|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|   |   | Mid Esophagus | DEGC | Stomach | Pancreas | Colon | Rectum |
| Disparity (HR - 1) | Baseline disparity (total effect) | 0.422 | 0.371 | 0.008 | 0.120 | 0.218 | 0.357 |
| Fully adjusted ('direct' effect\*) | 0.041 | 0.026 | -0.075 | -0.079 | 0.095 | 0.135 |
| Single variable contributions (unadjusted indirect effects / change in HR with variable inclusion) | Surgery given | 0.272 | 0.250 | 0.078 | 0.126 | 0.055 | 0.116 |
| Chemo given | -0.008 | 0.009 | -0.002 | 0.020 | -0.006 | -0.003 |
| Radiation given | 0.015 | 0.033 | 0.000 | 0.005 | -0.004 | -0.002 |
| Stage at diagnosis | 0.068 | 0.038 | 0.020 | 0.026 | 0.003 | -0.006 |
| Zip income quartile | 0.095 | 0.069 | 0.047 | 0.066 | 0.070 | 0.097 |
| Insurance type | 0.090 | 0.082 | 0.011 | 0.024 | 0.041 | 0.072 |
| Charlson score | 0.012 | 0.013 | 0.009 | 0.011 | 0.029 | 0.024 |
| Sex | -0.007 | -0.006 | 0.000 | -0.003 | -0.012 | -0.016 |
| Histology category | 0.121 | 0.101 | -0.034 | 0.000 | -0.004 | -0.002 |
| Grade | -0.010 | -0.024 | -0.031 | 0.030 | -0.018 | -0.001 |
| Hospital volume | -0.006 | 0.062 | -0.010 | 0.004 | -0.007 | -0.005 |
| Region | 0.017 | 0.010 | 0.018 | 0.012 | 0.012 | 0.026 |
| Urban vs rural context | -0.008 | -0.009 | -0.011 | -0.011 | -0.012 | -0.022 |
| Facility type | -0.007 | -0.018 | -0.021 | -0.013 | -0.016 | -0.023 |
| Facility operative rate | 0.101 | 0.050 | -0.010 | 0.000 | 0.011 | 0.031 |
| Adjusted single variable contributions (adjusted indirect effects / change in HR with variable exclusion) | Surgery | 0.060 | 0.091 | 0.069 | 0.058 | 0.030 | 0.065 |
| Surgery & stage | 0.010 | 0.009 | 0.006 | 0.021 | -0.001 | -0.003 |
| Surgery & patient factors | 0.042 | 0.046 | 0.001 | 0.012 | 0.006 | 0.005 |
| Surgery & SES | 0.028 | 0.029 | 0.012 | 0.013 | 0.003 | 0.010 |
| Surgery & hospital factors | 0.032 | 0.024 | -0.011 | 0.000 | 0.007 | 0.018 |
| SES | 0.069 | 0.061 | 0.021 | 0.033 | 0.075 | 0.104 |
| Stage & SES | -0.004 | 0.003 | 0.011 | 0.001 | 0.002 | 0.001 |
| Patient factors & SES | 0.010 | 0.009 | 0.005 | 0.005 | 0.002 | 0.010 |
| SES & hospital | 0.002 | 0.018 | -0.006 | 0.015 | -0.007 | -0.007 |
| Stage | 0.007 | 0.006 | 0.019 | 0.005 | 0.009 | 0.004 |
| Stage & patient factors | 0.012 | 0.007 | -0.004 | -0.001 | -0.006 | -0.004 |
| Stage & hospital | 0.001 | 0.001 | 0.006 | 0.001 | -0.003 | -0.002 |
| Patient factors | 0.026 | -0.003 | -0.032 | 0.006 | -0.004 | 0.004 |
| Patient factors & hospital | -0.003 | 0.000 | 0.006 | 0.002 | -0.005 | -0.004 |
| Hospital factors | -0.013 | 0.003 | -0.023 | -0.005 | -0.007 | -0.016 |
| >2 categories | 0.102 | 0.041 | 0.003 | 0.033 | 0.022 | 0.037 |
| \*Although 'direct effect' is the technically correct term for the disparity that cannot be explained by any other factors in the model, race has no 'direct' effect on outcomes, since race itself is a social construction.  |

Table 4: Full mediation analysis results, Black vs White patients