stakeholders

Chapter 2—The Actuary's Perspective

Some Actuarial Uses of IDC Data

In the first half of 2024, IDC data was used to:

- Analyze bills affecting WC benefits
- Support projects improving ratemaking methods
- Provide ad hoc background reference information
- Publish research articles
- Create benchmarking products for the industry's benefit

How Do NCCI Actuaries Interact With IDC Data?

- Aggregation
  - Accident Year (quarterly)
  - Benefit Type Code (transactional)
  - And many more!
- Derivation
  - For example, hire date and birth date are reported elements
  - But tenure and age at injury are the items of interest
- Comparison
  - Among IDC data elements
  - Across NCCI data Calls

Chapter 3—Examples of Actuarial Use Cases

Use Case 1

Use Case 1: Legislation

State X wants to raise the maximum weekly temporary total disability (Benefit Type Code 05) benefit from $1,000 per week to $1,200 per week. Stakeholders have reached out to NCCI to understand the possible impact on system costs.

What might an NCCI actuary need to know?

Use Case 1: Legislation—Actuarial Questions
- How many claims have temporary total (Benefit Type Code 05) benefits?
- What share of benefit payments are temporary total?
- What is their average weekly benefit?
- How are the wages of injured workers distributed?

Use Case 1: Legislation

State X wants to raise the maximum weekly temporary total disability benefit from $1,000 per week to $1,200 per week. Stakeholders have reached out to NCCI to understand the possible impact on system costs.

Which IDC data elements could an actuary use?

Use Case 1: Legislation—IDC Elements
- Pre-Injury Average Weekly Wage
- Method of Determining Average Weekly Wage
- Average Weekly Benefit
- Benefit Type Code
- Transaction Amount

Use Case 1: Legislation—Data Quality Roadblocks
- Missing or placeholder values for weekly wage or benefit type code (blank, 0, 1, 10000, etc.)
- Unreasonably high/low wages or average weekly benefit
- Misplaced decimal points
- Overuse of Benefit Type Codes 49 and 79 in place of 05

Use Case 2

Use Case 2: Research Support

NCCI has observed a significant increase in the number of large claims in the latest year of aggregated Financial Call data for State X. NCCI decides to examine IDC data to get some more background information about these claims.

What IDC data elements could we review?

Use Case 2: Research Support—Some Useful Elements
- Loss amounts
  - Indemnity and medical
  - Incurred and paid
- Part, Nature, and Cause of injury
- Age and tenure (derived)
- Pre-injury wages
- Linked elements
  - Class code (from Unit Statistical Data)
  - Medical bill data (from Medical Data Call)
  - Financial Call 31

Use Case 2: Research Support—Data Common Issues
- Missing or placeholder values
- Inconsistent values for derived elements
  - Hire Date < Birth Date
  - Maximum Medical Improvement Date < Accident Date
  - Etc.
- Key fields not linking across data Calls
- Different values from other data Calls

Use Case 3

Use Case 3: Benchmarking
- New benchmarking product—*Claims Data Dashboard* (*CDD*)
- Interactive tool for regulators and affiliated carriers to compare detailed industry claims data
- Carrier vs. state—or countrywide benchmark
- Data quality issues impact product usability

Use Case 3: Benchmarking—Common Issues
- Data elements that are completely unpopulated may result in *CDD* benchmarks not even loading
- Data elements that are mostly unpopulated may result in *CDD* exhibits that do not provide useful insights
- Data elements with issues affecting a subset of records
  - More likely to pass upfront edits and reasonableness checks
  - May result in poor insights without being obviously "wrong"

Use Case 3 Example: Attorney Involvement
The carrier on the right reported 100% of quarterly records with the attorney or authorized representative flag set to "N." On the right, the data reporter failed to populate an attorney or authorized representative flag on any of their records. As a result, our tool cannot generate an exhibit.
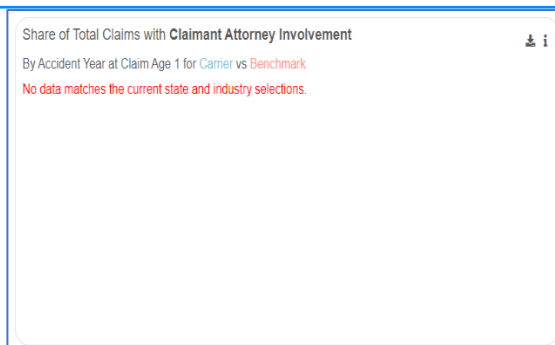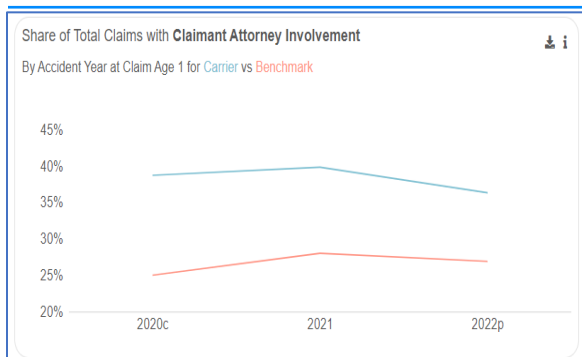
Use Case 3 Example: Maximum Medical Improvement Date

The carrier on the right reported 99.9% of quarterly records with a blank Maximum Medical Improvement (MMI) Date. On the right, the data reporter submitted the vast majority of their records with a blank MMI Date, and as a result, an exhibit renders but does not allow reporters to assess their own performance against the industry aggregate.
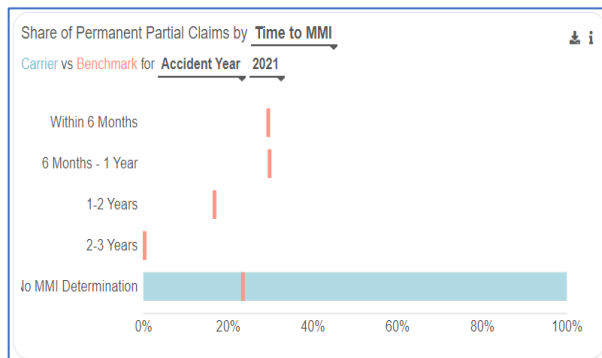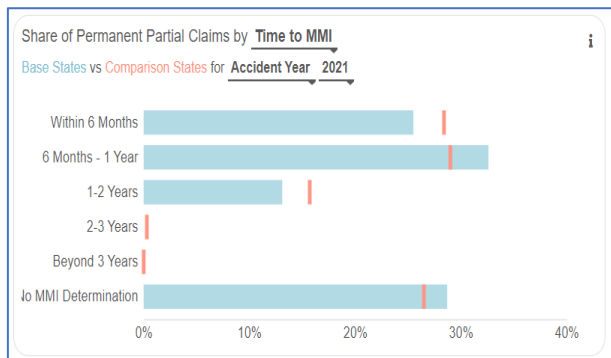
Use Case 3 Example: Pre-Injury Wage

This carrier submitted a large number of records with very low average weekly wages (possibly a decimal place error). In the news, we heard about a high amount of inflation in 2021 and an even higher amount in 2022. That's reflected in the 5% and 10% year-over-year changes that you can see in the pink benchmark on the right. In the carrier's own blue data, however, you can see a 32% drop in the pre-injury average weekly wage in 2021.

Average Weekly Wages

By Calendar- Accident Year for Carrier vs Benchmark vs QCEW

Calendar/ Accident Year	Carrier		Benchmark	
	Average Injured Weekly Wage	% Change	Average Injured Weekly Wage	% Change
2019	$742		$819	
2020	$669	-10%	$826	1%
2021	$458	-32%	$869	5%
2022	$518	13%	$959	10%

Chapter 4—Editing and Validation Process

Submission Edits

Edits are broken into four stages to determine if the file can be processed:

- File Acceptance
- Record Acceptance
- Quality Tracking
- Quarter-End Validation

File Acceptance

In the first stage, the entire file is either accepted or rejected:

- File-naming convention is valid
- Data provider is authorized to report
- Record length is correct and contains valid characters
- Contains a File Control Record with valid values
- Record count balances
- Replacement file formatted correctly

Record Acceptance

The second stage checks processing fields and key fields of the records to determine if they're populated with valid values:

- Key Fields
  - Carrier Code
  - Policy Number Identifier
  - Policy Effective Date
  - Claim Number Identifier
  - Accident Date
- Processing Fields
  - Record Type Code

- Transaction Code
- Transaction Date
- Transaction Identifier

Quality Tracking

The third stage occurs on records that have been accepted, meaning that the record passed the first two stages:

- Formatting is correct by field class
- Data is reported and values are valid
  - Based on format
  - Code Values
  - Y/N

Quarter-End Validation

The fourth stage evaluates an entire quarter's worth of data reported for a group. The data is aggregated and edited. This includes summarized data that's reported by all data providers for the group:

- Aggregate results for all files
- New edits
  - Compares the data between record types
  - Compares the data between valuations

Quarter-End Validation Examples

- Attorney or Authorized Representative Indicator = N on the quarterly record, but there's at least one transaction for the Claimant Legal (20) payment

- Indemnity Paid-To-Date, on the latest quarterly record, increases by $5,000 from the prior quarter, so we expect $5,000 in transactional payments

Chapter 5—Reasonableness Validation

Reasonableness Validation

Reasonableness is determined based on the individual element being evaluated and the context in which we are evaluating. In most cases, it would be unreasonable for an element to be a single value for every record submitted for a carrier group—whether that be a Y or N, a particular code value, a date field, or a dollar field. However, there could be a case where it might make sense for that to be true, depending on the element.

- What is reasonableness?
- How do we determine reasonableness?
- How do we pick the elements to look at?
- What's the threshold?

- How will I be notified?
- Can you give me an example?

Reasonableness Example

Gender: An unusually large percentage of records are reported with Gender set to a single code value:
- 50,000 quarterly records submitted since Second Quarter 2020
- All 50,000 records had Gender = 2 (Female)
- Is this reasonable?
- Is 98%? Or 95%? Or 90%?

Benefit Type Code

The code that corresponds to the type of benefits paid to or on behalf of the claimant.
- Benefit Type Distribution by Percentage of Record
    - Temporary Total (05)—Most common
    - Temporary Partial (11)
    - Permanent Partial (03, 04), Permanent Total (02), Death (01)
    - Claimant Legal (20)
    - All other codes
- Benefit Type Distribution by Transaction Amount
    - Similar distribution except for inclusion of settlements (49, 79)

Missing one or more of the most common benefit type codes:
- Death (01)
- Permanent Total (02)
- Scheduled Permanent Partial (03)
- Unscheduled Permanent Partial (04)
- Temporary Total (05)
- Temporary Partial (11)
- Claimant Legal (20)

Overreporting of Benefit Type Codes 49, 79, and/or 99:
- 49—Indemnity and Medical Combined
    - Prefer you proportion out indemnity from total and not use this code
- 79—Lump Sum Including Multiple Indemnity
    - Would want the multiple indemnity benefit types reported separately if possible
- 99—Other Indemnity Benefits Not Otherwise Specified
    - What other benefits exist that don't fall into an existing code?

Jurisdiction State

- The code that corresponds to the governing jurisdiction that would administer the claims and whose statutes will apply to the claim adjustment process.

- Claims with Federal Jurisdiction (Code 59), as reported on the quarterly record, without ever receiving a corresponding transaction for a federal benefit payment.

Pre-Injury Average Weekly Wage

Unusually high percentage of records with Pre-Injury Average Weekly Wage that is uncommon.

- < $10
- > $10,000

Transaction From and To Dates

Represent the first and last day of the specific period the payment represents.

Do not represent the entirety of the claim period to date.

Incorrect Reporting Example

Claim Number	Transaction From Date	Transaction To Date	Transaction Amount	Weekly Benefit Amount
1	01/01/2023	01/07/2023	$ 500	$ 500
1	01/01/2023	01/14/2023	$ 500	$ 500
1	01/01/2023	01/21/2023	$ 500	$ 500
1	01/01/2023	01/28/2023	$ 500	$ 500

Correct Reporting Example

Claim Number	Transaction From Date	Transaction To Date	Transaction Amount	Weekly Benefit Amount
1	01/01/2023	01/07/2023	$ 500	$ 500
1	01/08/2023	01/14/2023	$ 500	$ 500
1	01/15/2023	01/21/2023	$ 500	$ 500
1	01/22/2023	01/28/2023	$ 500	$ 500

Temporary Disability Benefits Extinguishment Code

The code that corresponds to the reason why temporary benefits were terminated.

Code	Description
1	Return to Work (RTW)
2	Release to Return to Work
3	Maximum Medical Improvement (MMI)
4	Maximum Statutory Duration
5	Medical Noncompliance
6	Other

When you are still paying out temporary disability benefits, NCCI wants you to report a zero (0). Because zero (0) is not shown in the table, some data reporters have reported 6 instead. NCCI will update the *Indemnity Data Call Reporting Guidebook* to show zero (0) as a valid option.

Code	Description
0	Temporary Benefits not Extinguished or Not Applicable
1	Return to Work (RTW)
2	Release to Return to Work
3	Maximum Medical Improvement (MMI)
4	Maximum Statutory Duration
5	Medical Noncompliance
6	Other

Key Takeaways

- The importance of Indemnity data
- Most of the data validation is done via edits
- Reasonableness checks require more manual reviews
- Ongoing process is looking for only the most extreme cases
- NCCI expectation from the data provider:
  - Explanation
  - Data to be corrected going forward