

Supplementary Online Content

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This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Missingness of all variables included in the analysis in the 2018 National Health Interview Survey “sample adult” population

| | Overall Missingness (%) | | | | |
|--|-------------------------|---|---------|--|---------|
| Exposure Variables | | | | | |
| Transportation Insecurity | 0.8 | | | | |
| Social Support | 1.7 | | | | |
| | | Missingness stratified by transportation insecurity | | Missingness stratified by social support | |
| | | No (%) | Yes (%) | High (%) | Low (%) |
| Covariates | | | | | |
| Gender | 0 | - | - | - | - |
| Age | 0 | - | - | - | - |
| Marital Status | 0.2 | 0.2 | 0.0 | 0.1 | 0.2 |
| Education | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 |
| Employment | <0.1 | <0.1 | 0.0 | <0.1 | <0.1 |
| Insurance | 0.5 | 0.5 | 0.0 | 0.3 | 0.6 |
| Race/Ethnicity | 0 | - | - | - | - |
| Federal Poverty Ratio | 16 | 16 | 18 | 15 | 16 |
| Personal Hx Colorectal Cancer ¹ | 0.2 | 0.2 | 0.0 | <0.1 | 0.4 |
| Personal Hx Breast Cancer ² | 0.1 | 0.1 | 0.0 | <0.1 | 0.2 |
| Personal Hx Cervical Cancer ³ | <0.1 | <0.1 | 0.0 | <0.1 | 0.1 |
| Outcome Variables | | | | | |
| Colorectal Cancer Screening ^{1,4} | 0 | - | - | - | - |
| Breast Cancer Screening ^{2,4} | 0 | - | - | - | - |
| Cervical Cancer Screening ^{3,4} | 0 | - | - | - | - |

¹Calculated within population eligible for colorectal cancer screening. ² Calculated within population eligible for breast cancer screening.

³ Calculated within population eligible for cervical cancer screening. ⁴ If a participant eligible for cancer screening answered “Don’t know” or did not answer questions about cancer screening, they were assigned to the “non-adherent” outcome group.

eTable 2A. Sociodemographic characteristics of respondents eligible for colorectal cancer screening, split by transportation insecurity

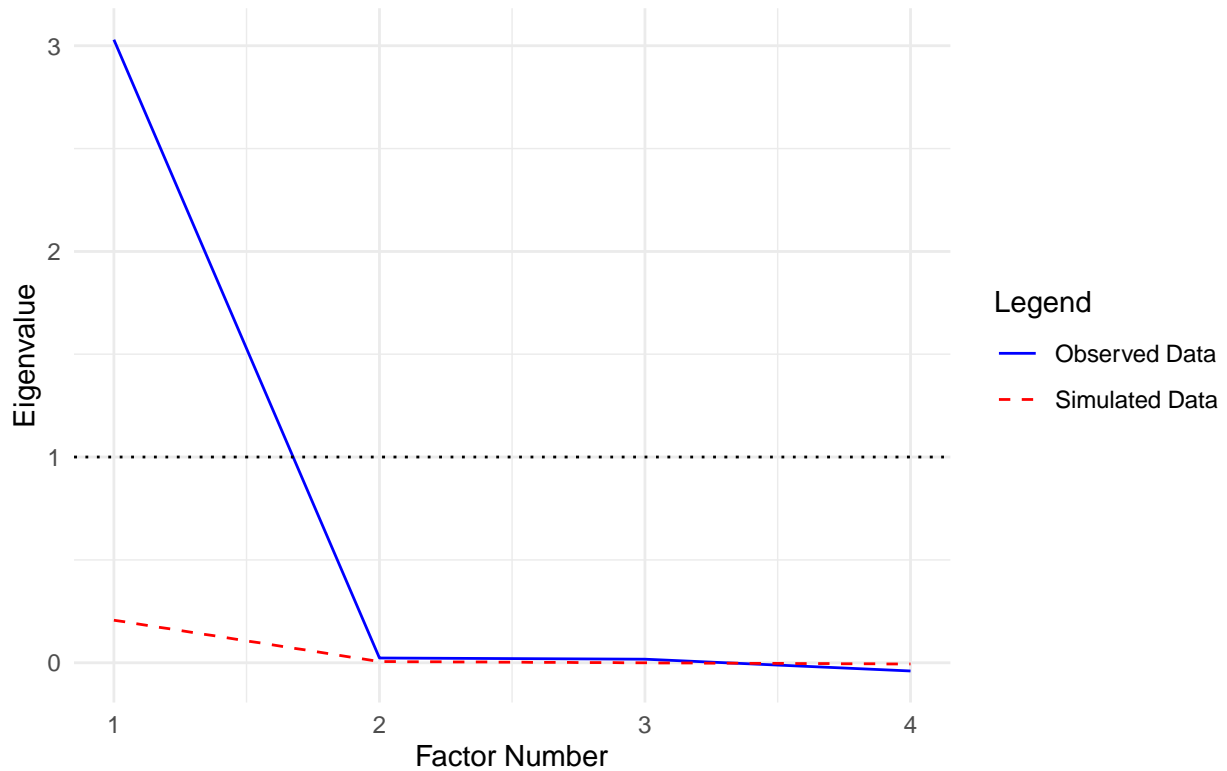
| Ever delay care in past year due to transportation? unweighted <i>n</i> = 10,736 | No (weighted %) | Yes (weighted %) |
|---|--------------------|---------------------|
| Gender | | |
| Female | 52 | 59 |
| Male | 48 | 41 |
| Age (by groups) | | |
| 50-54 | 22 | 21 |
| 55-59 | 22 | 23 |
| 60-64 | 23 | 23 |
| 65-69 | 19 | 16 |
| 70-74 | 14 | 17 |
| Marital status | | |
| Married/Living with partner | 68 | 37 |
| Divorced/Separated | 16 | 36 |
| Never married | 8 | 14 |
| Widowed | 6 | 10 |
| Unknown/Other | 1 | 3 |
| Education | | |
| Less than High School | 6 | 18 |
| High School/GED | 18 | 25 |
| Some college/Associate's Degree | 31 | 38 |
| Bachelor's Degree | 25 | 13 |
| Postgraduate Degree | 20 | 6 |
| Employment | | |
| Working for pay at a job or business | 52 | 15 |
| Looking for work | 2 | 5 |
| Not working at a job or business and not looking for work | 42 | 77 |
| Insurance | | |
| Insured | 94 | 91 |
| Uninsured | 6 | 9 |
| Race/Ethnicity | | |
| Hispanic | 12 | 15 |
| Non-Hispanic White | 71 | 52 |
| Non-Hispanic Asian | 5 | 4 |
| Non-Hispanic Black | 11 | 27 |
| Non-Hispanic Other | 1 | 3 |
| Personal history of colorectal cancer | | |
| No | 99 | 98 |
| Yes | 1 | 2 |
| Federal Poverty Ratio | | |
| Median | 4.01 | 1.31 |
| Interquartile Range | 2.18 – 6.60 | 0.78 – 2.12 |

eTable 2B. Sociodemographic characteristics of respondents eligible for breast cancer screening, split by transportation insecurity

| Ever delay care in past year due to transportation? (unweighted <i>n</i> = 5,823) | No (weighted %) | Yes (weighted %) |
|--|--------------------|---------------------|
| Age (by groups) | | |
| 50-54 | 22 | 21 |
| 55-59 | 22 | 21 |
| 60-64 | 23 | 22 |
| 65-69 | 19 | 19 |
| 70-74 | 15 | 17 |
| Marital Status | | |
| Married/Living with partner | 64 | 34 |
| Divorced/Separated | 19 | 37 |
| Never married | 7 | 11 |
| Widowed | 9 | 15 |
| Other | 1 | 2 |
| Education | | |
| Less than High School | 6 | 16 |
| High School/GED | 18 | 24 |
| Some college/Associate's Degree | 32 | 40 |
| Bachelor's Degree | 24 | 16 |
| Postgraduate Degree | 20 | 4 |
| Employment | | |
| Working for pay at a job or business | 47 | 15 |
| Looking for work | 2 | 6 |
| Not working at a job or business and not looking for work | 47 | 77 |
| Other | 4 | 2 |
| Insurance | | |
| Insured | 94 | 94 |
| Uninsured | 6 | 6 |
| Race/Ethnicity | | |
| Hispanic | 12 | 14 |
| Non-Hispanic White | 70 | 54 |
| Non-Hispanic Asian | 5 | 5 |
| Non-Hispanic Black | 11 | 24 |
| Non-Hispanic Other | 1 | 2 |
| Personal history of breast cancer | | |
| No | 94 | 93 |
| Yes | 6 | 7 |
| Federal Poverty Ratio | | |
| Median | 3.87 | 1.15 |
| Interquartile Range | 2.08 – 6.45 | 0.71 – 1.93 |

eTable 2C. Sociodemographic characteristics of respondents eligible for cervical cancer screening, split by transportation insecurity

| Ever delay care in past year due to transportation? (unweighted <i>n</i> = 7,932) | No (weighted %) | Yes (weighted %) |
|--|--------------------|---------------------|
| Age (by groups) | | |
| 21-34 | 37 | 35 |
| 35-49 | 33 | 30 |
| 50-65 | 30 | 35 |
| Marital Status | | |
| Married/Living with partner | 62 | 44 |
| Divorced/Separated | 11 | 29 |
| Never married | 23 | 23 |
| Widowed | 2 | 3 |
| Other | 1 | 1 |
| Education | | |
| Less than High School | 5 | 10 |
| High School/GED | 15 | 31 |
| Some college/Associate's Degree | 30 | 31 |
| Bachelor's Degree | 28 | 21 |
| Postgraduate Degree | 22 | 8 |
| Employment | | |
| Working for pay at a job or business | 69 | 34 |
| Looking for work | 3 | 15 |
| Not working at a job or business and not looking for work | 24 | 48 |
| Other | 4 | 3 |
| Insurance | | |
| Insured | 89 | 84 |
| Uninsured | 11 | 16 |
| Race/Ethnicity | | |
| Hispanic | 19 | 21 |
| Non-Hispanic White | 59 | 47 |
| Non-Hispanic Asian | 8 | 7 |
| Non-Hispanic Black | 13 | 20 |
| Non-Hispanic Other | 1 | 4 |
| Personal history of cervical cancer | | |
| No | 99 | 98 |
| Yes | 1 | 2 |
| Federal Poverty Ratio | | |
| Median | 3.51 | 1.15 |
| Interquartile Range | 1.80 – 5.95 | 0.69 – 2.14 |



eFigure 1. Scree plot demonstrating 1-factor solution for exploratory factor analysis of all neighborhood social support variables. A single-factor solution is also accurate by Kaiser’s criteria (retain factors with Eigenvalues > 1). Parallel analysis (simulated data) would suggest a 3-factor solution, but the difference between Eigenvalues for the observed and simulated data for factors 2 & 3 is negligible, again suggesting a 1-factor solution.

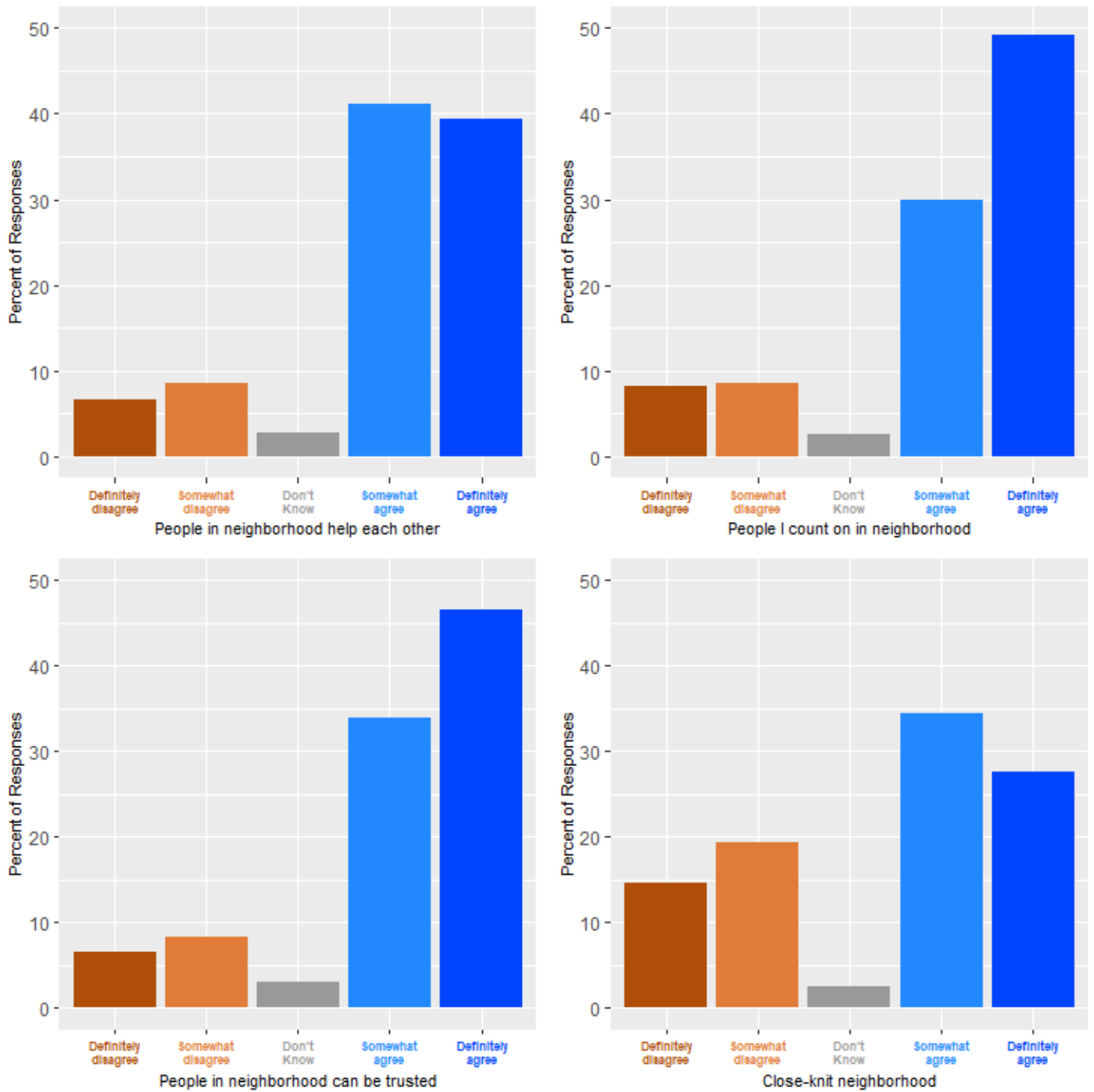
eTable 3A. Factor loadings

| Item | Factor loading [95%CI] |
|--|------------------------|
| There are people I can count on in this neighborhood | 0.90 [0.90, 0.90] |
| People in this neighborhood help each other out | 0.90 [0.90, 0.90] |
| This is a close-knit neighborhood | 0.83 [0.82, 0.83] |
| People in this neighborhood can be trusted | 0.85 [0.84, 0.85] |

eTable 3B. Indeterminacy indices and validity coefficients for exploratory factor analysis

| Measure ¹ | Guideline ² | Factor 1 |
|---|--|----------|
| Indeterminacy Indices | | |
| Correlation of (regression) scores with factors | 0 – 1, high values desirable | 0.96 |
| Multiple R square of scores with factors | 0 – 1, high values desirable | 0.93 |
| Minimum correlation of possible factor scores | -1 – 1, high positive values desirable | 0.86 |
| Validity coefficient | -1 – 1, high positive values desirable, should exceed 0.80 | 0.96 |

¹Grice's final two measures for evaluating factor score approximations, univocality and correlational accuracy, cannot be calculated from a single factor solution as they are based on factor score matrices. ²Guidelines for interpretation provided from Grice 2001.



eFigure 2. Distributions of the four neighborhood social support items included in the 2018 NHIS survey. Most Americans somewhat or definitely agree that people in their neighborhood help each other out (81.7%), that there are people they can count on in their neighborhood (80.6%), that people in their neighborhood can be trusted (81.8%), and a weaker majority believes that they live in a close-knit neighborhood (63.0%).

eTable 4A. Sociodemographic characteristics of respondents eligible for colorectal cancer screening, split by median neighborhood social support

| Neighborhood Social Support (Unweighted <i>n</i> = 10,736) | Low (weighted %) | High (weighted %) |
|---|---------------------|----------------------|
| Gender | | |
| Female | 51 | 53 |
| Male | 49 | 47 |
| Age (by groups) | | |
| 50-54 | 24 | 21 |
| 55-59 | 23 | 21 |
| 60-64 | 22 | 24 |
| 65-69 | 18 | 19 |
| 70-74 | 14 | 15 |
| Marital status | | |
| Married/Living with partner | 62 | 72 |
| Divorced/Separated | 20 | 14 |
| Never married | 10 | 7 |
| Widowed | 7 | 6 |
| Unknown/Other | 2 | 1 |
| Education | | |
| Less than High School | 8 | 5 |
| High School/GED | 19 | 17 |
| Some college/Associate's Degree | 33 | 30 |
| Bachelor's Degree | 23 | 26 |
| Postgraduate Degree | 17 | 22 |
| Employment | | |
| Working for pay at a job or business | 51 | 51 |
| Looking for work | 3 | 2 |
| Not working at a job or business and not looking for work | 44 | 43 |
| Insurance | | |
| Insured | 92 | 95 |
| Uninsured | 8 | 5 |
| Race/Ethnicity | | |
| Hispanic | 15 | 9 |
| Non-Hispanic White | 63 | 77 |
| Non-Hispanic Asian | 6 | 5 |
| Non-Hispanic Black | 14 | 9 |
| Non-Hispanic Other | 2 | 1 |
| Personal history of colorectal cancer | | |
| No | 99 | 99 |
| Yes | 1 | 1 |
| Federal Poverty Ratio | | |
| Median | 3.32 | 4.48 |
| Interquartile Range | 1.71 – 5.78 | 2.45 – 7.23 |

eTable 4B. Sociodemographic characteristics of respondents eligible for breast cancer screening, split by median neighborhood social support

| Neighborhood Social Support (unweighted <i>n</i> = 5,823) | Low (weighted %) | High (weighted %) |
|--|---------------------|----------------------|
| Age (by groups) | | |
| 50-54 | 23 | 21 |
| 55-59 | 23 | 21 |
| 60-64 | 22 | 23 |
| 65-69 | 19 | 18 |
| 70-74 | 13 | 16 |
| Marital Status | | |
| Married/Living with partner | 58 | 68 |
| Divorced/Separated | 22 | 16 |
| Never married | 10 | 5 |
| Widowed | 9 | 9 |
| Other | 1 | 1 |
| Education | | |
| Less than High School | 8 | 5 |
| High School/GED | 19 | 17 |
| Some college/Associate's Degree | 34 | 31 |
| Bachelor's Degree | 22 | 26 |
| Postgraduate Degree | 17 | 22 |
| Employment | | |
| Working for pay at a job or business | 46 | 46 |
| Looking for work | 3 | 1 |
| Not working at a job or business and not looking for work | 49 | 48 |
| Other | 3 | 4 |
| Insurance | | |
| Insured | 93 | 96 |
| Uninsured | 7 | 4 |
| Race/Ethnicity | | |
| Hispanic | 16 | 9 |
| Non-Hispanic White | 62 | 76 |
| Non-Hispanic Asian | 6 | 5 |
| Non-Hispanic Black | 14 | 10 |
| Non-Hispanic Other | 1 | 1 |
| Personal history of breast cancer | | |
| No | 95 | 94 |
| Yes | 5 | 6 |
| Federal Poverty Ratio | | |
| Median | 3.13 | 4.32 |
| Interquartile Range | 1.58 – 5.42 | 2.37 – 7.10 |

eTable 4C. Sociodemographic characteristics of respondents eligible for cervical cancer screening, split by median neighborhood social support

| Neighborhood Social Support (unweighted <i>n</i> = 7,932) | Low (weighted %) | High (weighted %) |
|--|---------------------|----------------------|
| Age (by groups) | | |
| 21-34 | 42 | 30 |
| 35-49 | 32 | 34 |
| 50-65 | 26 | 35 |
| Marital Status | | |
| Married/Living with partner | 56 | 69 |
| Divorced/Separated | 12 | 10 |
| Never married | 28 | 18 |
| Widowed | 2 | 2 |
| Other | 2 | 1 |
| Education | | |
| Less than High School | 6 | 4 |
| High School/GED | 18 | 13 |
| Some college/Associate's Degree | 34 | 27 |
| Bachelor's Degree | 26 | 30 |
| Postgraduate Degree | 17 | 27 |
| Employment | | |
| Working for pay at a job or business | 68 | 67 |
| Looking for work | 4 | 2 |
| Not working at a job or business and not looking for work | 24 | 26 |
| Other | 3 | 4 |
| Insurance | | |
| Insured | 87 | 91 |
| Uninsured | 13 | 9 |
| Race/Ethnicity | | |
| Hispanic | 24 | 14 |
| Non-Hispanic White | 50 | 69 |
| Non-Hispanic Asian | 8 | 7 |
| Non-Hispanic Black | 17 | 9 |
| Non-Hispanic Other | 1 | 1 |
| Personal history of cervical cancer | | |
| No | 100 | 99 |
| Yes | 0 | 1 |
| % of Federal Poverty Level | | |
| Median | 2.82 | 4.30 |
| Interquartile Range | 1.43 – 4.82 | 2.31 – 6.92 |

eTable 5. Effects of transportation insecurity and social support on cancer screening, in fully adjusted models including an interaction term for transportation insecurity and social support

| Cancer Screening | Eligible Population (% of 2018 US adults) | Model | OR [95% CI] |
|--|---|----------------------------------|---------------------------|
| Colorectal: FIT within 1 year, stool-DNA within 3 years, CT colonography within 5 years, flex sig within 5 years, colonoscopy within 10 years | Adults 50-74 (37%) | Transportation Insecurity | 0.89 [0.66 – 1.20] |
| | | Social Support | 1.12 [1.06 – 1.18] |
| | | Interaction | 0.94 [0.76 – 1.16] |
| Breast: Mammogram within 2 years | Women 50-74 (19%) | Transportation Insecurity | 0.60 [0.40 – 0.89] |
| | | Social Support | 1.13 [1.04 – 1.22] |
| | | Interaction | 0.93 [0.68 – 1.28] |
| Cervical: Pap within 3 years (21-30), or within 5 years (30-65) | Women 21-65 who have never had a hysterectomy (33%) | Transportation Insecurity | 0.70 [0.44 – 1.10] |
| | | Social Support | 1.01 [0.93 – 1.10] |
| | | Interaction | 0.90 [0.65 – 1.25] |

eTable 6A. Sensitivity analyses for effects of transportation security on cancer screening, with confidence intervals achieved via bootstrapping

| Cancer Screening | Eligible Population (% of 2018 US adults) | Model | Transportation Insecurity OR [95% CI] |
|---|---|-------------------|---|
| Colorectal: FIT within 1 year, stool-DNA within 3 years, CT colonography within 5 years, flex sig within 5 years, colonoscopy within 10 years | Adults 50-74 (37%) | Unadjusted | 0.72 [0.55 – 0.94] |
| | | Adjusted | 0.87 [0.66 – 1.15] |
| Breast: Mammogram within 2 years | Women 50-74 (19%) | Unadjusted | 0.47 [0.32 – 0.70] |
| | | Adjusted | 0.59 [0.39 – 0.89] |
| Cervical: Pap within 3 years (21-30), or within 5 years (30-65) | Women 21-65 who have never had a hysterectomy (33%) | Unadjusted | 0.54 [0.36 – 0.80] |
| | | Adjusted | 0.72 [0.46 – 1.13] |

eTable 6B. Sensitivity analyses for effects of neighborhood social support on cancer screening, with confidence intervals achieved via bootstrapping

| Cancer Screening | Eligible Population (% of 2018 US adults) | Model | Social Support OR [95% CI] |
|---|---|-------------------|--------------------------------------|
| Colorectal: FIT within 1 year, stool-DNA within 3 years, CT colonography within 5 years, flex sig within 5 years, colonoscopy within 10 years | Adults 50-74 (37%) | Unadjusted | 1.22 [1.16 – 1.28] |
| | | Adjusted | 1.12 [1.06 – 1.18] |
| Breast: Mammogram within 2 years | Women 50-74 (19%) | Unadjusted | 1.19 [1.11 – 1.29] |
| | | Adjusted | 1.13 [1.05 – 1.22] |
| Cervical: Pap within 3 years (21-30), or within 5 years (30-65) | Women 21-65 who have never had a hysterectomy (33%) | Unadjusted | 1.14 [1.06 – 1.22] |
| | | Adjusted | 1.01 [0.93 – 1.10] |

eTable 6C. Sensitivity analyses for effects of transportation security and social support on cancer screening, adjusted for visit with primary care provider in the past year in addition to all other covariates

| Cancer Screening | Eligible Population (% of 2018 US adults) | Model | OR [95% CI] |
|--|---|----------------------------------|---------------------------|
| Colorectal: FIT within 1 year, stool-DNA within 3 years, CT colonography within 5 years, flex sig within 5 years, colonoscopy within 10 years | Adults 50-74 (37%) | Transportation Insecurity | 0.84 [0.62 – 1.13] |
| | | Social Support | 1.13 [1.07 – 1.20] |
| Breast: Mammogram within 2 years | Women 50-74 (19%) | Transportation Insecurity | 0.58 [0.39 – 0.85] |
| | | Social Support | 1.15 [1.05 – 1.25] |
| Cervical: Pap within 3 years (21-30), or within 5 years (30-65) | Women 21-65 who have never had a hysterectomy (33%) | Transportation Insecurity | 0.69 [0.44 – 1.08] |
| | | Social Support | 1.01 [0.93 – 1.11] |

This is a sensitivity analysis which includes a covariate which asked if participants had seen or talked to a general doctor who treats a variety of illnesses (a doctor in general practice, family medicine, or internal medicine) during the past 12 months