Supplementary Online Content

Powell WR, Buckingham WR, Larson JL, et al. Association of neighborhood-level disadvantage with Alzheimer disease neuropathology. JAMA Netw Open. 2020;3(6):e207559. doi:10.1001/jamanetworkopen.2020.7559

eFigure. Putting Tissue in Context: Linking Neighborhood Social Determinants of Health to Alzheimer’s Disease Neuropathology

eTable 1. Unadjusted and Adjusted Main and Sensitivity Model Results

eTable 2. Unadjusted and Adjusted Results with Neighborhood Disadvantage Placed into Tertile Groupings Based on Study Sample

This supplementary material has been provided by the authors to give readers additional information about their work.
eFigure. Putting Tissue in Context: Linking Neighborhood Social Determinants of Health to Alzheimer’s Disease Neuropathology
### eTable 1. Unadjusted and Adjusted Main and Sensitivity Model Results

| Characteristic                          | Main AD Neuropathology Analysis<sup>b</sup> |                          |                          | Stricter AD Neuropathology Definition<sup>c</sup> |                          |                          |
|-----------------------------------------|---------------------------------------------|--------------------------|--------------------------|-------------------------------------------------|--------------------------|--------------------------|
|                                        | Unadjusted OR | 95% CI | Adjusted OR<sup>a</sup> | 95% CI | Unadjusted OR | 95% CI | Adjusted OR<sup>a</sup> | 95% CI |
| ADI neighborhood disadvantage (decile) | 1.083 | 1.082 - 1.084 | 1.081 | 1.071 - 1.091 | 1.070 | 1.059 - 1.081 | 1.068 | 1.066 - 1.071 |
| Age                                    | 1.021 | 1.014 - 1.029 |                          |                          | 1.021 | 1.013 - 1.030 |                          |                          |
| Sex                                    | 1.000 | (reference) |                          |                          | 1.000 | (reference) |                          |                          |
| Female                                 | 0.827 | 0.750 - 0.911 | 0.833 | 0.747 - 0.929 |                          |                          |                          |                          |
| Year of Death                          | 0.982 | 0.912 - 1.056 | 0.984 | 0.908 - 1.068 |                          |                          |                          |                          |

AD, Alzheimer’s disease; ADI, Area Deprivation Index; CI, confidence interval; OR, odds ratio

<sup>a</sup> Adjusted for age, sex, and year of death

<sup>b</sup> AD neuropathology defined as presence of either diffuse or neuritic plaques (n=447)

<sup>c</sup> AD neuropathology defined as presence of both diffuse and neuritic plaques (n=415)
### eTable 2. Unadjusted and Adjusted Results with Neighborhood Disadvantage Placed into Tertile Groupings Based on Study Sample

| Characteristic                           | Main AD Neuropathology Analysis<sup>b</sup> | Unadjusted OR | 95% CI      | Adjusted OR<sup>a</sup> | 95% CI      |
|------------------------------------------|---------------------------------------------|---------------|-------------|--------------------------|-------------|
| Neighborhood disadvantage tertile groups |                                             |               |             |                          |             |
| Least disadvantaged (ADI deciles 1 & 2)  |                                             | 1.000         | (reference) | 1.000                    | (reference) |
| Middle disadvantaged (ADI deciles 3 & 4) |                                             | 1.170         | 1.152 - 1.189 | 1.130                      | 1.068 - 1.196 |
| Most disadvantaged (ADI deciles 5 to 10)|                                             | 1.274         | 1.038 - 1.564 | 1.262                      | 1.103 - 1.445 |
| Age                                      |                                             |               |             | 1.022                    | 1.016 - 1.028 |
| Sex                                      |                                             |               |             |                          |             |
| Female                                   |                                             | 1.000         | (reference) |                          |             |
| Male                                     |                                             | 0.835         | 0.772 - 0.903 |                          |             |
| Year of Death                            |                                             | 0.984         | 0.914 - 1.058 |                          |             |

AD, Alzheimer's disease; ADI, Area Deprivation Index; CI, confidence interval; OR, odds ratio

<sup>a</sup> Adjusted for age, sex, and year of death

<sup>b</sup> AD neuropathology defined as presence of either diffuse plaques or neuritic plaques (n=447)