

## Table S1. Notes to Table 1

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<sup>1</sup> Reported findings are from MIMIC model specifications in which I also specify the non-traditional *ordinal* items of Depression (Lonely, People Unfriendly, People Dislike Me, and Fearful) as *continuous* variables that predict Depression, allowing estimates of bi-directional relationships between each non-traditional item and Depression. Note that each continuous variable is solely predicted by an identical, overlapping instrumental variable, except for excluding values for residual depressive symptoms when CES-D < 11 (i.e., positive responses for residual symptoms are set to zero, such that positive responses are retained only in cases of subthreshold or clinically significant depression). In contrast to the stochastic or probabilistic relationships of the ordinal items (the regression portion of the MIMIC model is based on ordinal probit), we are justified in creating a continuous variable for each of the non-traditional CES-D items because the relationship between the continuous variable and its identical, overlapping instrumental variable is deterministic. These instrumental variables constitute a necessary and non-biasing source of exogenous information (i.e., from outside the model) in order to obtain an identified model with unique estimates for all parameters.

<sup>2</sup> The measurement loading ( $\lambda$  in the matrix of factor loadings,  $\Lambda$ ) of the CES-D item Depressed was fixed at 1 to set the metric of the measurement model. Estimated measurement loadings for the remaining CES-D items ranged from (A) Descriptive MIMICs: 0.316 (Hopeful) to 0.897 (Sad); and (B) Explanatory MIMICs: 0.317 (Hopeful) to 0.898 (Sad). In the (A) Descriptive MIMIC models, 13 to 16 of the 20 measurement loadings were 0.450 or greater, and in the (B) Explanatory MIMIC models, 9-17 of the 20 measurement loadings were 0.450 or greater.

<sup>3</sup> Each of the (A) Descriptive MIMIC models ( $R^2$ : 0.563 to 0.990) and each of the (B) Explanatory MIMIC models ( $R^2$ : 0.561 to 0.598) fit the data adequately. The  $R^2$  fit index is available for MIMIC models with ordinal measurement items, such as the four-category CES-D items in the current study. (Note that the MIMIC model retains the four non-traditional CES-D items as individual items that serve as "effect indicators" for estimating the pathway of the bi-directional relationship that manifests with Depression). Note that models with Hypertension or Silent CVD (Silent Cerebrovascular Disease) as interaction components were run in subsamples that excluded more progressed cerebrovascular disease (stroke, post-stroke cognitive impairment, vascular cognitive impairment) that may distort findings; comparisons are made only to those with similar levels of atherosclerosis or no vascular disease.

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<sup>4</sup> Two-tailed test significance is as follows: 1)  $z = 1.960$  ( $p = .05$ ); 2)  $z = 2.326$  ( $p = .025$ ); 3)  $z = 2.576$  ( $p = .01$ ); 4)  $z = 3.291$  ( $p = .005$ ).

<sup>5</sup> Approaches statistical significance at  $p = 0.052$ .

<sup>6</sup> Approaches statistical significance at  $p = 0.051$ .

<sup>7</sup> Approaches statistical significance at  $p = 0.056$ .

<sup>8</sup> Approaches statistical significance at  $p = 0.063$ .