

BACKGROUND

Reports of workplace violence (WPV) in healthcare have garnered increasing attention due to the impact on health care worker well-being and retention. Despite this, there is limited understanding of whether and how WPV rates vary by facility type and occupation which limits the ability of policies to target interventions. This study investigates trends in WPV for different types of health care workers and different health care facilities over a ten-year period.

METHODS

Publicly available data were drawn from the Bureau of Labor Statistics Survey of Occupational Injuries and Illness (SOII) from 2011 to 2021/2022. SOII data include annual employer reported injuries that occur within a US-based employment setting. We included 45 occupations within the Healthcare Practitioners and Technical Occupations and Healthcare Support Occupations categories. We included 17 North American Industry Classification System codes that fall within Health Care and Social Assistance Industry. We calculated average annual rates of WPV by occupation and industry (between 2011 and 2021/2022). To assess whether annual averages were sensitive to outliers, we calculated rates without occupations or industries that fell above the 95th percentile. To assess whether year-to-year changes were statistically significant we employed linear mixed effects modeling.



Trends in Workplace Violence for Health Care Occupations and Facilities over the Last 10 Years

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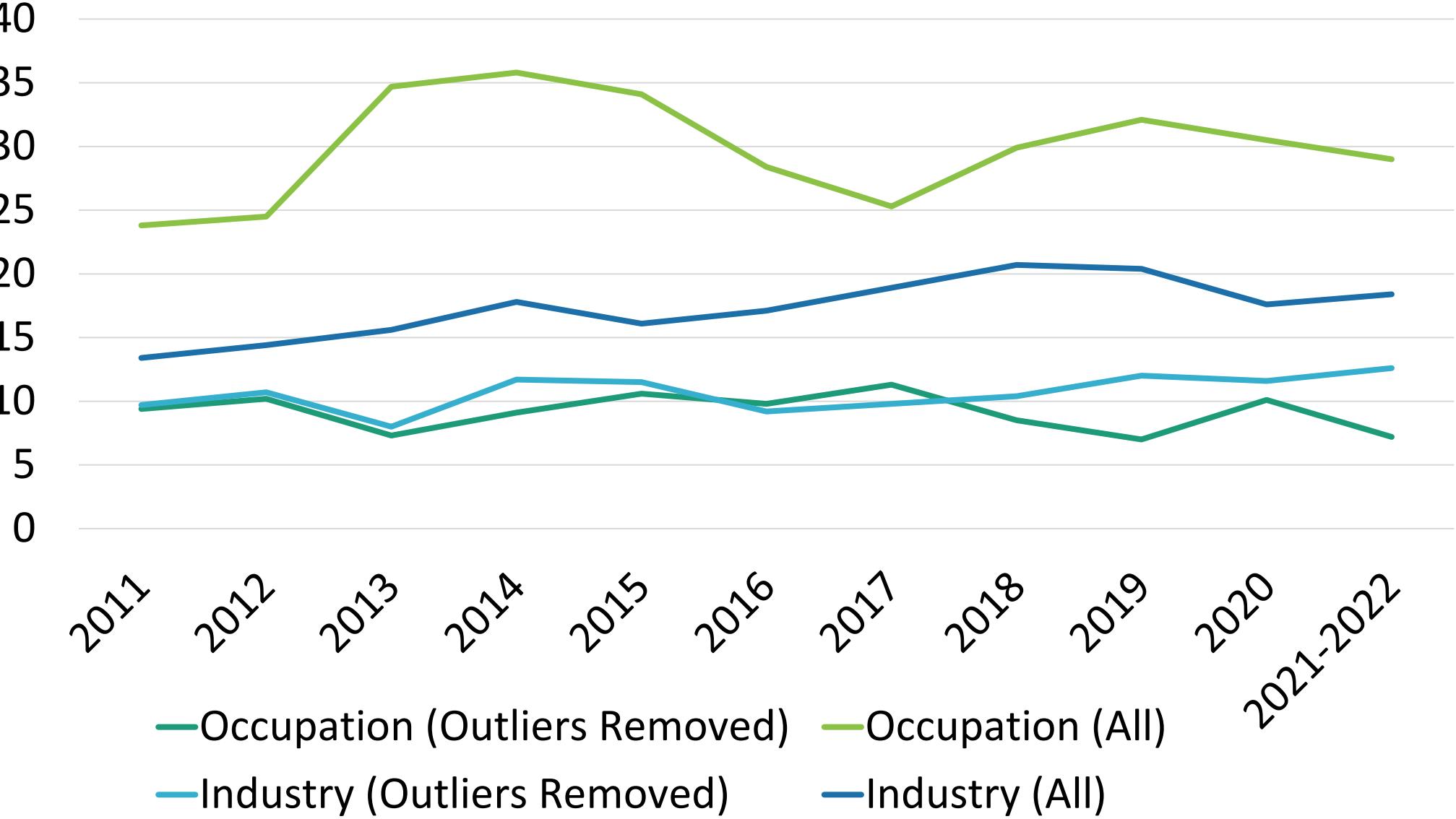
RESULTS

For industries, the rate of WPV per 10,000 workers increased from 13.4 in 2011 to 18.4 in 2021/2022. The average rate of WPV in occupations also increased from 23.8 per 10,000 workers in 2011 to 29.0 in 2021/2022. After excluding outliers, trends over time for occupations were attenuated, with a rate of 9.4 in 2011 and a rate of 7.2 in 2021/2022. An upward trend remained for industries when outliers were excluded, with a rate of 9.7 in 2011 and rate of 12.6 in 2021/2022. Model findings reveal a 30% increase across health facility types between 2011 and 2021/22; however, there was no statistically significant difference in the average rate of WPV for health care occupations over the same period. Time was significantly associated with annual rates of WPV among industries (b = 0.71, p = 0.03); that is on average, annual rates of WPV increased by 0.71 incidents per 10,000 workers per year across industries. Results from this model retained a significant and positive association in the absence of outlier industries, with annual rates of WPV increased by 0.34 incidents per 10,000 workers per year for industries (b = 0.34, p<.001).

Estimated Rates of Workplace Violence Over Time Across Healthcare Occupations and Industries				
Year ^a	Occupation (Outliers Removed) ^c	Occupation (All)	Industry (Outliers Removed) ^c	Industry (All)
2011	8.8	20.1	9.3	13.0
2012	9.0	21.2	9.7	13.7
2013	9.2	22.4	10.0	14.4
2014	9.3	23.5	10.4	15.1
2015	9.5	24.6	10.7	15.8
2016	9.6	25.8	11.0	16.5
2017	9.8	26.9	11.4	17.2
2018	9.9	28.1	11.7	17.9
2019	10.1	29.2	12.1	18.6
2020	10.2	30.3	12.4	19.3
2021-2022 ^b	7.2	29.0	12.6	18.4
Average Annual Rate of Change from 2011 to 2020	0.16 (ns; p = 0.26)	1.14 (ns; p = 0.30)	0.34***	0.71*
# of units	42	45	17	18
# of observations	189	210	147	162

^aAnnual estimates were derived from linear mixed effects models, with annual rates nested in units (e.g., occupation, industry). ^bEstimate represents the average 2021-2022 biannual rate across units. ^cCases with rates greater than 50 were treated as outliers; a rate of 50 was around the 95th percentile in the overall distribution of rates across cases. *p<.05; ***p<.001; ns = non-significant (p > .05)

Average Annual Rates of Workplace Violence Over Time Across Healthcare Occupations and Industries



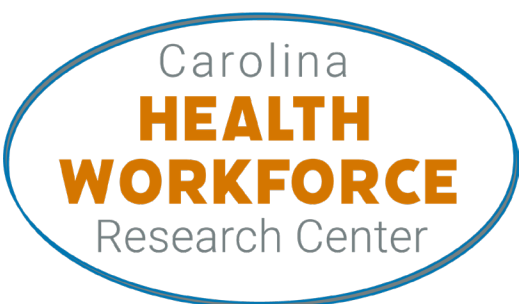
POLICY IMPLICATIONS

The increase in WPV began long before the pandemic, suggesting larger, systemic issues are likely driving WPV. Existing state and organizational efforts aim to mitigate WPV, yet understanding variations will inform tailored strategies to safeguard healthcare workers.

FUNDING

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