

Absence Benefit Utilization, Duration of Leaves, and Payments Vary By Benefit and Over Time for Short- and Long-Term Disability and Workers' Compensation for Employees with Headaches and Migraines in the United States

Richard A Brook, MS, MBA^{1, 2, 3}; Nathan L Kleinman, PhD⁴; Ian A Beren, BS⁴.

¹Better Health Worldwide, Newfoundland, NJ. ²The National Payor Roundtable, Glastonbury, CT. ³National Association of Specialty Pharmacy, Washington, DC. ⁴Workpartners, LLC, Loveland, CO.

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 headaches and/or migraines.

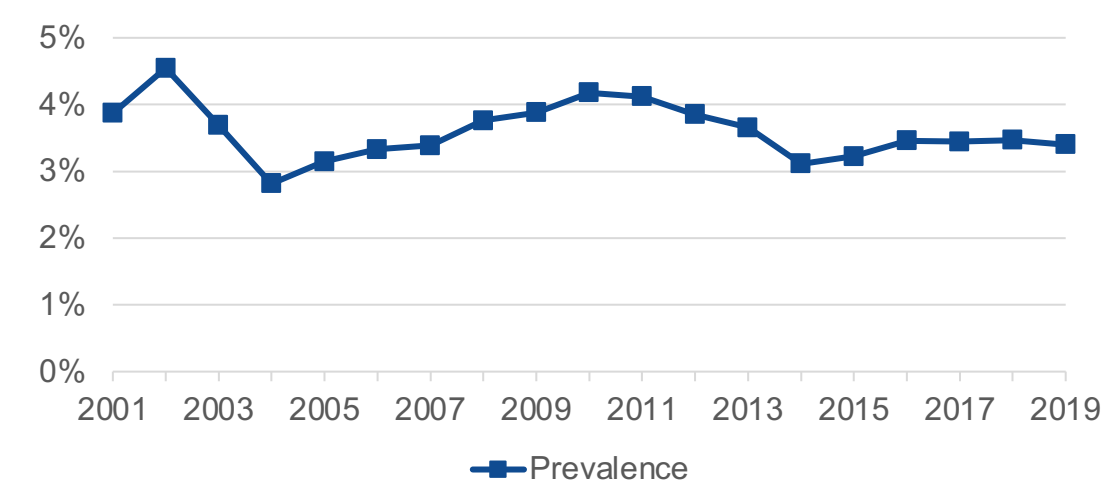
Study Population

- 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:
 - Neurologic conditions such as epilepsy², caregivers of patients with epilepsy with partial-onset seizures³ and employees with attention-deficit / hyperactivity disorder (ADHD)⁴.
 - Specialty pharmacy-managed conditions such as Hepatitis-C^{5,6} and acromegaly⁷.
 - Various other conditions.

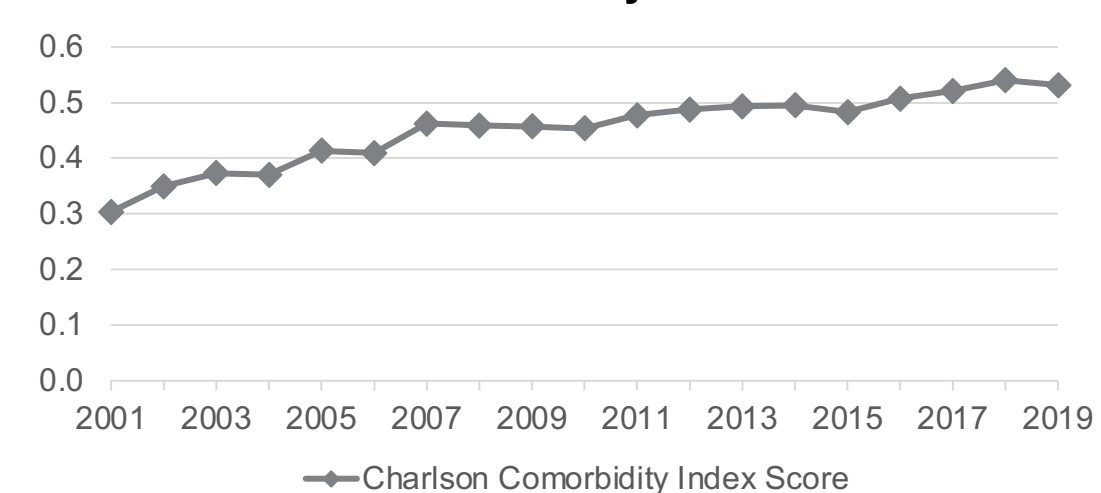
Methods

- Retrospective analysis of US employees in each year with medical claims in the Workpartners RRDb from the US Agency for Healthcare Research and Quality (AHRQ) headaches and migraines category.
- For headaches and migraines, 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

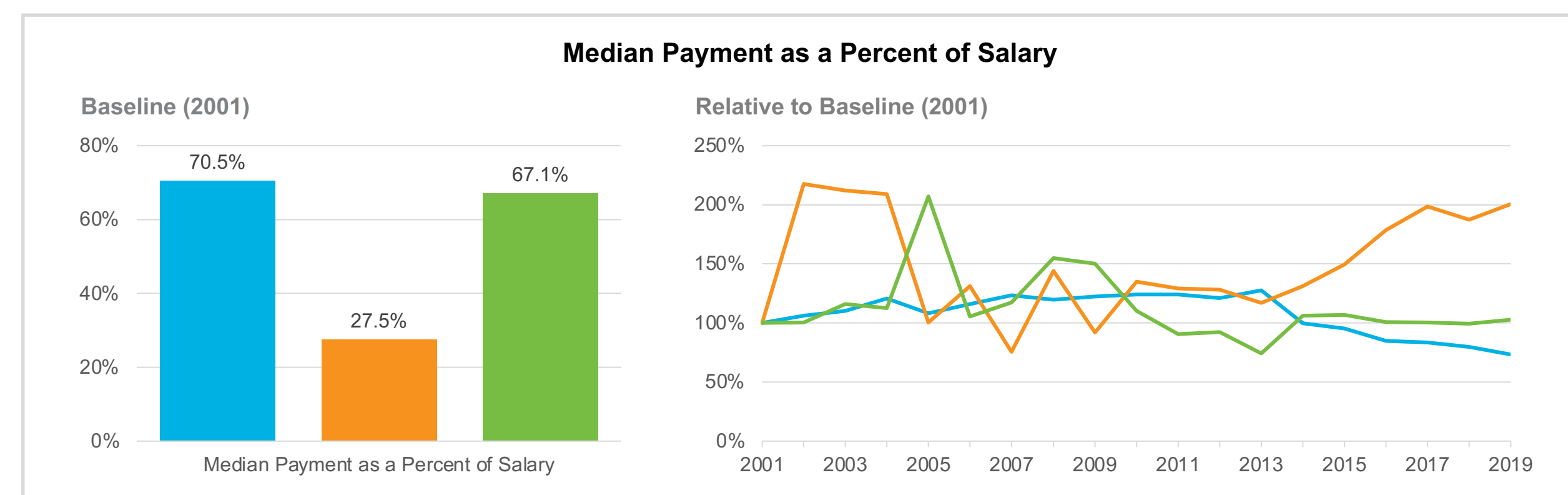
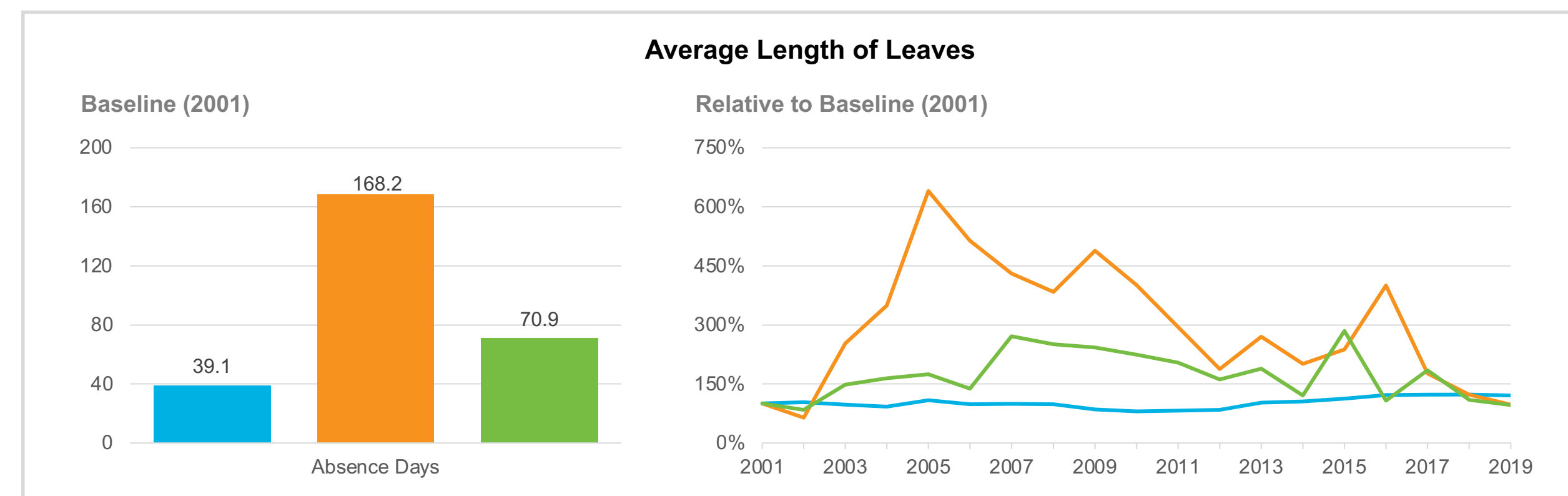
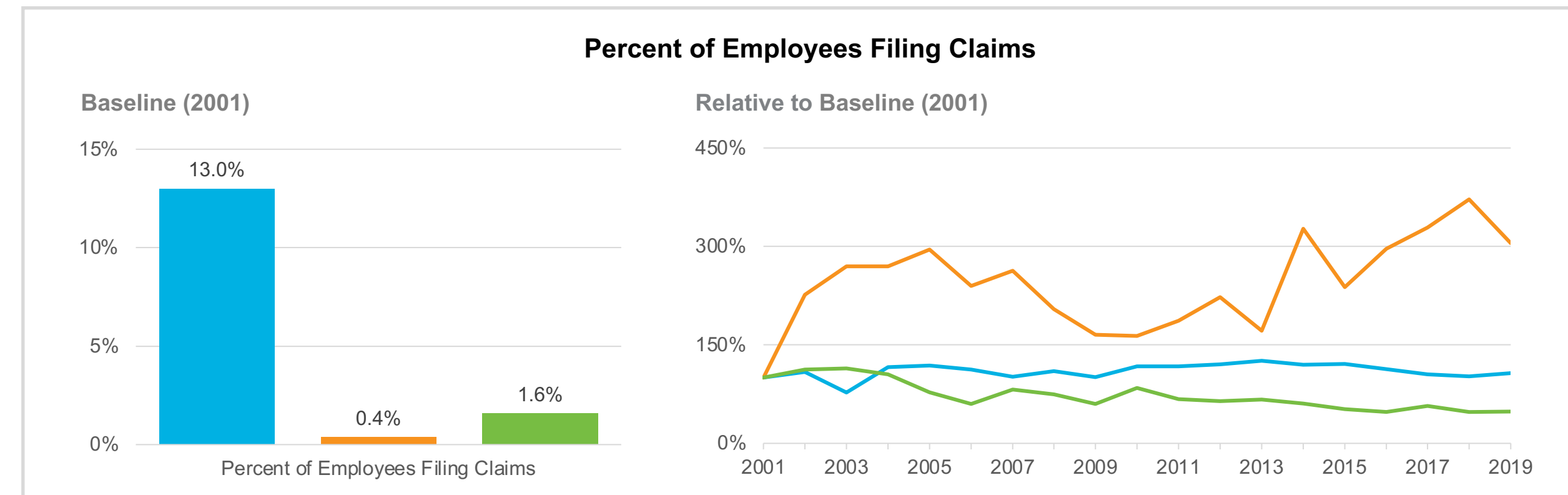


Annual Charlson Comorbidity Index Scores



Results

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



Most Impacted Years

| | STD | LTD | WC |
|-------------------------|------|------|------|
| Highest median payments | 2013 | 2002 | 2005 |
| Longest claim lengths | 2018 | 2005 | 2015 |

Conclusions

- The percent of employees with headaches and migraines has remained relatively constant over the time period, but 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 with long-term disability and workers' compensation having the most changes.
- 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.

References

- The 2020 Kaiser Family Foundation Survey of Employer Health Benefits. Available at: http://files.kff.org/attachment/Report_Employer-Health-Benefits-2020-Annual-Survey.pdf.
- Kleinman NL, et al. *Epilepsy Res.* 2012;102(1-2):13-22.
- Brook RA, et al. *Am Health Drug Benefits.* 2018;11(8):396-403.
- Kleinman NL, et al. *J Occup Environ Med.* 2009;51(11):1247-55.
- Su J, et al. *Hepatology.* 2010 Aug;52(2):436-42.
- Baran RW, et al. *J Med Econ.* 2015;18(9):691-703.
- Riberio-Oliveria A, Jr. *J Medical Economics.* 2021 In press.
- Charlson ME, et al. *J Chronic Dis.* 1987;40:373-83.