

Long- and Short-Term Disability and Workers' Compensation Trends for Employees with Bone Diseases

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Background

- United States (US) employee benefits include:
 - Sick Leave (SL) for paid time off, generally without a specific reason.
 - Short- and Long-term Disability (STD and LTD, respectively) for non-work-related injuries/illnesses.
 - Workers' Compensation (WC) for work-related injuries/illnesses.
- Absences due to SL, STD, LTD, and WC can have significant impact on business performance.
- Employers are intensifying efforts to manage these benefits and make connections with employee health.
- The 2020 Kaiser Family Foundation survey on employer health benefits¹ provides an excellent overview of typical employer coverage for direct medical and prescription costs.
 - It did not include any information on Sick Leave, Short- and Long-term Disability or Workers' Compensation.
- Published research on absence costs and lost time often inappropriately uses:
 - Proxies and subjective data (from surveys) to estimate absences, which:
 - Are subject to recall issues.
 - May report absences or impairments that didn't occur during their work hours.
 - Constant dollars and fixed salary-replacement percentages to estimate absence costs across benefits and diseases.
- This study compares all-cause STD, LTD, and WC utilization and explores changes from baseline for employees with bone diseases.

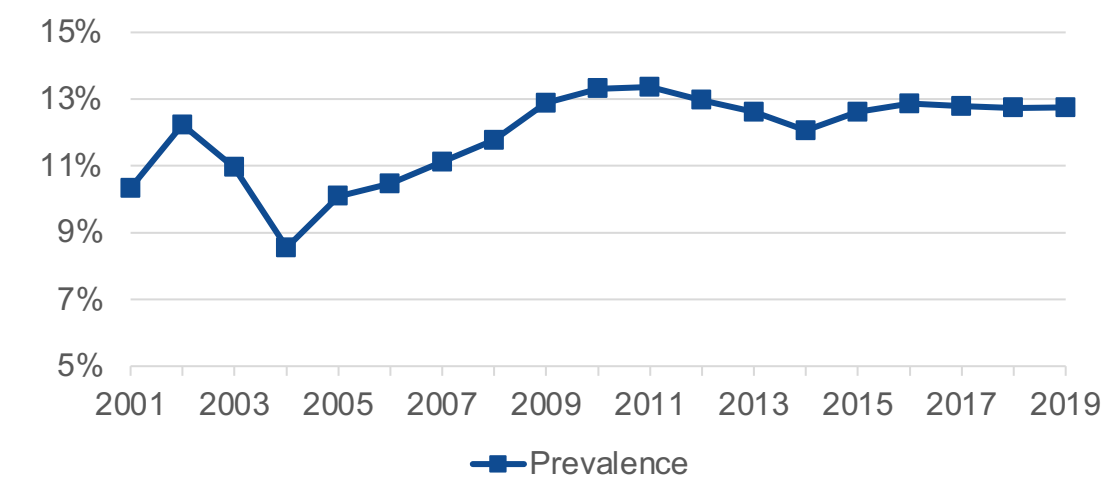
Study Population

- US employees within the Workpartners (formerly HCMS) Research Reference Database (RRDb) from 2001–2019.
- Workpartners RRDb contains:
 - Medical and pharmaceutical claims for over 3 million employees and dependents.
 - Enhanced employee demographics (including self-reported race).
 - Job-related employee information (salary, job type, full/part-time status, exempt/non-exempt status).
 - Employees in all states.
 - Claims with absence durations and payments for employee populations eligible for STD=1.2 million, LTD=1.1 million, WC=1.4 million, SL=710,000.
- The Workpartners RRDb has been used for research in:
 - Painful conditions such as fibromyalgia² and gout^{3,4}.
 - Specialty pharmacy-managed conditions such as Hepatitis-C^{5,6} and Rheumatoid Arthritis⁷.
 - Various other conditions.

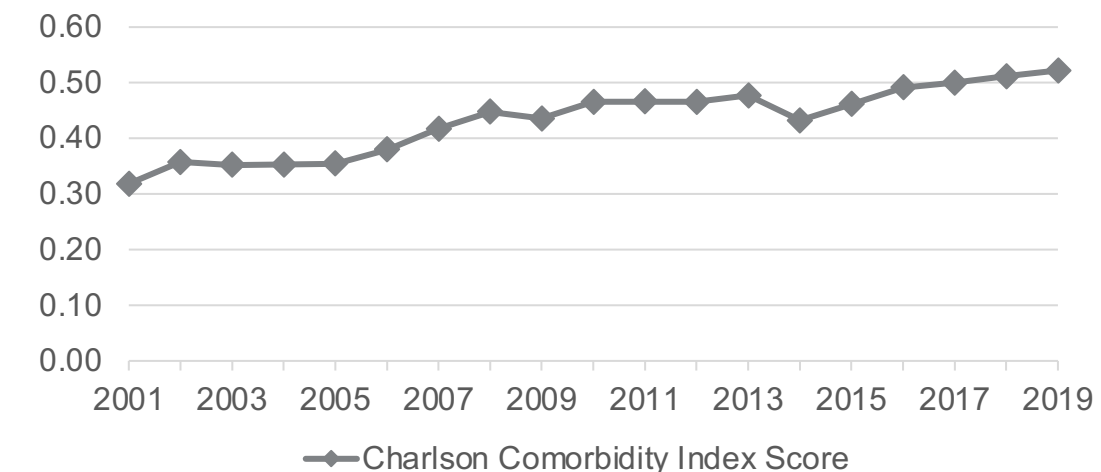
Methods

- Retrospective analysis of US employees in each year with medical claims in the Workpartners RRDb from the following US Agency for Healthcare Research and Quality (AHRQ) categories:
 - Other non-traumatic joint disorders.
 - Other bone disease and musculoskeletal deformities.
 - Other non-traumatic joint disorders.
 - Osteoporosis.
- For bone diseases, each year the analysis focused on:
 - The prevalence and Charlson Comorbidity Index score⁸ for each year's population.
 - The percent of eligible employees utilizing each benefit.
 - Mean leave length (in days).
 - Median payments as a percent of salary.
- Short- and Long-term Disability and Workers' Compensation payments included lump-sum distributions and potentially extended beyond the year initially incurred.
- Workplace accidents were paid under the Workers' Compensation benefit.
- Excluded claims:
 - Workers' Compensation claims without absence from work (medical only).
 - Sick Leave claims may be taken for any reason and were excluded.
- All employees' absences were aggregated based on the initiation year.
- For each benefit, average leave-length and median payment were calculated and compared with baseline (2001).

Annual Disease Prevalence

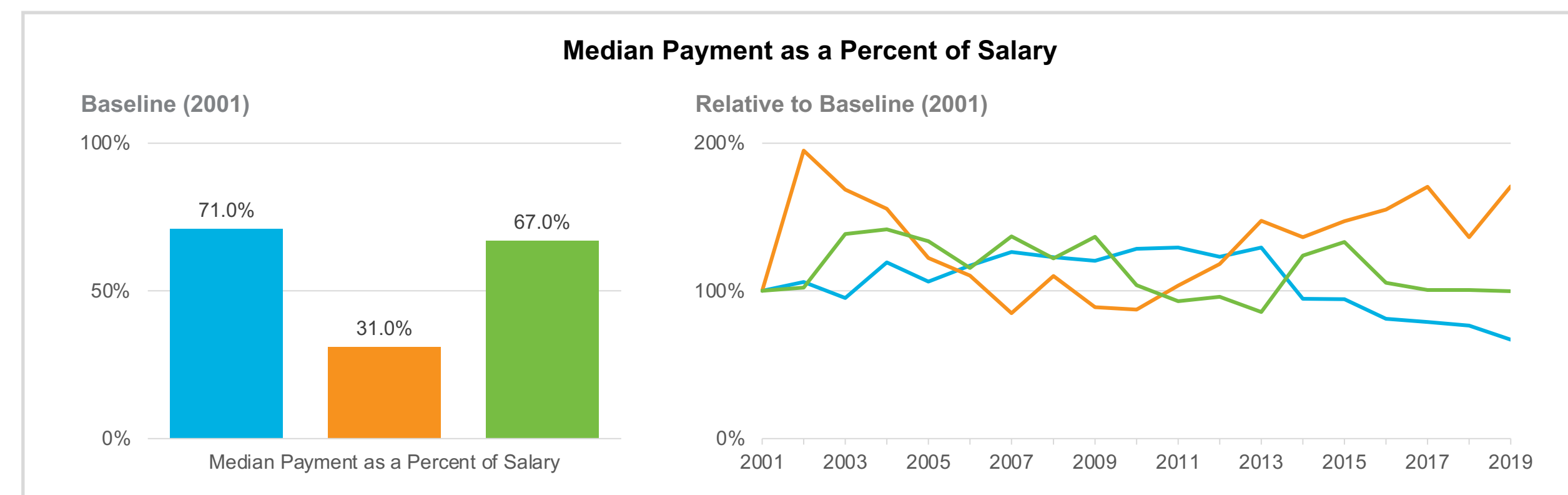
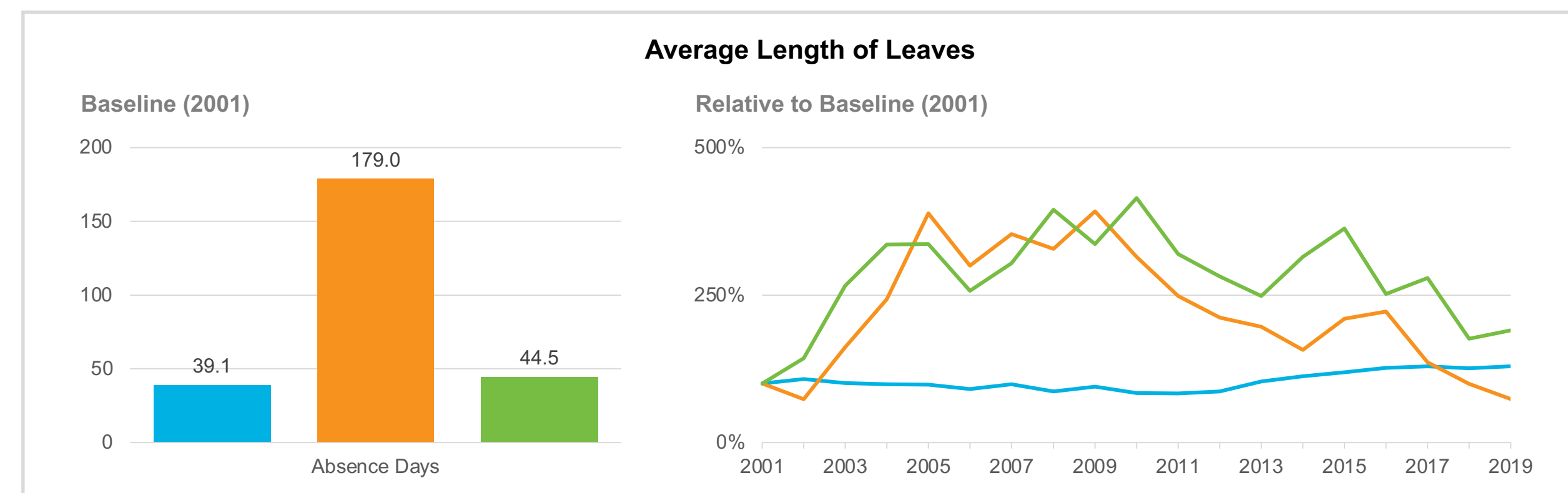
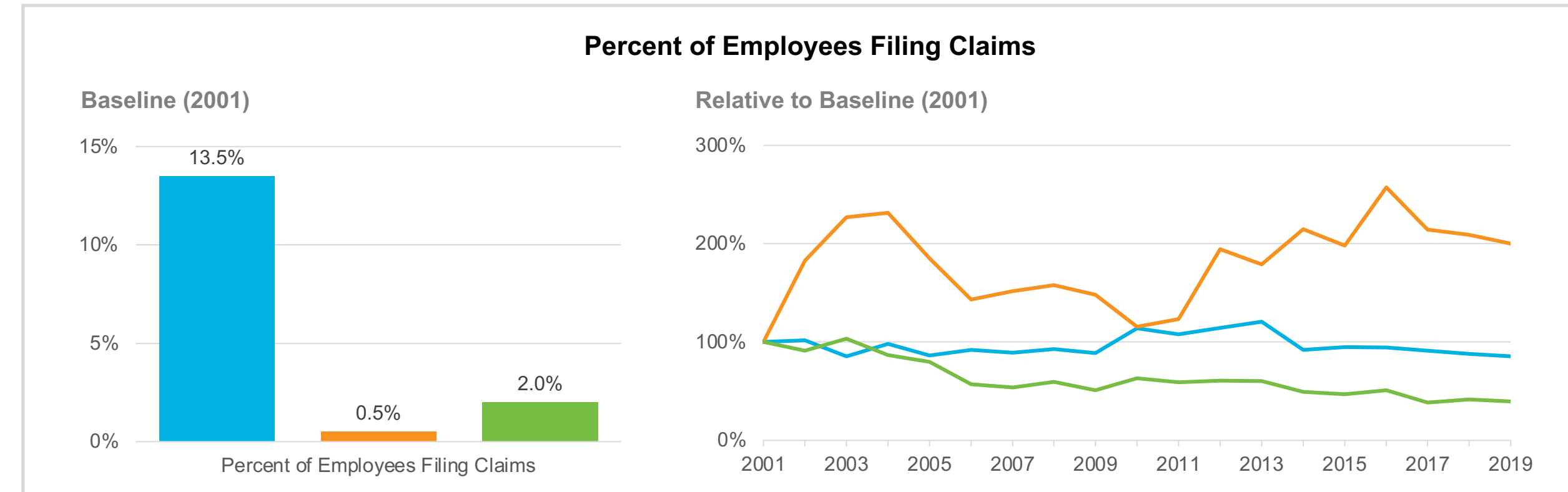


Annual Charlson Comorbidity Index Scores



Results

Legend: Short-term Disability (Blue), Long-term Disability (Orange), Workers' Compensation (Green)



Most Impacted Years

	STD	LTD	WC
Highest median payments	2013	2002	2004
Longest claim lengths	2017	2009	2010

Conclusions

- The percent of employees with bone diseases has been increasing since 2004 and the percent of employees filing claims varies by benefit.
- For each benefit, the leave lengths and payments as a percent of salary vary over time.
- Using a constant cost or salary replacement factor over time for all benefits is not accurate or appropriate.

Implications for Policy or Practice

- Coordination of benefits is important.
- Analysis of the impact of workplace accident and disability leaves and payments by use of a constant salary-replacement factor is inappropriate.
- Person-level data by year and benefit should be used.

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