

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 benefits[1] 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 osteoarthritis.

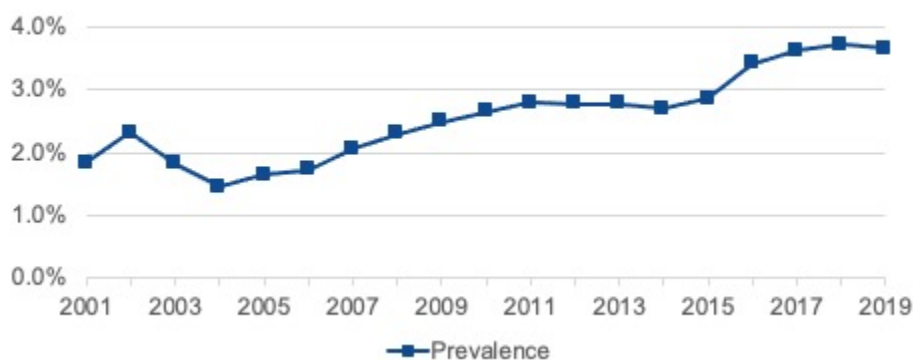
STUDY POPULATION

- 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:
 - Rheumatoid arthritis[2] and gout[3] [4].
 - Specialty pharmacy-managed conditions such as Hepatitis-C[5] [6] and acromegaly[7].
 - Various other conditions.

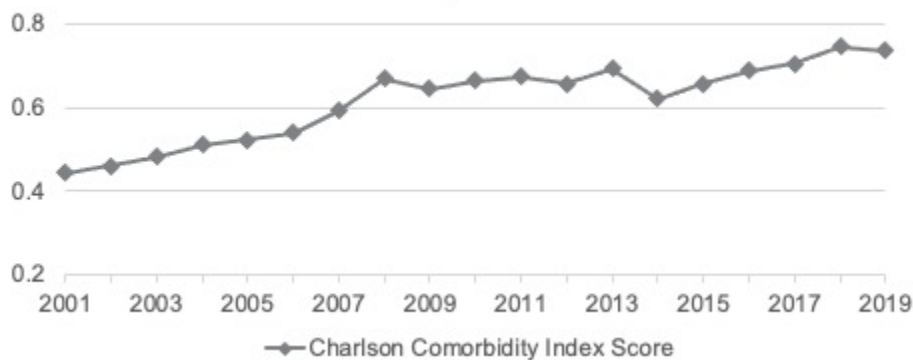
METHODS

- Retrospective analysis of US employees in each year with medical claims in the Workpartners RRD_b from the US Agency for Healthcare Research and Quality (AHRQ) osteoarthritis category.
- For osteoarthritis, each year the analysis focused on:
 - The prevalence and Charlson Comorbidity Index score[8] 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

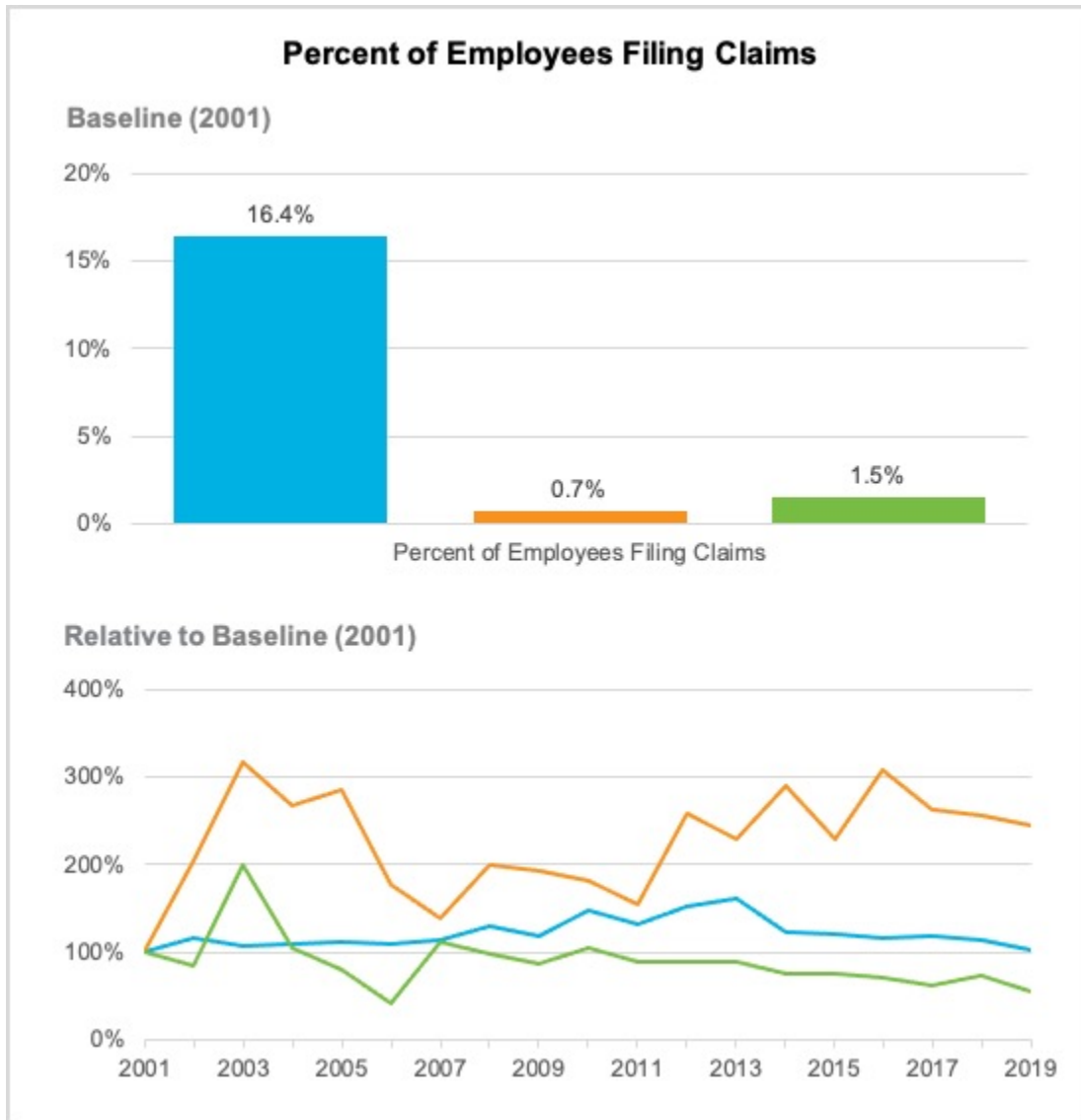


Annual Charlson Comorbidity Index Scores

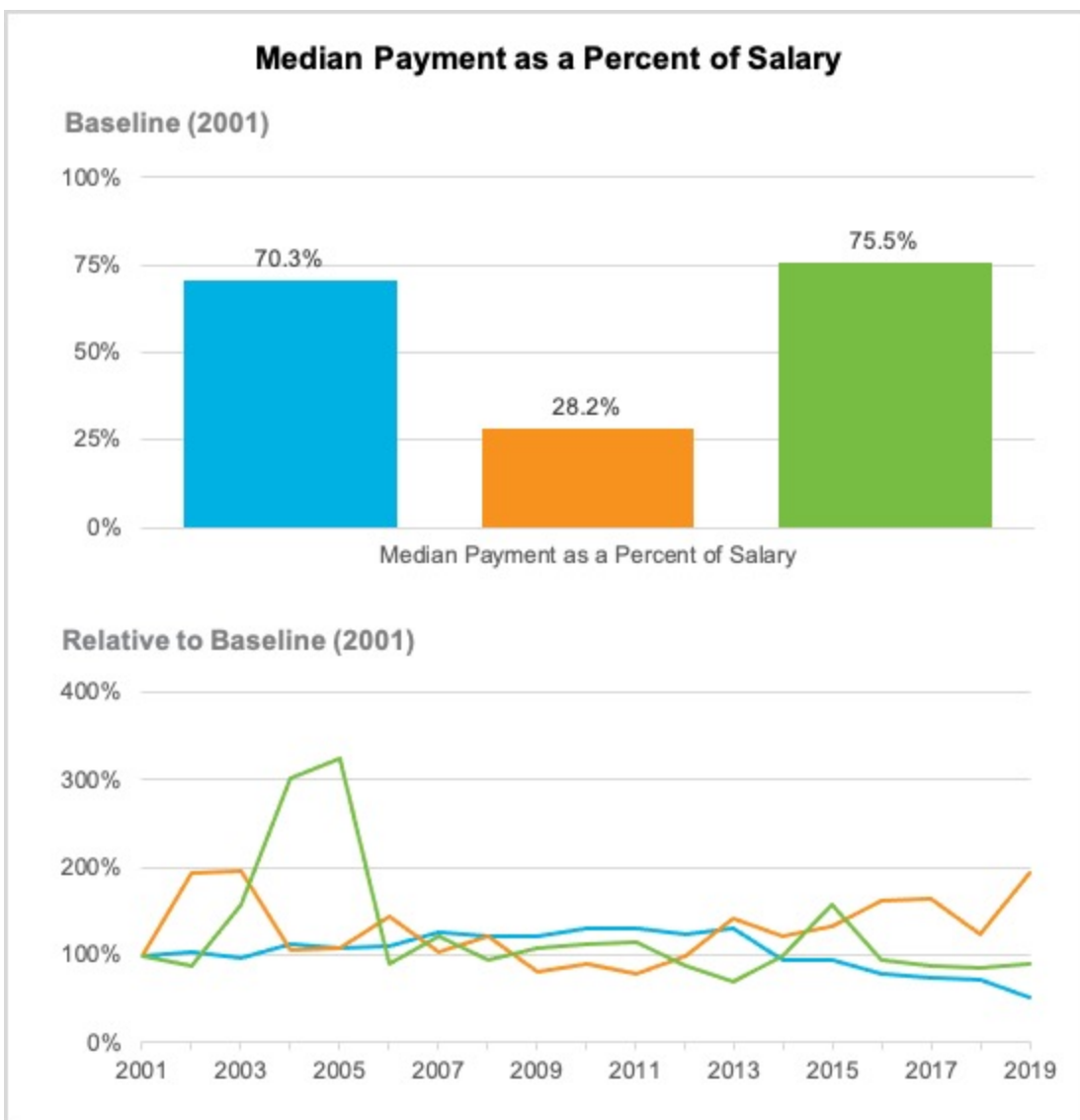


RESULTS

Legend: ■ Short-term Disability ■ Long-term Disability ■ Workers' Compensation







Most Impacted Years

	STD	LTD	WC
Highest median payments	2011	2003	2005
Longest claim lengths	2019	2005	2007

CONCLUSIONS

- The percent of employees with osteoarthritis 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.

REFERENCES

- 1 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.
- 2 Kleinman NL, et al. J Occup Environ Med. 2013;55(3):240-4
- 3 Brook RA, et al. Curr Med Res Opin. 2006;22(7):1381-9.
- 4 Kleinman NL, et al. Value Health. 2007;10(4):231-7.
- 5 Su J, et al. Hepatology. 2010 Aug;52(2):436-42.
- 6 Baran RW, et al. J Med Econ. 2015;18(9):691-703.
- 7 Riberio-Oliveria A, Jr. J Medical Economics. 2021 In press.
- 8 Charlson ME, et al. J Chronic Dis. 1987;40:373-83.