



Musculoskeletal Disorder Claims Injury/Illness Years 2012 - 2023

Corporate Business Information and Analytics
Workplace Safety and Insurance Board

October 2024

Agenda



- This presentation was prepared for the Centre of Research Expertise for the Prevention of Musculoskeletal Disorders (CRE-MSD) to provide an overview of Ergonomic Related Musculoskeletal Disorder (MSD) claims with a date of injury/illness between 2012 and 2023, and with entitlement to Workplace Safety & Insurance Board (WSIB) benefits for lost-time from work, i.e., allowed, lost-time (A-LT) claims.
- Claims for MSD are defined using the strategy proposed by the committee struck to harmonize MSD claim coding across jurisdictions. This uses a combination of Nature of Injury and Event codes from the Canadian Standards Association Z-795 coding standard supported by the National Work Injury/Disease Statistics Program (NWISP).
- **Case Management** - overview
- **Claim Volumes** – claim counts, as a percent of all A-LT claims, as of March 31 each year following the Injury/Illness Year.
- **Claimant Demographics** – Age, Gender, Occupation
- **Claim Details** – by Industry (pre and post implementation of a new WSIB premium rate framework in 2020), Event, Nature of Injury, Source of Injury and Part of Body
- **Benefits Costs** – including loss of earnings (LOE), non-economic loss (NEL), return-to-work (RTW), and health care from 2016 – 2023 with a snapshot date of July 31st, 2024 to allow for maturity.
 - overall costs of MSD versus Other A-LT claims, costs by industry
- **Permanent Impairment**
 - Secondary Entitlement – Psychological and Chronic Pain Disability

Life of a claim

We follow the case management framework on behalf of the rights of people with claims and their employers. Through communication and relationship building, we focus on supporting people with recovery and return to work so they can return to what matters most.

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- 1. Claims registration** Registering a claim starts by reporting an injury, illness or exposure.
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- 2. Eligibility decision** There are two types of cases:
- simple cases (i.e., slips, trips or falls) with no delay in reporting the incident or receiving medical attention
 - complex cases, which require inquiries to arrive at a decision
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- 3. Case management** Following initial entitlement, if the person hasn't recovered from their injury, case management activities will begin. These activities include payment, return to work and recovery monitoring
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- 4. Claim resolution** Resolution in a case happens when the person who was injured or ill reaches maximum medical recovery and returns to work.
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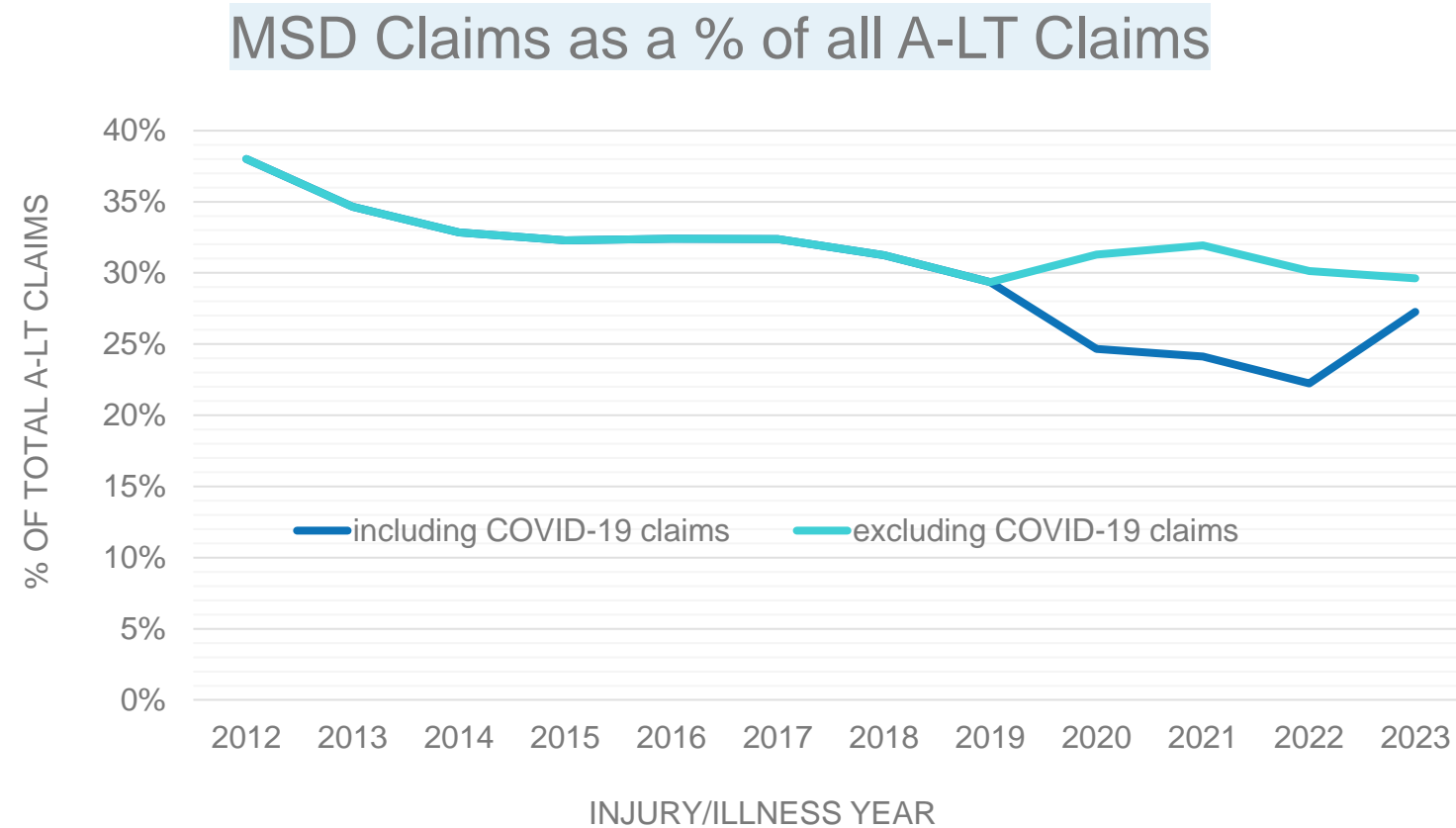
Limitations of Report



- Reporting as of March 31 following each injury/illness year provides data as of the same “snapshot” for comparison but means some MSD claims will be missed. To be included in the review population, the MSD must be diagnosed, registered with the WSIB, allowed for entitlement, and have Statistical Coding applied by March 31.
- Reporting A-LT claims only means work related MSD claims involving no lost-time from work are not included.
- Using current data for benefit costs, days lost, NEL, RTW, secondary entitlement means that older claims are more mature and not always comparable to more recent claims (but does allow these claim events to evolve for a more accurate picture of the population).
- Only the workforce covered by the WSIB is included - about 75% of the total workforce.
- Raw claim counts by industry without denominators for the workforce do not necessarily reflect the impact on the sector. Rates of MSDs in Mining, Agriculture, Forestry, and Pulp & Paper may not be low if the size of the workforce is factored in.
- Identifying MSD claims relies on data coded over time, and minor shifts in the population might be due to slight changes in coding practice or in case management.

Claim Volume Summary

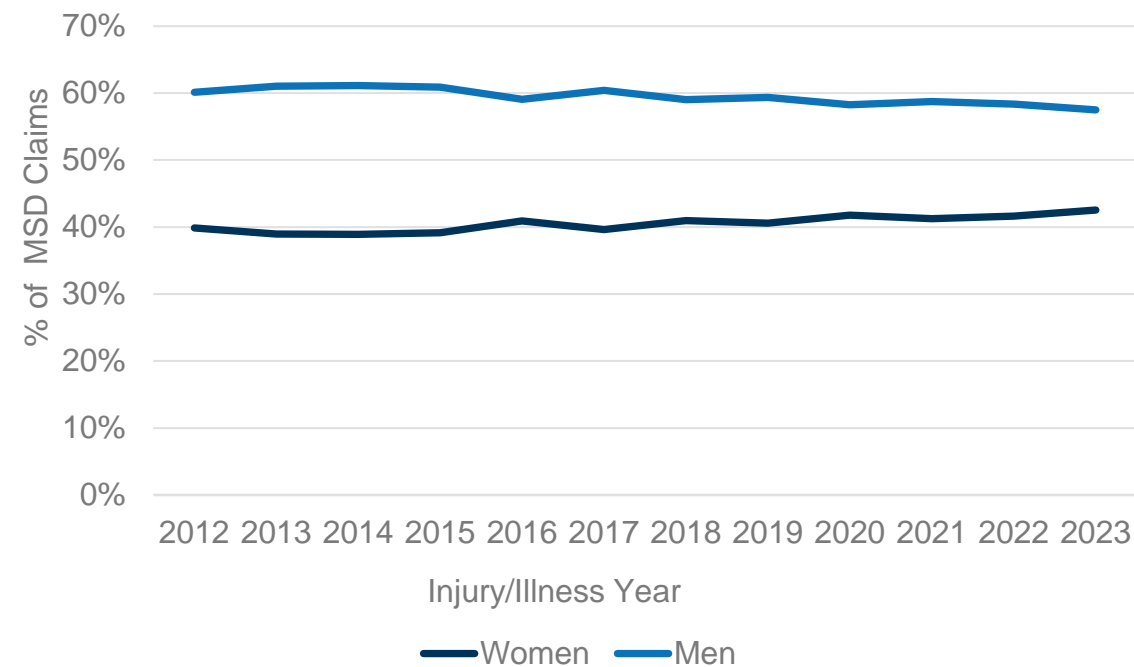
- MSD claims consistently accounted for about one-third of allowed, lost-time claims for injury/illness years 2012 to 2023.
- However, the claim volume has been trending downward, from a high of 38% of all A-LT claims in 2012, to about 30% of all A-LT claims in 2022 and 2023 (if COVID-19 claims are excluded from the A-LT claim population).



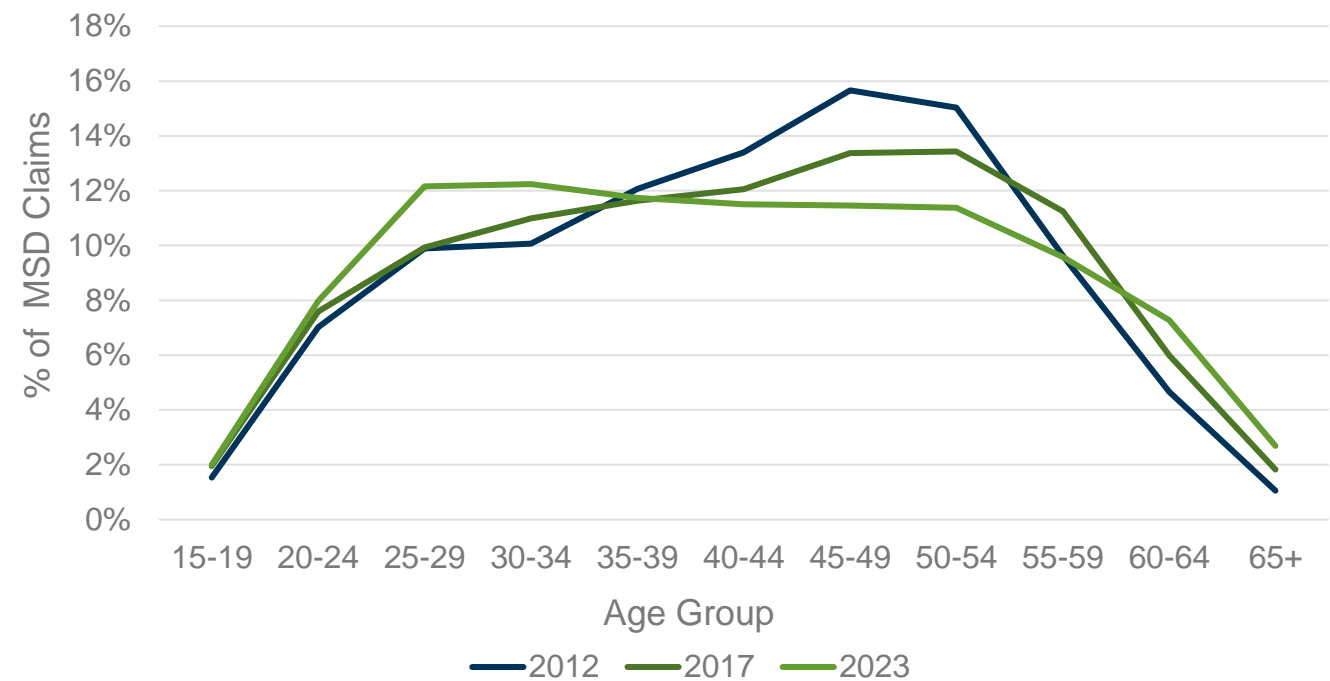
Claim Volume – Gender and Age

- Overall, about 40% of A-LT MSD claims are filed by women, and 60% by men. From 2012 to 2023, there has been a slight trend down in claims from men (60.1% - 57.5%) and up in claims from women (39.9% – 42.5%).
- MSD claims are submitted to the WSIB from workers of all ages, but the distribution of age at diagnosis has shifted over the review period from having a peak in the 45 to 49 age group in 2012, then flattening over the following years, to having a slight peak in the 25 to 34 age groups by 2023.

MSD Claims by Gender



MSD Claims by Age Group

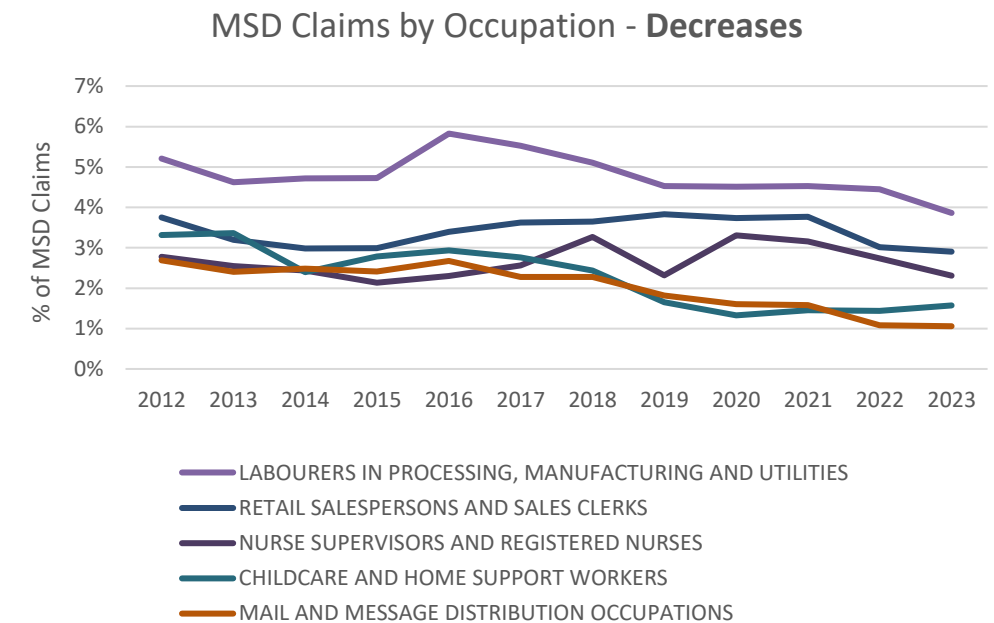
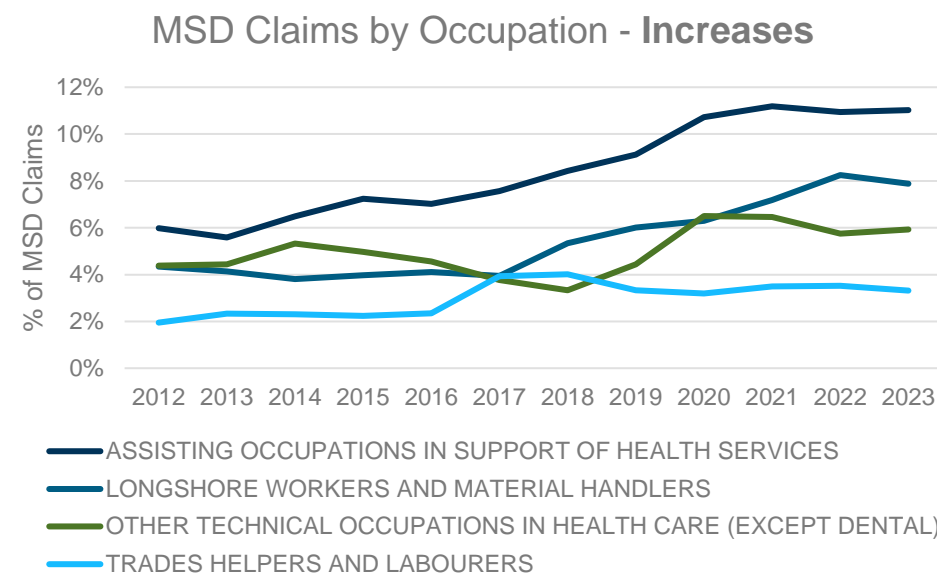
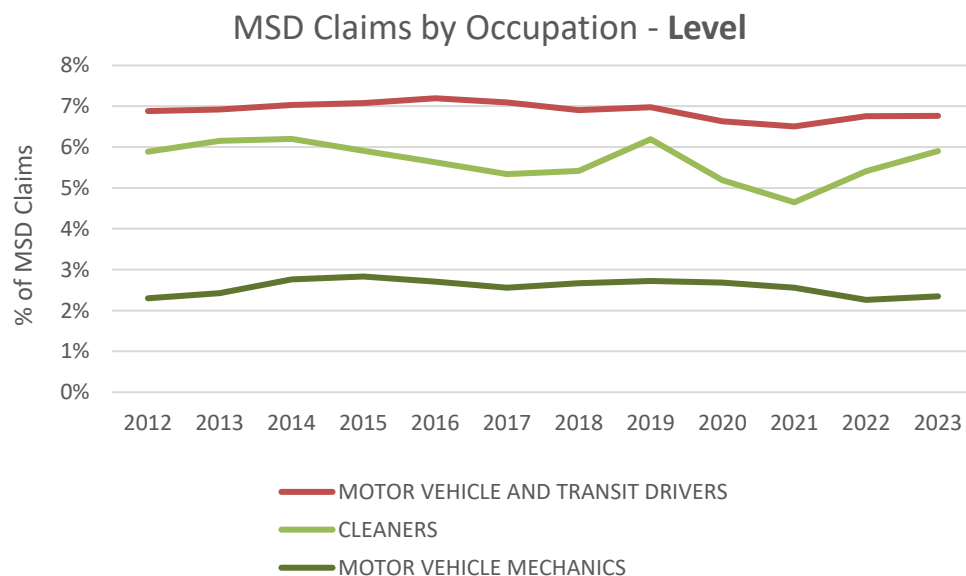


Claim Volume – Occupation

- MSD claims are submitted from workers in a wide variety of occupations across all industries. However, some occupations consistently showed up in the top 10 for injury/illness Years 2012-2023.
- Assisting Occupations in Support of Health Services, Motor Vehicle and Transit Drivers, and Cleaners are consistently the top three occupation groups.

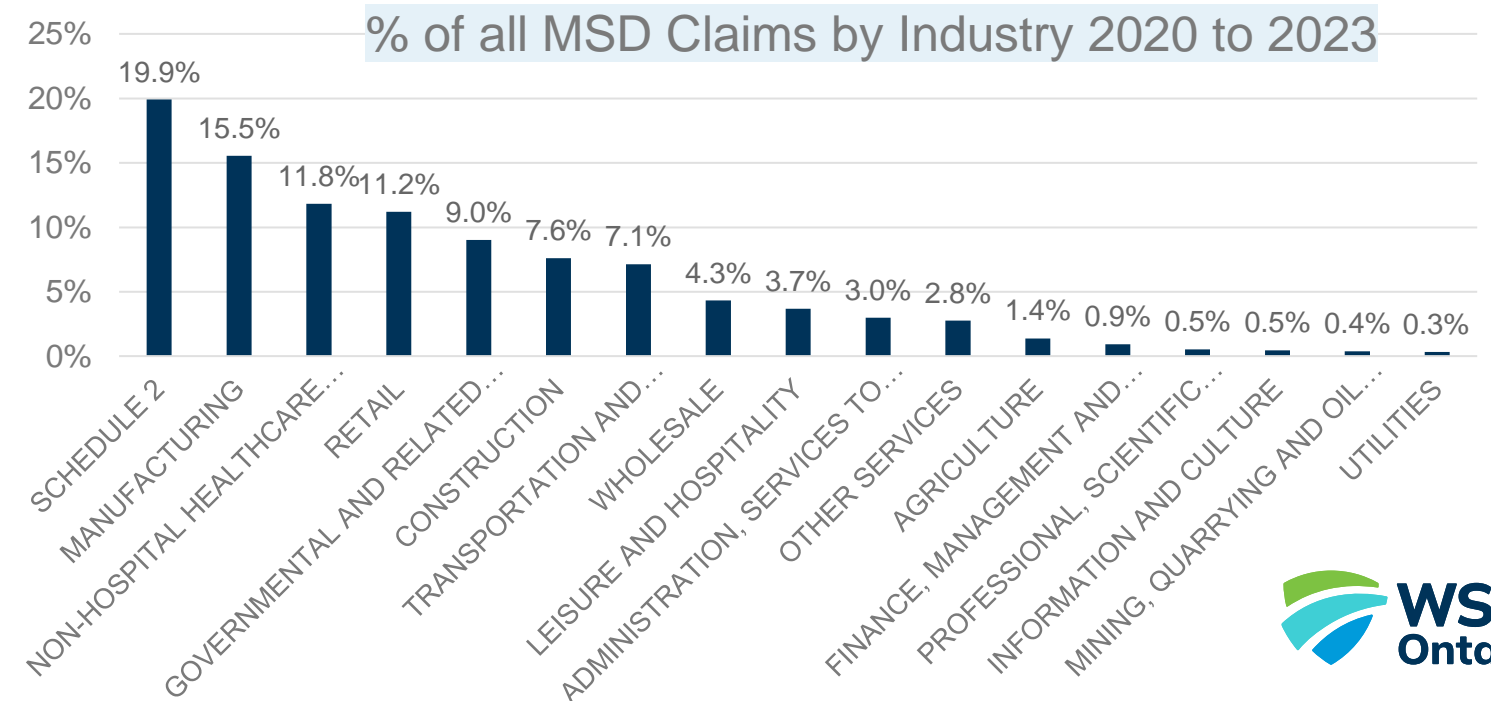
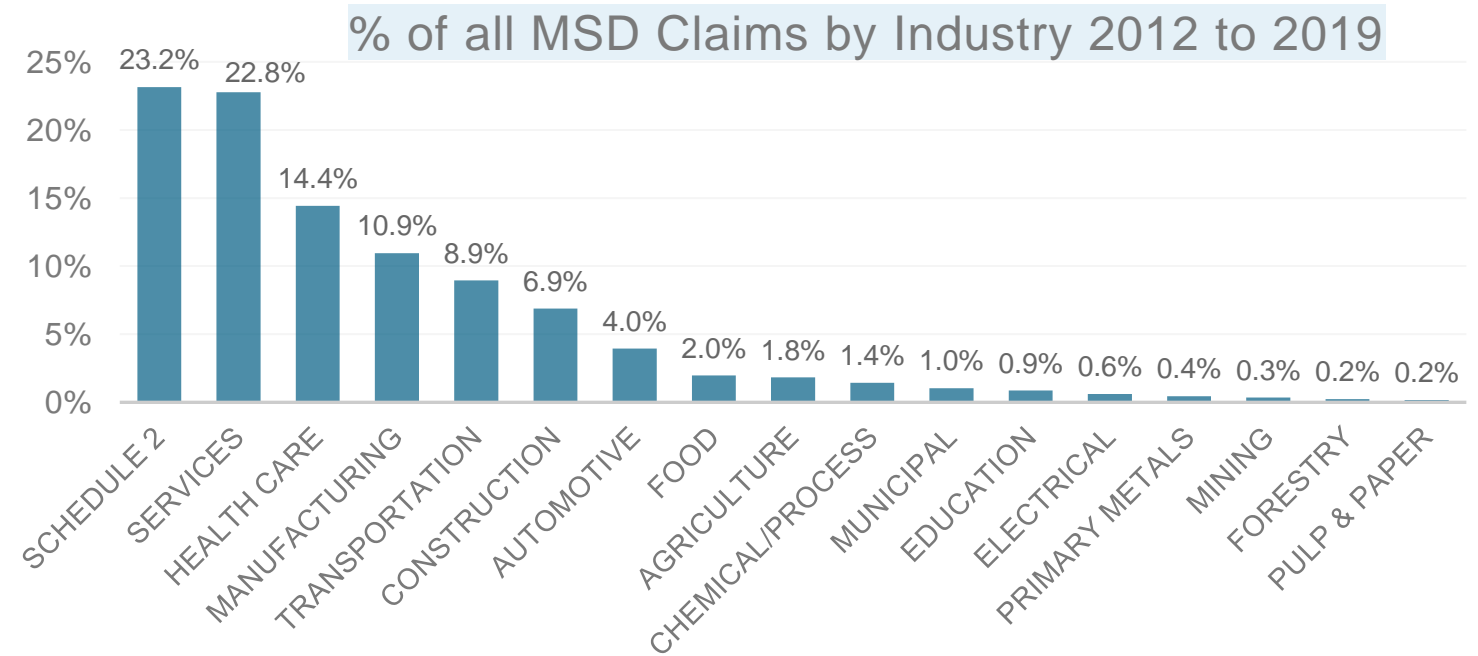
- Assisting Occupations in Support of Health Services, Longshore Workers and Material Handlers, and Trades Helpers and Labourers had an increase in MSD claims in the review period.

- Childcare and Home Support Workers, and Mail and Message Distribution Occupations showed a decrease in claims by about half from 2012 to 2023.



Claim Volume – Industry

- Schedule 2 and Services have the highest percentage of MSD claims over injury/illness years 2012 to 2019, followed by the Health Care sector and Manufacturing.
- Under the rate framework introduced for injury/illness years 2020 onward, Manufacturing absorbed several previously separate sectors (automotive, pulp & paper, primary metals) and so has the second highest percentage of MSD claims from 2020-2023, again behind Schedule 2.
- Although not directly comparable, the Construction industry remains at about 7%, and Agriculture and Mining remain low at 1.6% and 0.3%, respectively.



Claim Volume – Event and Source

- Overexertion events (lifting, pushing, pulling, throwing, carrying, turning) have accounted for about 53% of A-LT MSD claims for injury/illness Years 2012 to 2023.
- Bodily reaction events (bending, climbing, reaching, twisting, running, etc.) make up approximately 37%.
- Although the counts are small and fluctuate easily, Repetitive motion, and Static posture and sustained viewing events show a slight increase from 2012 to 2023.

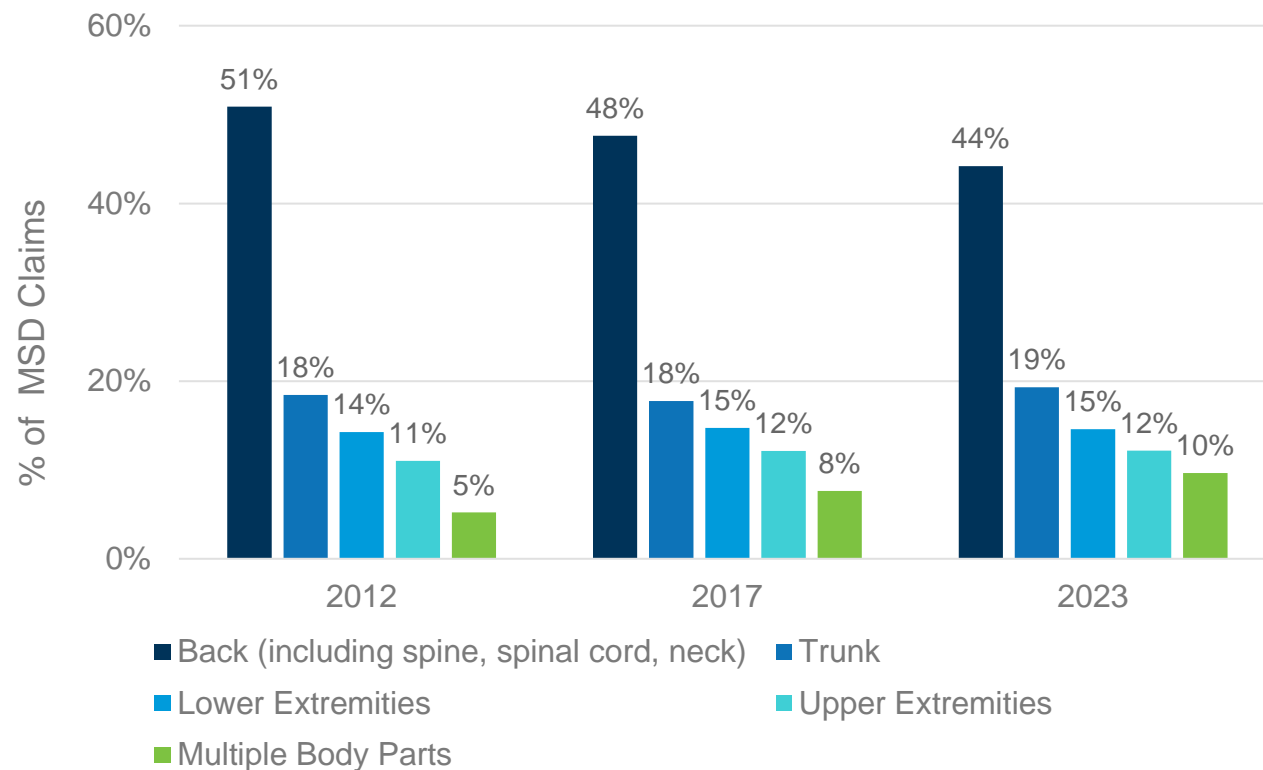
Event Category	% of MSD Claims		
	2012	2017	2023
Overexertion	49.5	53.5	53.4
Bodily reaction	22.9	23.7	20.7
Bodily reaction and exertion	17.1	12.0	13.9
Repetitive motion	9.9	10.0	11.1
Static posture and sustained viewing	0.2	0.5	0.5
Rubbed or abraded by friction, pressure or jarred by vibration	0.3	0.3	0.4
Total MSD Claims	100.0	100.0	100.0

- The top Source of Injury/Illness, Persons (bodily motion or condition), accounts for 46% of MSD claims from 2012-2023. This is followed by Containers, boxes, barrels, packages at 20%, and Parts and materials at about 9%.
- Source of Injury categories have fluctuated but not shifted noticeably during the review period.

Claim Volume – Nature of Injury and Part of Body

- The Back (including spine, spinal cord, neck) continues to be the most common victim of an MSD, at an average of 48% of claims from injury/illness Years 2012 to 2023. MSDs to Multiple Body Parts is showing a steady increase from about 5% of claims in 2012 to 10% of claims in 2023.
- Sprains and strains account for over 80% of MSD claims by Nature of Injury. More specific diagnoses such as rotator cuff tear, carpal tunnel syndrome, and tendonitis make up roughly 10%.

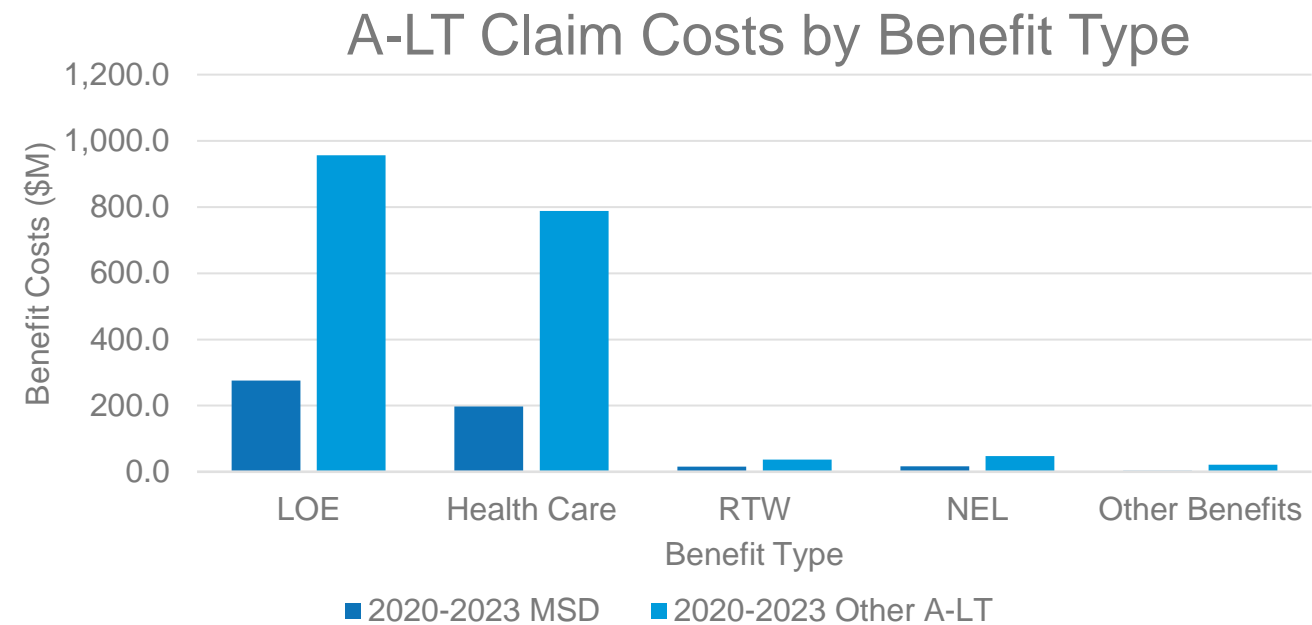
MSD Claims by Part of Body Group



Nature of Injury Category	Percent of A-LT MSD Claims			
	2012	2017	2023	2012 - 2023
Sprains and strains	78.6%	84.8%	83.5%	81.4%
Tendonitis	5.0%	2.4%	3.0%	3.3%
Hernia	2.3%	1.6%	1.2%	1.7%
Rotator cuff tear or syndrome	0.9%	0.6%	0.8%	0.8%
Intervertebral herniated, slipped disc	1.4%	0.5%	0.6%	0.8%
Epicondylitis	1.2%	0.8%	0.8%	0.9%
Carpal tunnel syndrome	1.4%	0.6%	0.6%	0.8%
Tenosynovitis	0.5%	0.4%	0.7%	0.5%
Sciatica	0.3%	0.1%	0.3%	0.3%
Bursitis	0.3%	0.2%	0.3%	0.3%

Benefit Costs – Summary

- Loss of earnings (LOE) payments and Health Care benefits account for most of the cost of A-LT MSD claims. Non-economic loss (NEL) awards and Return-to-Work (RTW) services make up the next two largest benefit costs.
- Total claim costs for MSD claims with injury/illness Years 2020 to 2023 were approximately \$509M as of July 31, 2024, making up about 22% of the total claim costs for all allowed lost time claims from the same period.



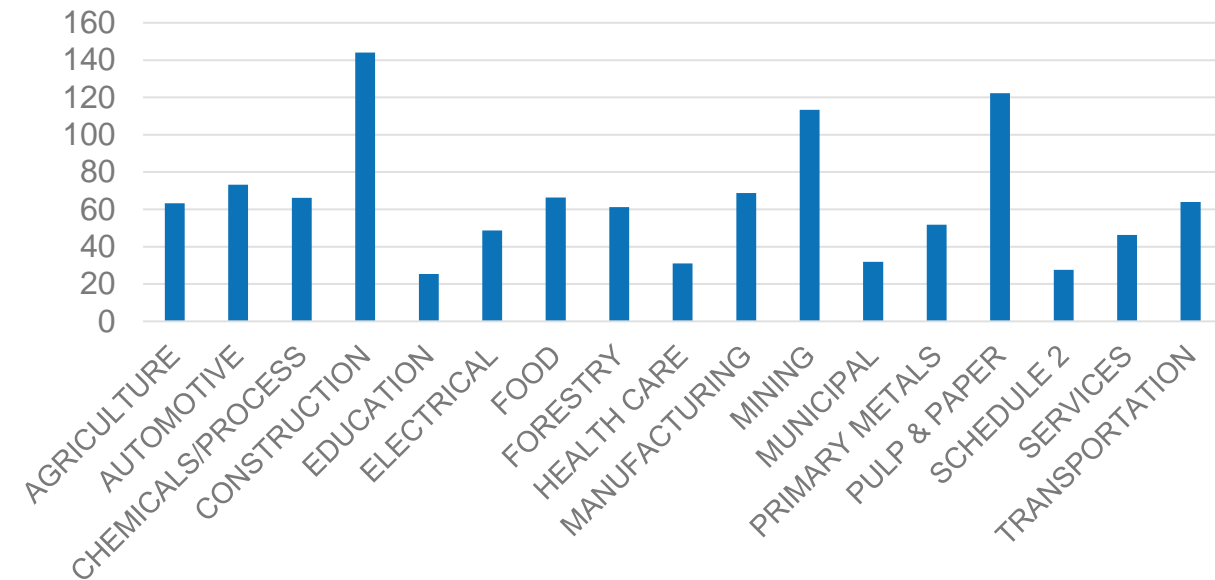
Benefit Type	Total Claim Costs (\$M)				2020-2023 MSD as % of Total
	2016-2019 MSD	2020-2023 MSD	2020-2023 Other A-LT	2020-2023 Total	
LOE	382.5	276.0	956.9	1,232.8	22%
Health Care	202.4	197.9	788.3	986.3	20%
RTW	32.7	15.9	36.8	52.7	30%
NEL	24.2	16.2	47.6	63.9	25%
Other Benefits	9.2	3.0	22.0	25.0	12%
Total	651.1	509.0	1,851.7	2,360.7	22%

Benefit Costs – by Industry 2016 to 2019

- For injury/illness Years 2016 to 2019, the industry with the highest Average Benefit Cost Days Lost per claim to date is Construction, at 144 days. The next highest are the Pulp & Paper (122 days) and Mining (113 days) industries.

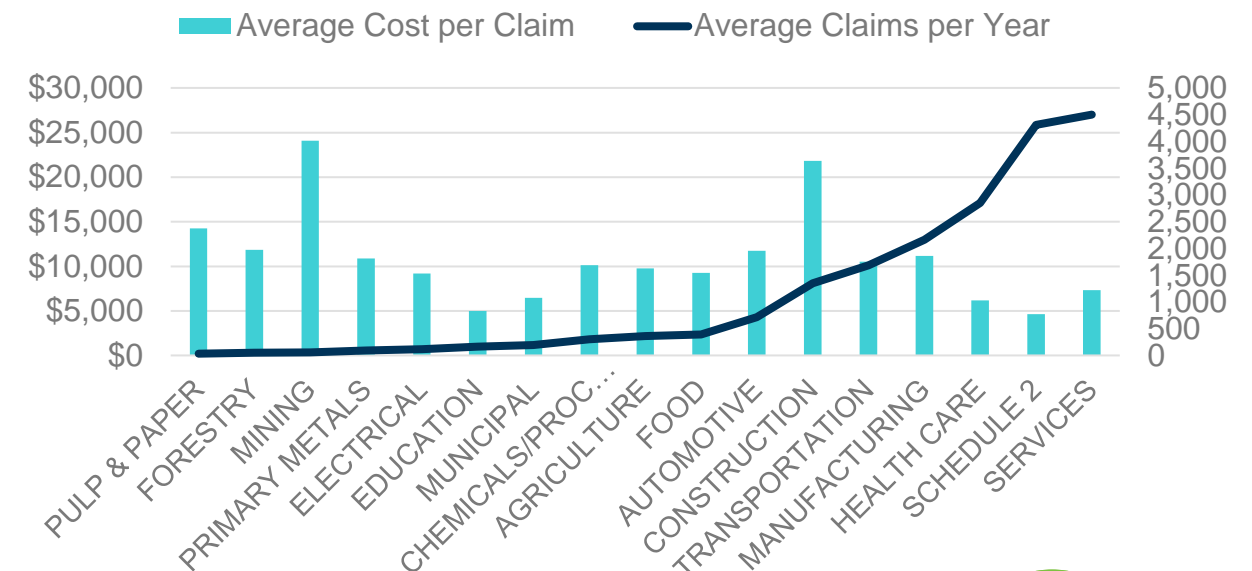


Average Benefit Cost Days Lost / Claim



- The industry with the highest Average Benefit Cost per claim to date is Mining, followed by Construction and Pulp and Paper.
- Some of the industries with the lowest volume of A-LT MDS claims per year have high average benefit costs.

Average Benefit Cost/Claim



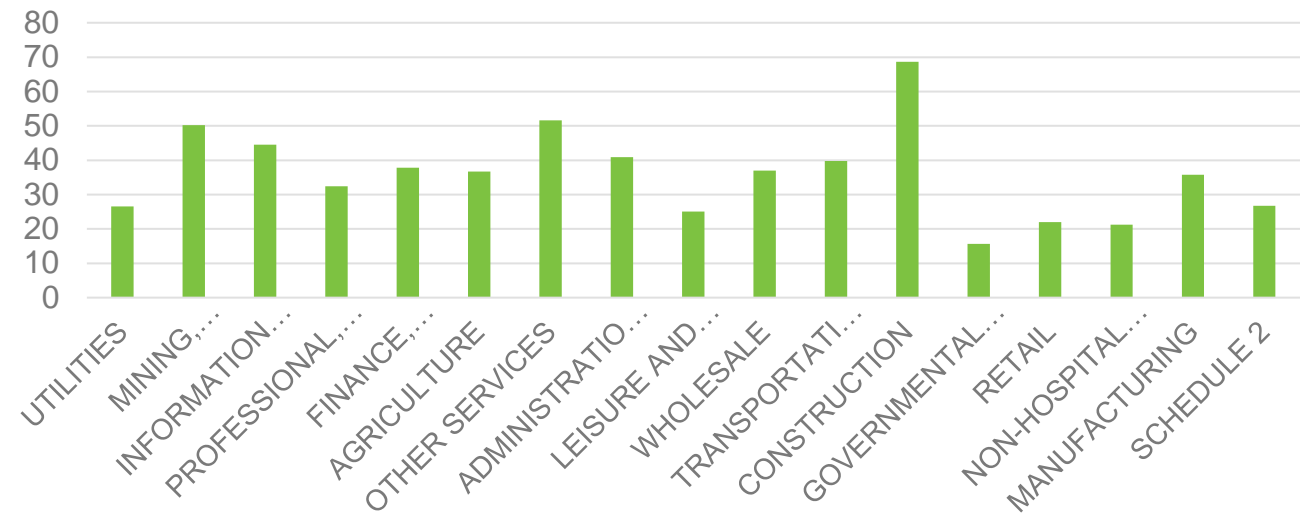
Benefit Costs – by Industry 2020 to 2023

- For injury/illness Years 2020 to 2023, the industry with the highest Average Benefit Cost Days Lost per claim is still Construction, at 68 days to date. The next highest are Mining (50 days) and “Other Services” (51 days), which includes Retail and Wholesale Trades.

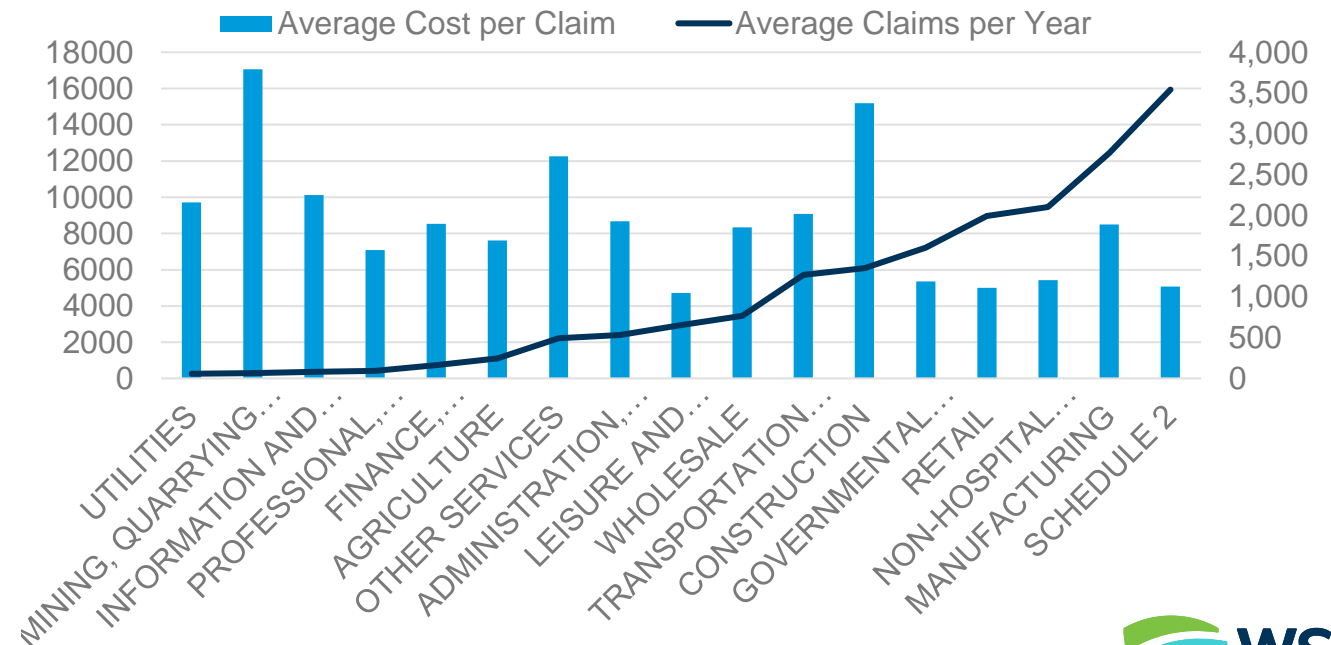


- The industry with the highest Average Benefit Cost per claim to date is again Mining, followed by Construction and Other Services. Information and Culture, which includes occupations such as technicians in motion pictures and telecommunications, also has a high average cost per claim.

Average Benefit Cost Days Lost / Claim

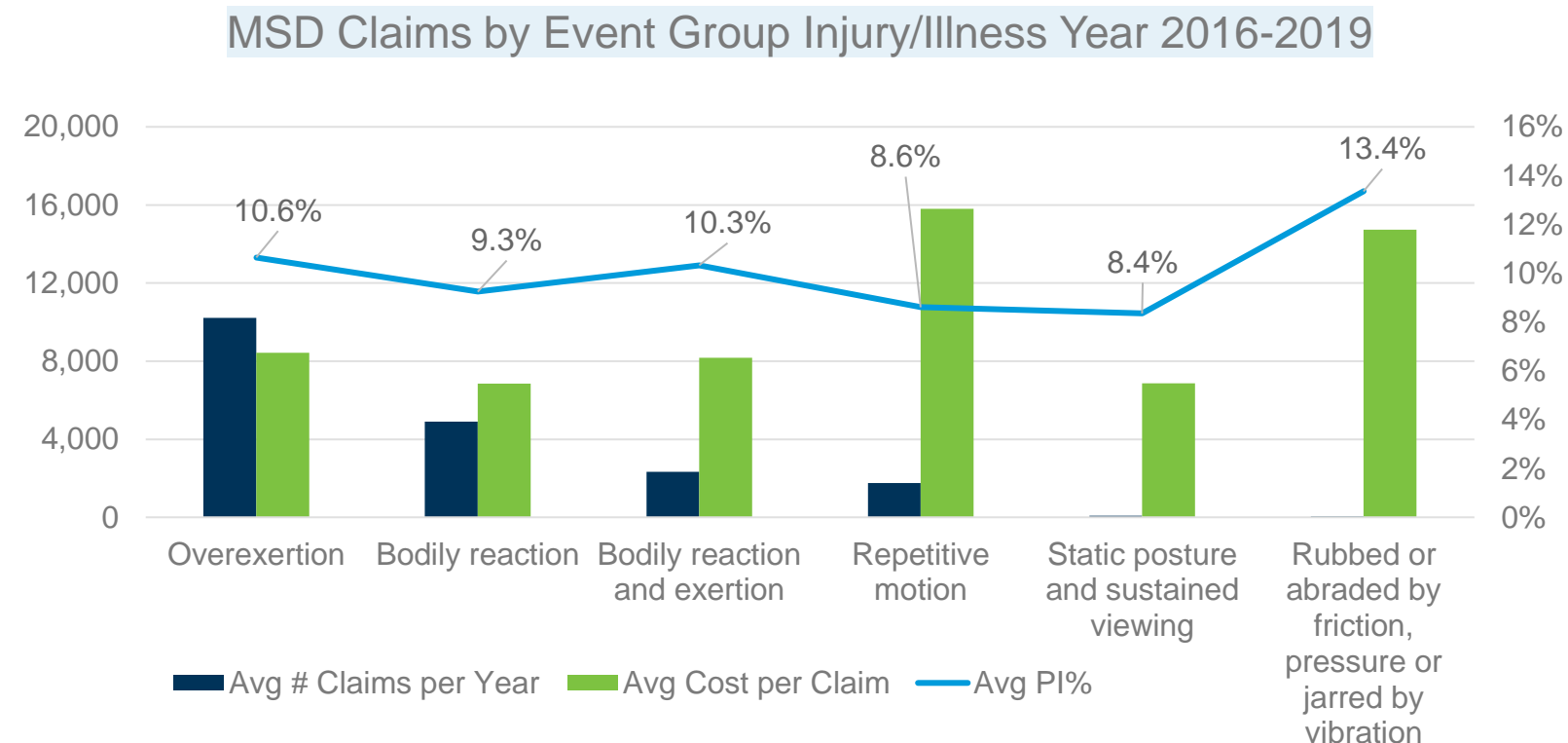


Average Benefit Cost/Claim



Benefit Costs – Non-economic Loss (NEL)

- About 5% of workers with an A-LT MSD claim have a NEL award for permanent impairment.
- MSD claims related to "Repetitive motion" and to "Rubbed or abraded by friction, pressure or jarred by vibration" have the highest average benefit cost days lost and benefit cost per claim, and account for 17% of the total benefit costs although they make up only 10% of A-LT MSD claims.
- These Event Groups are also the most likely to lead to a permanent impairment award for non-economic loss, at twice the average rate for all MSDs, and "Rubbed or abraded by friction, pressure or jarred by vibration" is also related to the highest average permanent impairment rating for injury/illness years 2016-2019 (13%) and 2020-2023 (10% to date).

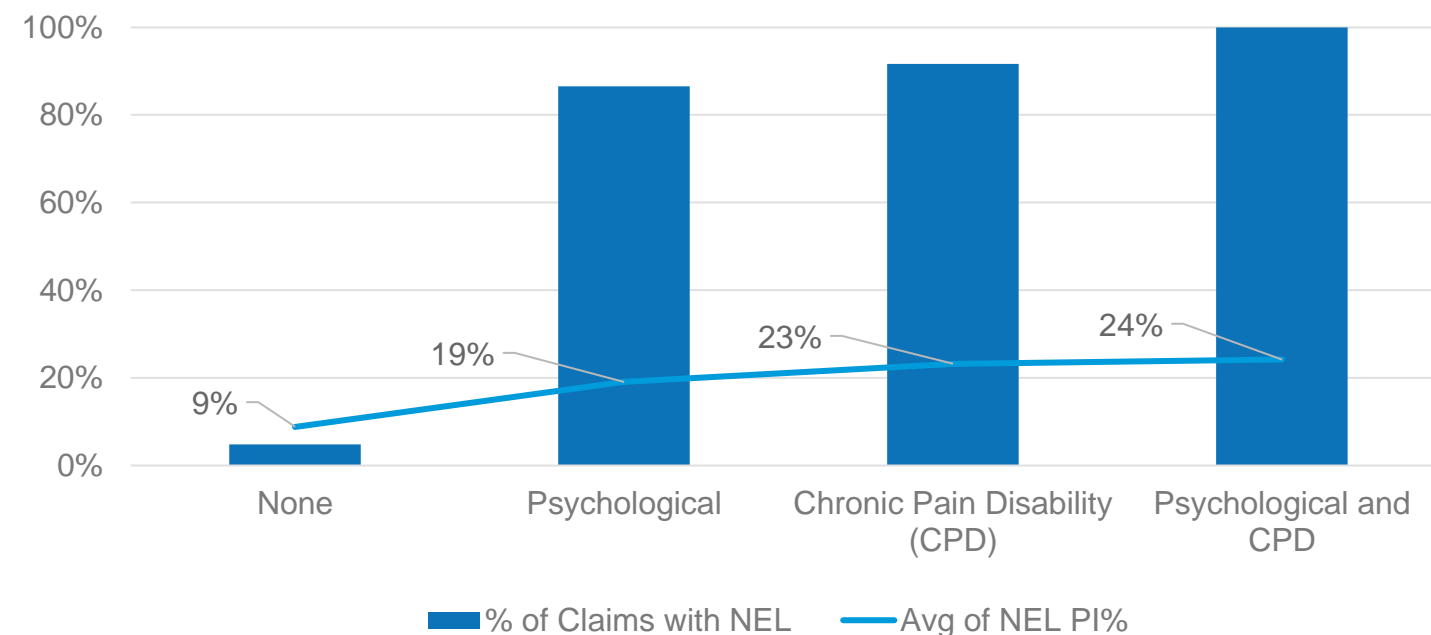


Benefit Costs – Secondary Entitlement

- Fewer than 1% of A-LT MSD claims include secondary entitlement for Psychological Impairment and/or Chronic Pain Disability.

Secondary Entitlement for Psych or CPD	Injury/Illness 2016 to 2019				
	% of A-LT MSD Claims	% with NEL Benefit	Average of NEL PI%	Average Benefit Cost Days Lost / Claim	Average Benefit Cost / Claim
None	99%	5%	9%	43.2	\$7,403
Psychological Impairment	0.65%	87%	19%	1308.9	\$187,295
Chronic Pain Disability (CPD)	0.02%	92%	23%	2269.9	\$185,762
Psychological and CPD	0.02%	100%	24%	2318.1	\$261,836
Overall	100%	5%	10%	52.8	\$8,687

- However, these few claims have much higher permanent impairment ratings for NEL (22% average versus 9%), and significantly higher days lost and claim costs.



Questions

