Supplemental content for: Power outages and cardiovascular and respiratory hospitalizations among US older adults

Supplemental Table 1: Distribution of power outage exposure by potential confounders for main analysis of county-level 8+ hour power outage exposure and CVD and respiratory hospitalizations in US 2018 Fee-For-Service Medicare beneficiaries.

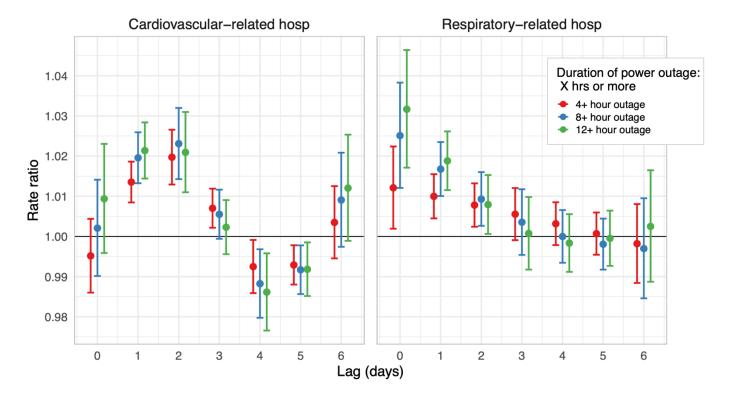
Proportion of county-days with 8+ hour power outage affecting ≥1% of county customers by potential confounder quartiles

| Wind speed | | | | | | | | |
|---------------------------|------------|-------|--|--|--|--|--|--|
| | Quartile 1 | 0.009 | | | | | | |
| | Quartile 2 | 0.009 | | | | | | |
| | Quartile 3 | 0.010 | | | | | | |
| | Quartile 4 | 0.022 | | | | | | |
| Precipitation | | | | | | | | |
| | Quartile 1 | 0.013 | | | | | | |
| | Quartile 2 | 0.014 | | | | | | |
| | Quartile 3 | 0.012 | | | | | | |
| | Quartile 4 | 0.011 | | | | | | |
| Daily maximum temperature | | | | | | | | |
| | Quartile 1 | 0.022 | | | | | | |
| | Quartile 2 | 0.012 | | | | | | |
| | Quartile 3 | 0.009 | | | | | | |
| | Quartile 4 | 0.008 | | | | | | |

Supplemental Table 2: Rate ratios and 95% confidence intervals for the association between county-level 8+ hour power outage exposure and CVD and respiratory hospitalizations in US 2018 Fee-For-Service Medicare beneficiaries for outages affecting ≥1%, ≥3%, and ≥5% of county electrical customers. Estimates are from conditional Poisson regression models adjusted for daily wind speed, temperature, and precipitation.

CVD, cardiovascular disease; Resp, respiratory disease.

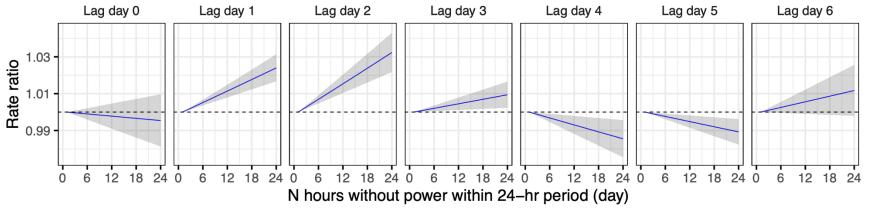
| Power outage | Outcome | | | | | | | |
|-----------------|---------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| cut point | type | Lag day 0 | Lag day 1 | Lag day 2 | Lag day 3 | Lag day 4 | Lag day 5 | Lag day 6 |
| | | 1.002, | 1.020, | 1.023, | 1.006, | 0.988, | 0.992, | 1.009, |
| 1% | CVD | [0.99, 1.014] | [1.013, 1.026] | [1.014, 1.032] | [0.999, 1.012] | [0.98, 0.997] | [0.986, 0.998] | [0.997, 1.021] |
| | | 1.016, | 1.027, | 1.027, | 1.009, | 0.993, | 0.995, | 1.009, |
| 3% | CVD | [0.999, 1.032] | [1.018, 1.036] | [1.015, 1.039] | [1.001, 1.018] | [0.981, 1.005] | [0.987, 1.003] | [0.993, 1.025] |
| | | 1.025, | 1.031, | 1.029, | 1.014, | 1.000, | 1.000, | 1.010, |
| 5% | CVD | [1.005, 1.045] | [1.021, 1.042] | [1.014, 1.044] | [1.004, 1.024] | [0.986, 1.014] | [0.991, 1.01] | [0.991, 1.03] |
| | | 1.025, | 1.017, | 1.009, | 1.004, | 1.000, | 0.998, | 0.997, |
| 1% | Resp | [1.012, 1.038] | [1.01, 1.024] | [1.003, 1.016] | [0.995, 1.012] | [0.993, 1.007] | [0.992, 1.004] | [0.985, 1.01] |
| | | 1.052, | 1.031, | 1.013, | 1.001, | 0.997, | 0.999, | 1.004, |
| 3% | Resp | [1.034, 1.071] | [1.022, 1.04] | [1.004, 1.022] | [0.99, 1.012] | [0.988, 1.006] | [0.99, 1.007] | [0.987, 1.021] |
| | | 1.067, | 1.039, | 1.016, | 1.001, | 0.997, | 1.001, | 1.009, |
| 5% | Resp | [1.046, 1.089] | [1.029, 1.05] | [1.005, 1.027] | [0.988, 1.014] | [0.987, 1.008] | [0.991, 1.011] | [0.988, 1.029] |



Supplemental Figure 1: Rate ratios and 95% confidence intervals for the association between county-level 8+ hour power outage exposure and CVD and respiratory hospitalizations in US 2018 Fee-For-Service Medicare beneficiaries for 4+, 8+, and 12+ hour power outages affecting ≥1% of county customers. Estimates are from conditional Poisson regression models adjusted for daily wind speed, temperature, and precipitation.

Supplemental Figure 2: Rate ratios and 95% confidence intervals for the association between county-level daily number of hours without power and cardiovascular- and respiratory-related hospitalizations in US 2018 Medicare Fee-For-Service beneficiaries. Estimates are from conditional Poisson regression models adjusted for daily wind speed, temperature, and precipitation. Results are from the best fitting model tested based on qAIC comparison, with a linear relationship between number of hours without power and respiratory hospitalizations or CVD hospitalizations, and 4 degrees of freedom on the lag dimension.

Cardiovasular-related hospitalizations



Respiratory-related hospitalizations

