

# Voters Punish Politicians with Depression

## Online Appendix

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### **Supplemental Information on the Experimental Design**

Our experimental modules rely on a paired conjoint design with vignettes contrasting the attributes of two politicians. Although we rely mainly on the health condition treatment in our analysis, the variation in other political attributes helps to make the decision process of participants less obvious. For example, the vignettes include information about policy positions on a number of salient issues. In the US survey experiment, the biographies mention each candidate's stance on abortion, gun control and taxation. For the Incumbent experiment, we revealed the fictional candidates' positions on the Affordable Care Act.

We report the full text of the experimental modules below. For each country, respondents were queried for demographic characteristics and political attitudes. Afterwards, we introduced the experimental module to participants with a preamble:

*For the following two sections, we will describe for you different hypothetical politicians. While these candidates are not real individuals, they do resemble real political candidates. For each pairing of candidates, we will give you key facts about them. We would like to know which you would be more likely to vote for, and what you think of each candidate.*

Each participant answered the two different experimental scenarios used in the module, although we randomized the order in which these scenarios are displayed.

The Open Seat experiment makes use of the vignettes printed out below. We use square brackets to indicate the information that was shuffled randomly across candidates and from

one participant to the next, using a Fisher-Yates algorithm. Unlike conjoint designs where attributes may be conditional to each other, we randomize our attributes independently. This implies that for some participants, for instance, the two candidates may share the same gender or the same occupation. The sole constraint to independent randomization of attributes concerns party affiliations, for obvious reasons: once a party is randomly assigned to a candidate, the second one automatically receives the remaining party, such that each election involves candidates of different parties. Candidate A is presented as suffering from a health issue, and the treatment of interest varies the nature of that health condition, from depression to cancer and blood pressure.

*Candidate A and Candidate B are both running for a congressional seat for the first time. There is no incumbent in the race.*

*Candidate A is a [Democrat/Republican]. Candidate B is a [Republican/Democrat].*

*Candidate A is [a Caucasian/an African-American/an Asian-American] [female/male]. [She/He] currently works as a [lawyer/doctor/small businessperson]. [She/He] has [five years of experience as a local councillor/no previous experience.] [She/He] is [35/45/55] years old.*

*Candidate A is [in good physical health but has in the past been diagnosed with depression. [Her/His] doctor recommends [she/he] be sure to take one week of leave from work each year to make sure [she/he] maintains [her/his] mental health / in good health, but in the past was treated for cancer. [Her/His] doctor recommends [she/he] be sure to take one week of leave from work each year to make sure [she/he] maintains [her/his] physical health / in generally good health, but suffers from high blood pressure].*

*Candidate A is [pro-choice/pro-life with exceptions], supports [limited/no] restrictions on gun ownership, and supports tax policies that aid [small business/those with incomes below \$50,000].*

*Candidate B is [a Caucasian/an African-American/an Asian-American] [female/male]. [She/He] currently works as a [doctor/lawyer/small businessperson]. [She/He] has [five years of experience as a local councillor/no previous experience.] [She/He] is [35/45/55] years old.*

*Candidate B is in good physical and mental health.*

*Candidate B is [pro-choice/pro-life with exceptions], supports [limited/no] restrictions on gun ownership, and supports tax policies that aid [small business/those with incomes below \$50,000].*

The context for the Incumbent experiment differs in that one of the candidate has prior experience in Congress, which introduces an asymmetry between the two politicians. Below is the full text of this second experiment:

*Candidate C and Candidate D are both running for a congressional seat. Candidate C is the incumbent and Candidate D is the challenger.*

*Candidate C is a [Democrat/Republican]. Candidate D is a [Republican/Democrat].*

*Candidate C is [a Caucasian/an African-American/an Asian-American] [female/male].*

*[She/He] previously worked as a [doctor/lawyer/small businessperson]. [She/He] is serving [her/his] first term in Congress. [She/He] is [35/45/55] years old.*

*Candidate C has a [70%/80%/90%/100%] attendance record in Congress. [She/He] is considered to be a moderate [Democrat/Republican]. [She/He] generally [supports/opposes] the Affordable Care Act, and [she/he] thinks it should be [given a few more years to see how it performs/replaced by a more market-based system].*

*During the last two years, Candidate C took a four week leave of absence after [she/he] was diagnosed with [depression/a severe case of the flu/skin cancer].*

*After attention from [her/his] physician, Candidate C returned to regular activities in Congress. Candidate C's physician believes [she/he] is once again physically and mentally fit for another term.*

*Candidate D is [a Caucasian/an African-American/an Asian-American] [female/male].*

*[She/He] currently works as a [doctor/lawyer/small businessperson]. [She/He] has never been elected to Congress. [She/He] is [35/45/55] years old.*

*Candidate D is considered to be a moderate [Republican/Democrat]. [She/He] supports no restrictions on gun ownership. [She/He] generally [supports/opposes] the Affordable Care Act, and [she/he] thinks it should be [given a few more years to see how it performs/replaced by a more market-based system].*

*Candidate D is in good physical and mental health.*

For completeness, we report the full text of the experiments for Canada. Apart from party names and substitutions of the term “Congress” for “Parliament”, the only substantive difference between the module used in the United States and the one used in Canada is the nature of the issues over which candidates take positions. We maintained the positions on abortion and taxes in the Open Seat experiment, but modified the issue of gun control (which is far less central to Canadian politics) with positions on military engagements abroad, a topic that was debated during the previous electoral campaign of 2015. In the Incumbent experiment,

we replaced positions on the Affordable Care Act with stances on universal child care, also more pertinent to the Canadian setting.

The full text for the Open Seat experiment for Canada reads as follows:

*Candidate A and Candidate B are both running for a seat in Parliament for the first time. There is no incumbent in the race.*

*Candidate A is a [Liberal/Conservative]. Candidate B is a [Conservative/Liberal].*

*Candidate A is [a Caucasian/an African-Canadian/an Asian Canadian] [female/male]. [She/He] currently works as a [lawyer/doctor/small businessperson]. [She/He] has [five years of experience as a local councillor/no previous electoral experience.] [She/He] is [35/45/55] years old.*

*Candidate A is [in good physical health but has in the past been diagnosed with depression. [Her/His] doctor recommends [she/he] be sure to take one week of leave from work each year to make sure [she/he] maintains [her/his] mental health / in good health, but in the past was treated for cancer. [Her/His] doctor recommends [she/he] be sure to take one week of leave from work each year to make sure [she/he] maintains [her/his] physical health / in generally good health, but suffers from high blood pressure].*

*Candidate A is [pro-choice/pro-life with exceptions], supports [limited/no] restrictions on military engagements abroad, and supports tax policies that aid [small business/those with incomes below \$50,000].*

*Candidate B is [a Caucasian/an African-Canadian/an Asian Canadian] [female/male]. [She/He] currently works as a [doctor/lawyer/small businessperson]. [She/He] has [five years of experience as a local councillor/no previous experience.] [She/He] is [35/45/55] years old.*

*Candidate B is in good physical and mental health.*

*Candidate B is [pro-choice/pro-life with exceptions], supports [limited/no] restrictions on military engagements abroad, and supports tax policies that aid [small business/those with incomes below \$50,000].*

As for the Incumbent experiment, we adapted the text to the Canadian survey in the following way:

*Candidate C and Candidate D are both running for a seat in Parliament. Candidate C is the incumbent and Candidate D is the challenger.*

*Candidate C is a [Liberal/Conservative]. Candidate D is a [Conservative/Liberal].*

*Candidate C is [a Caucasian/an African-Canadian/an Asian Canadian] [female/male]. [She/He] previously worked as a [doctor/lawyer/small businessperson]. [She/He] is serving [her/his] first term in Parliament. [She/He] is [35/45/55] years old.*

*Candidate C has a [70%/80%/90%/100%] attendance record in Parliament. [She/He] is considered to be a moderate [Liberal/Conservative]. [She/He] generally [supports/opposes] universal daycare.*

*During the last two years, Candidate C took a four week leave of absence after [she/he] was diagnosed with [a severe case of the flu/skin cancer/depression].*

*After attention from [her/his] physician, Candidate C returned to regular activities in Parliament. Candidate C's physician believes [she/he] is once again physically and mentally fit for another term.*

*Candidate D is a [a Caucasian/an African-American/an Asian-American] [female/male]. [She/He] currently works as a [doctor/lawyer/small businessperson]. [She/He] has never been elected to Parliament. [She/He] is [35/45/55] years old.*

*Candidate D is considered to be a moderate [Conservative/Liberal]. [She/He] supports military engagements abroad. [She/He] generally [supports/opposes] universal daycare.*

*Candidate D is in good physical and mental health.*

Tables A1 and A2 report checks on the balance of covariates across treatment groups. Even with a randomization of the candidate attributes, attrition may cause deviations from expected values. We double-check whether that characteristics are properly balanced using regression models in which we utilize the treatment group of interest (the depressive candidates) as a dependent variable. We test both respondent attributes and the random variation in the candidate profiles. For the most part, there is no statistically significant difference between treatment groups in terms of respondent variables. Two of the respondent attributes happens to be more frequent in the depression group (Republican identification for the United States, and prior experience with depression in Canada). However, we replicated models controlling for these attributes and none of the findings reported in the paper are substantively affected (models with covariates are reported below in this appendix). In fact, the level of confidence associated with the treatment effects reported in the main paper increases slightly after accounting for these attributes.

Table A1: Balance Checks (US Sample)

	Experimental Session	
	Open Seat	Incumbent
Age	-0.003 (0.005)	0.002 (0.005)
Gender	0.217 (0.152)	-0.002 (0.150)
Education	-0.002 (0.067)	0.034 (0.066)
Experience with Depression	-0.085 (0.160)	0.019 (0.160)
Republican Identifier	0.180* (0.087)	-0.031 (0.087)
Afflicted Candidate Age	-0.005 (0.009)	0.008 (0.009)
Afflicted Candidate (Gender = Male)	-0.054 (0.148)	-0.088 (0.148)
Afflicted Candidate (Race = Hispanic)	0.081 (0.183)	0.094 (0.180)
Afflicted Candidate (Race = African-American)	-0.016 (0.180)	-0.083 (0.179)
Afflicted Candidate (Party = Republican)	-0.019 (0.149)	-0.173 (0.148)
Healthy Candidate Age	-0.013 (0.009)	-0.014 (0.009)
Healthy Candidate (Gender = Male)	0.151 (0.149)	0.058 (0.147)
Healthy Candidate (Race = Hispanic)	0.149 (0.182)	-0.166 (0.184)
Healthy Candidate (Race = African-American)	0.051 (0.180)	-0.019 (0.178)
Constant	-0.368 (0.729)	-0.499 (0.733)
Observations	870	870
Log Likelihood	-532.912	-540.673
Akaike Inf. Crit.	1,095.823	1,111.347

Notes: Balance check logistic regressions with the binary treatment variable for the depression group as a dependent variable. Standard errors in parentheses.

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001.

Table A2: Balance Checks (Canadian Sample)

	Experimental Session	
	Open Seat	Incumbent
Age	0.006 (0.005)	0.001 (0.005)
Gender	-0.022 (0.158)	-0.040 (0.157)
Education	0.025 (0.073)	-0.060 (0.072)
Experience with Depression	0.182 (0.189)	0.399* (0.190)
Afflicted Candidate Age	-0.010 (0.010)	0.010 (0.010)
Afflicted Candidate (Gender = Male)	0.234 (0.157)	0.121 (0.155)
Afflicted Candidate (Race = African-Canadian)	0.238 (0.188)	0.043 (0.189)
Afflicted Candidate (Race = Asian Canadian)	0.062 (0.198)	-0.189 (0.189)
Afflicted Candidate (Party = Liberal)	0.153 (0.157)	-0.096 (0.155)
Healthy Candidate Age	-0.001 (0.010)	-0.017 (0.009)
Healthy Candidate (Gender = Male)	-0.154 (0.157)	-0.090 (0.155)
Healthy Candidate (Race = African-Canadian)	-0.158 (0.189)	-0.004 (0.189)
Healthy Candidate (Race = Asian Canadian)	-0.359 (0.194)	0.070 (0.193)
Constant	-0.860 (0.788)	-0.534 (0.737)
Observations	779	779
Log Likelihood	-477.375	-485.326
Akaike Inf. Crit.	982.749	998.651

Notes: Balance check logistic regressions with the binary treatment variable for the depression group as a dependent variable. Standard errors in parentheses.

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001.

## Methodology

For our main analysis, we estimate treatment effects using comparisons of the type  $\mathbb{E}[Y_i(D) - Y_i(0)]$ , where  $Y_i(D)$  is the vote choice of a respondent in the depression group, and  $Y_i(0)$  the choice in a comparison group, either combining the two other physical diseases or using one of them at a time. In the context of conjoint experiments, [Hainmueller et al. \(2014\)](#) refer to the quantity of interest as an average marginal component effect (AMCE). Since the randomization of the health condition is independent of the candidates' political and demographic attributes, the AMCE can be computed with estimates such as the difference in means between the treatment conditions (see [Hainmueller et al. 2014, 16](#)). For simplicity, we refer to these quantities as treatment effects in the main text.

The treatment effects reported in the main text are computed using the difference in predicted probabilities of selecting the candidate with a health condition, as estimated from binary logistic regression models. These differences are based on 1000 random draws from a multivariate normal distribution with the parameters of the logistic models.<sup>1</sup> Figures 2 and 3 report as point estimates the mean of the simulated draws along with the 2.5 and 97.5 percentiles to generate a confidence interval. Since the models do not produce predicted probabilities close to the asymptotes of 0 and 1, the treatment effects can also be computed using linear regression models or mean difference tests to obtain almost identical estimates. However, since the vote choice variable is binary, we only report results based on binary logistic regressions. We use the same technique when computing treatment effects with the alternative outcome variables in Table 1 of the main text.

The conditional treatment effects reported in Figure 4 are based on the same approach outlined above. Since the party affiliation of candidates was randomized independently from the health status treatment, we compute these conditional effects using sub-samples by the respondent's self-reported party identification and the afflicted candidate's party label.

We report additional results in this appendix addressing hypotheses in the literature about the determinants of the depression stigma. In particular, we examine whether the stigma is conditional on factors such as age, education, and prior experience with depression. These additional results rely upon logistic regression models including covariates, and split samples to infer results on sub-populations of interest. The baseline model has the form:

$$E(Y_i) = f(\alpha + \gamma T_i + \mathbf{X}_i' \boldsymbol{\beta}) \quad (1)$$

where  $E(Y_i)$  is the probability of a vote for the candidate suffering from a health condition,  $f$  the inverse logit transformation (or logistic cumulative distribution function),  $T_i$  is the depression treatment group, and  $\mathbf{X}_i$  a vector of covariates measuring the age, gender, prior

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<sup>1</sup>We rely on the Zelig library for R for these simulations ([Imai et al. 2008](#); [Choirat et al. 2018](#)).



experience with depression and education level of a respondent. The quantities of interest are computed as  $\mathbb{E}[Y_i(D|\mathbf{X}_i^-, Z_i = z) - Y_i(0|\mathbf{X}_i^-, Z_i = z)]$ , where  $Z_i = z$  indicates that one variable is fixed as a value of interest (e.g. respondents with a college degree) and  $\mathbf{X}_i^-$  are the remaining covariates.

The rest of the appendix reports a number of models supporting our interpretation of the findings in the paper. We display the outputs of the logistic regression models used to produce the figures in the main text, as well as models including covariates specific to respondents and candidate biographies. We also replicate the key findings with the Canadian dataset. We finally return to the models conditional on the length of downtime and provide comparative results based on the Canadian sample. Overall, these additional tests are consistent with the evidence presented in the main paper.

## Additional Results

Tables A3 and A4 report the full table of estimates from the logistic regression models for the United States and Canadian experiments. Note that Table A3 uses blood pressure as the base category. We used these models to compute the treatment effects in Figures 2 and 3. We also report models including a number of additional covariates measuring respondent attributes, and other information and traits included in the candidate biographies (Tables A5 and A6). The multivariate models support the effects reported in the main text.

Next, we compute the treatment effect of depression broken down by party in the Incumbent experiment and report the corresponding results in Figure A1. As can be seen, the effects are weaker in the second version of the experiment, where the incumbent candidate is the one coping with a medical condition. Nonetheless, a similar pattern to the one discussed in the main text is apparent. For Democrat candidates, the punishment of depression is driven primarily by co-partisans and independent voters.

Finally, we address a recurring finding from the literature on the social stigma of mental health, which suggests that socio-demographic characteristics matter. Individuals with higher levels of education, in particular, have been found to be less prejudiced against the depressed (Corrigan 2005; Corrigan et al. 2012; Griffiths et al. 2008). Using our survey data, we can test whether the effect of depression differs for respondents with a college degree or not. Figure A2 presents estimates for three pertinent sub-groups of respondents. The findings suggest, consistent with earlier literature, that the negative response toward individuals suffering from depression is driven largely by respondents with lower levels of education (in this case, without a college degree). Moreover, we find that the causal effect of the depression stigma is considerably larger, nearly twice the size, among respondents who declared having no prior experience with the disease (either personally or via a relative).

Table A3: Vote Choice by Treatment Group (Logistic Regression)

	United States		Canada	
	Open Seat	Incumbent	Open Seat	Incumbent
Cancer	0.100 (0.155)	-0.067 (0.160)	-0.046 (0.173)	0.158 (0.177)
Depression	-0.389* (0.159)	-0.302 (0.161)	-0.215 (0.180)	-0.342 (0.177)
Constant	-0.006 (0.107)	0.457*** (0.114)	-0.032 (0.126)	0.247* (0.125)
Observations	966	967	779	779
Log Likelihood	-663.545	-654.867	-537.867	-532.368

Notes: Logistic regression with binary vote choice as the dependent variable. Blood pressure is the base category. Standard errors in parentheses.

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001.

Table A4: Vote Choice and Depression Treatment (Logistic Regression)

	United States		Canada	
	Open Seat	Incumbent	Open Seat	Incumbent
Depression Treatment	-0.436** (0.141)	-0.268 (0.139)	-0.191 (0.155)	-0.421** (0.154)
Constant	0.042 (0.077)	0.423*** (0.080)	-0.056 (0.087)	0.327*** (0.088)
Observations	966	967	779	779
Log Likelihood	-663.753	-654.954	-537.902	-532.767

Notes: Logistic regression with binary vote choice as the dependent variable. The treatment variable compares the Depression group with the two other physical diseases combined. Standard errors in parentheses.

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001.

Table A5: Vote Choice and Depression Treatment, with Covariates, Open Seat Experimental Session (Logistic Regressions, USA)

	Experimental Session: Open Seat		
	(1)	(2)	(3)
Depression Treatment	-0.411** (0.150)	-0.439** (0.142)	-0.416** (0.151)
Age	-0.011* (0.005)		-0.010* (0.005)
Gender	-0.208 (0.140)		-0.221 (0.141)
Education	0.089 (0.062)		0.093 (0.063)
Experience with Depression	0.032 (0.149)		0.036 (0.151)
Republican Identifier	-0.045 (0.081)		-0.047 (0.082)
Candidate A Age		-0.004 (0.008)	-0.001 (0.009)
Candidate A (Gender = Male)		0.164 (0.130)	0.231 (0.138)
Candidate A (Race = Hispanic)		0.057 (0.162)	0.133 (0.171)
Candidate A (Race = African-American)		-0.008 (0.156)	0.052 (0.167)
Candidate A (Party = Republican)		0.024 (0.130)	0.033 (0.139)
Candidate B Age		0.002 (0.008)	0.004 (0.008)
Candidate B (Gender = Male)		0.148 (0.130)	0.137 (0.139)
Candidate B (Race = Hispanic)		-0.016 (0.159)	0.072 (0.170)
Candidate B (Race = African-American)		-0.179 (0.157)	-0.009 (0.167)
Constant	0.329 (0.394)	0.016 (0.539)	-0.087 (0.683)
Observations	870	966	870
Log Likelihood	-592.919	-661.418	-590.474
Akaike Inf. Crit.	1,199.838	1,344.836	1,212.947

Notes: Logistic regression with binary vote choice as the dependent variable. Standard errors in parentheses.

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001.

Table A6: Vote Choice and Depression Treatment, with Covariates, Incumbent Experimental Session (Logistic Regressions, USA)

	Experimental Session: Incumbent		
	(1)	(2)	(3)
Depression Treatment	-0.222 (0.148)	-0.283* (0.140)	-0.229 (0.149)
Age	0.003 (0.005)		0.003 (0.005)
Gender	-0.179 (0.141)		-0.185 (0.144)
Education	-0.024 (0.063)		-0.033 (0.063)
Experience with Depression	0.426** (0.149)		0.404** (0.151)
Republican Identifier	-0.147 (0.082)		-0.148 (0.083)
Candidate C Age		0.004 (0.008)	0.004 (0.009)
Candidate C (Gender = Male)		0.140 (0.132)	0.155 (0.141)
Candidate C (Race = Hispanic)		0.220 (0.161)	0.224 (0.172)
Candidate C (Race = African-American)		0.304 (0.160)	0.326 (0.170)
Candidate C (Party = Republican)		0.063 (0.132)	0.173 (0.141)
Candidate D Age		-0.010 (0.008)	-0.010 (0.009)
Candidate D (Gender = Male)		0.149 (0.132)	0.169 (0.141)
Candidate D (Race = Hispanic)		-0.250 (0.164)	-0.242 (0.175)
Candidate D (Race = African-American)		-0.210 (0.162)	-0.195 (0.171)
Constant	0.458 (0.398)	0.505 (0.545)	0.496 (0.699)
Observations	870	967	870
Log Likelihood	-585.404	-649.756	-580.057
Akaike Inf. Crit.	1,184.808	1,321.512	1,192.113

Notes: Logistic regression with binary vote choice as the dependent variable. Standard errors in parentheses.

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001.

Figure A1: Conditional Treatment Effect of Depression, by Party Affiliation (Incumbent Session, USA)

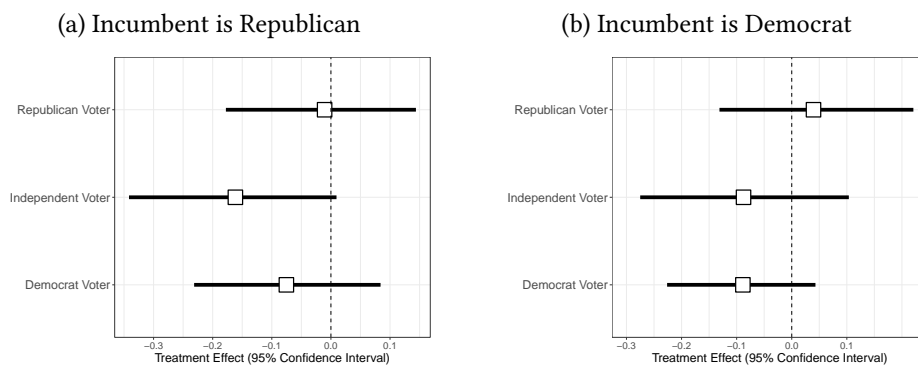
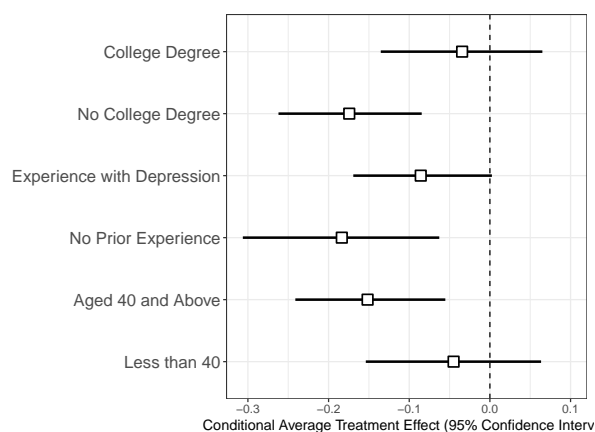


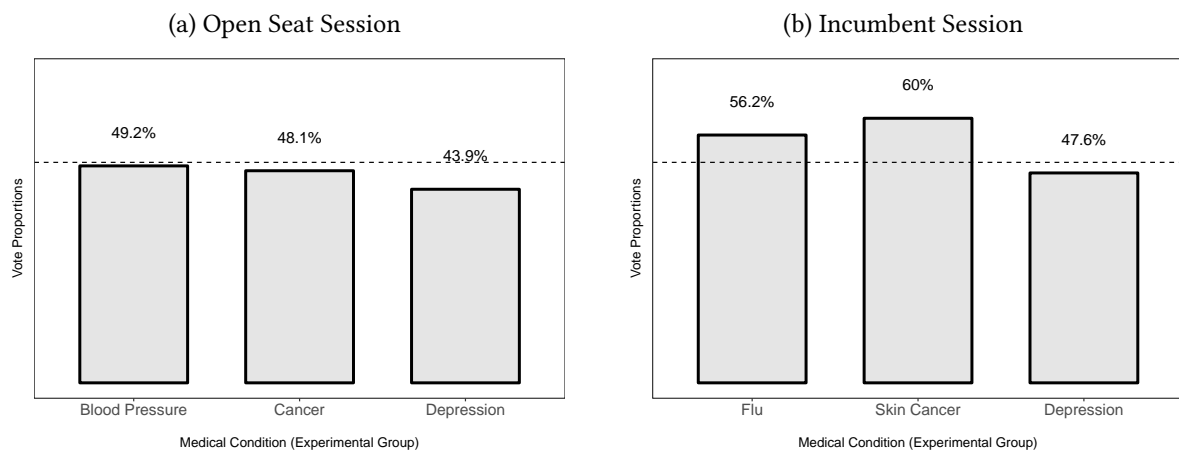
Figure A2: Conditional Treatment Effect of Depression (Open Seat Session, USA)



## Replication of Key Findings with Canadian Sample

Figure A3 reports the distribution of vote proportions for the Canadian study, as we did for the American study in the main text. As can be seen, there is evidence of a gap in the percentage of support for the candidate suffering from depression. In the first session (the open seat election), the depressive candidate received 44% of the votes, as opposed to the other two medical conditions, where the split is closer to 50-50. For the Incumbent version of the experiment, the difference is more pronounced, as suggested by the large and statistically significant treatment effect reported in the main text.

Figure A3: Vote Percentages Across Experimental Groups (Canada)



Tables A7 and A8 report results for models with covariates in the Canadian case. As can be seen, the finding for the second experimental session holds when controlling for these additional factors.

Table A7: Vote Choice Models with Covariates (Canada)

	Experimental Session: Open Seat		
	(1)	(2)	(3)
Depression Treatment	-0.173 (0.156)	-0.186 (0.157)	-0.170 (0.158)
Age	-0.010* (0.005)		-0.010* (0.005)
Gender	-0.145 (0.146)		-0.115 (0.148)
Education	0.021 (0.067)		0.036 (0.068)
Experience with Depression	-0.135 (0.170)		-0.104 (0.172)
Candidate A Age		0.005 (0.009)	0.006 (0.009)
Candidate A (Gender = Male)		0.099 (0.145)	0.100 (0.147)
Candidate A (Race = African-Canadian)		-0.038 (0.175)	-0.052 (0.176)
Candidate A (Race = Asian Canadian)		0.062 (0.181)	0.060 (0.182)
Candidate A (Party = Liberal)		-0.129 (0.146)	-0.131 (0.146)
Candidate B Age		0.017 (0.009)	0.016 (0.009)
Candidate B (Gender = Male)		-0.217 (0.145)	-0.212 (0.146)
Candidate B (Race = African-Canadian)		0.089 (0.178)	0.044 (0.179)
Candidate B (Race = Asian Canadian)		0.145 (0.179)	0.108 (0.181)
Constant	0.508 (0.363)	-1.004 (0.612)	-0.485 (0.733)
Observations	779	779	779
Log Likelihood	-534.439	-533.693	-530.527
Akaike Inf. Crit.	1,080.879	1,089.386	1,091.055

Notes: Logistic regression with binary vote choice as the dependent variable. Standard errors in parentheses.

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001.

Table A8: Vote Choice Models with Covariates (Canada)

	Experimental Session: Incumbent		
	(1)	(2)	(3)
Depression Treatment	-0.466** (0.156)	-0.441** (0.155)	-0.488** (0.158)
Age	-0.005 (0.005)		-0.006 (0.005)
Gender	-0.103 (0.148)		-0.120 (0.150)
Education	-0.197** (0.068)		-0.205** (0.068)
Experience with Depression	0.304 (0.172)		0.304 (0.174)
Candidate C Age		0.017 (0.009)	0.019* (0.009)
Candidate C (Gender = Male)		-0.251 (0.146)	-0.257 (0.147)
Candidate C (Race = African-Canadian)		0.009 (0.180)	-0.012 (0.183)
Candidate C (Race = Asian Canadian)		-0.041 (0.176)	-0.057 (0.178)
Candidate C (Party = Liberal)		-0.0003 (0.146)	-0.029 (0.148)
Candidate D Age		-0.008 (0.009)	-0.008 (0.009)
Candidate D (Gender = Male)		-0.021 (0.146)	-0.011 (0.147)
Candidate D (Race = African-Canadian)		0.026 (0.177)	0.048 (0.179)
Candidate D (Race = Asian Canadian)		0.053 (0.181)	0.075 (0.184)
Constant	1.031** (0.370)	0.037 (0.604)	0.751 (0.706)
Observations	779	779	779
Log Likelihood	-525.838	-528.909	-521.594
Akaike Inf. Crit.	1,063.675	1,079.818	1,073.188

Notes: Logistic regression with binary vote choice as the dependent variable. Standard errors in parentheses.

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001.



## Alternative Outcome Variables: Full Results

Our main text reports results with alternative outcome variables measuring the evaluation of candidate traits. We asked participants to indicate which candidate appeared the most prepared, which one appears to have the best character, and which appears most trustworthy. These questions were chronologically prior to the one asking the participants who they would vote for in an election. We report the logistic regression models used to compute the treatment effects on these outcome variables in Tables A9–A12. The dependent variable equals one if the respondent chose the ill candidate as being most prepared, trustworthy, or having the best character. In all cases but the open seat session for Canada, depression is negatively associated with evaluations of character and preparedness. As with the previous models, this effect is measured against the groups in which the candidate suffers from a physical illness. Thus, the findings support the idea that people perceive individuals suffering from depression in ways that fundamentally differ from the physically ill.

Table A9: Candidate Evaluations and Depression Treatment (Logistic Regression Models, USA)

	Experimental Session: Open Seat		
	Preparedness	Trust	Character
Depression Treatment	−0.493*** (0.142)	−0.319* (0.141)	−0.460** (0.142)
Constant	−0.000 (0.077)	−0.006 (0.077)	0.024 (0.077)
Observations	967	967	967
Log Likelihood	−631.981	−651.286	−654.579
Akaike Inf. Crit.	1,267.962	1,306.572	1,313.158

Notes: Logistic regression with candidate evaluation items as binary dependent variables. Standard errors in parentheses.

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001.

Table A10: Candidate Evaluations and Depression Treatment (Logistic Regression Models, USA)

	Experimental Session: Incumbent		
	Preparedness	Trust	Character
Depression Treatment	-0.387** (0.141)	-0.176 (0.140)	-0.455** (0.139)
Constant	0.673*** (0.082)	0.449*** (0.080)	0.442*** (0.080)
Observations	967	967	967
Log Likelihood	-631.981	-651.286	-654.579
Akaike Inf. Crit.	1,267.962	1,306.572	1,313.158

Notes: Logistic regression with candidate evaluation items as binary dependent variables. Standard errors in parentheses.

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001.

Table A11: Candidate Evaluations and Depression Treatment (Canada)

	Experimental Session: Open Seat		
	Preparedness	Trust	Character
Depression Treatment	-0.253 (0.155)	-0.161 (0.155)	-0.133 (0.156)
Constant	-0.011 (0.086)	-0.086 (0.087)	-0.131 (0.087)
Observations	779	779	779
Log Likelihood	-537.849	-537.618	-536.712
Akaike Inf. Crit.	1,079.698	1,079.236	1,077.423

Notes: Logistic regression with candidate evaluation items as binary dependent variables. Standard errors in parentheses.

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001.

Table A12: Candidate Evaluations and Depression Treatment (Canada)

	Experimental Session: Incumbent		
	Preparedness	Trust	Character
Depression Treatment	-0.590*** (0.156)	-0.390* (0.154)	-0.358* (0.154)
Constant	0.685*** (0.092)	0.358*** (0.089)	0.327*** (0.088)
Observations	779	779	779
Log Likelihood	-510.635	-531.649	-533.019
Akaike Inf. Crit.	1,025.269	1,067.299	1,070.038

Notes: Logistic regression with candidate evaluation items as binary dependent variables. Standard errors in parentheses.

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001.

## The Effect of Leaves of Absence and Votes Missed

Table A13 presents the output of logistic regressions in which the treatment variable is interacted with variables measuring the length of absence taken by each candidate suffering from a medical condition (Open Seat sessions) or the percentage of missed votes in Congress or Parliament (Incumbent sessions). For the Open Seat experiments, information about the leave of absence required by the candidate's condition was inserted in the biographies for candidates coping with cancer and depression. The length of this leave was randomly varied between 1, 2, and 6 weeks. We fixed the value of the leave at 0 in the blood pressure group to compute the estimates. Figure A4 reproduces Fig. 4 for Canada. In this case, the penalty for a prolonged leave is harshest for the depressive candidate, and only when comparing among candidates required to take a leave of six weeks do we find an ATE close to  $-10$  percentage points, as found in the US Open Seat session.

For the Incumbent sessions in each country, the possible values were 0, 10, 20, and 30% of votes missed for the three treatment groups. Table A13 reports results using the depression treatment against the two other groups, with the interaction effect for the number of votes missed. In all cases, we do not find a significant interaction effect between the depression treatment and the length of the downtime. To produce Figures 5 and A4, we modify combinations of the disease and the different options for the length of absence to generate predicted probabilities from the fitted logistic regressions. Finally, Figure A5 reproduces for the Canadian case the finding reported in the main text with the American sample: the severity of cancer must be high, in terms of votes missed, before the disease produces the same effect on the vote as depression. Meanwhile, the depressive candidate is punished in a similar way regardless of the percentage of votes missed.

Table A13: Missed Votes and Length of Absence

	United States		Canada	
	Open Seat	Incumbent	Open Seat	Incumbent
Depression	-0.346 (0.219)		0.072 (0.250)	
Leave	-0.022 (0.036)		-0.013 (0.040)	
Depression × Leave	-0.023 (0.068)		-0.075 (0.071)	
Depression		-0.463* (0.233)		-0.565* (0.263)
Missed Votes		-0.012 (0.007)		-0.013 (0.008)
Depression × Missed Votes		0.013 (0.012)		0.010 (0.014)
Constant	0.074 (0.094)	0.612*** (0.138)	-0.036 (0.107)	0.519*** (0.149)
Observations	966	967	779	779
Log Likelihood	-663.274	-653.495	-536.684	-531.413
Akaike Inf. Crit.	1,334.548	1,314.989	1,081.369	1,070.825

Notes: Logistic regression with vote choice as a binary dependent variable. Standard errors in parentheses.

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001.

Figure A4: Predicted Probability of Choosing Candidate A, by Leave of Absence (Canada)

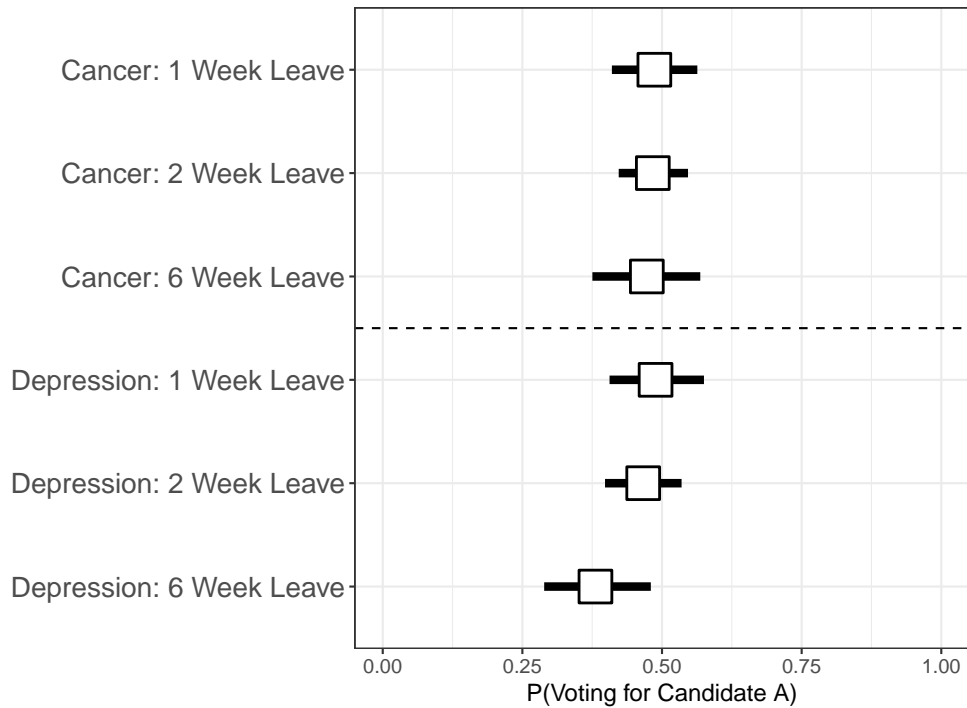
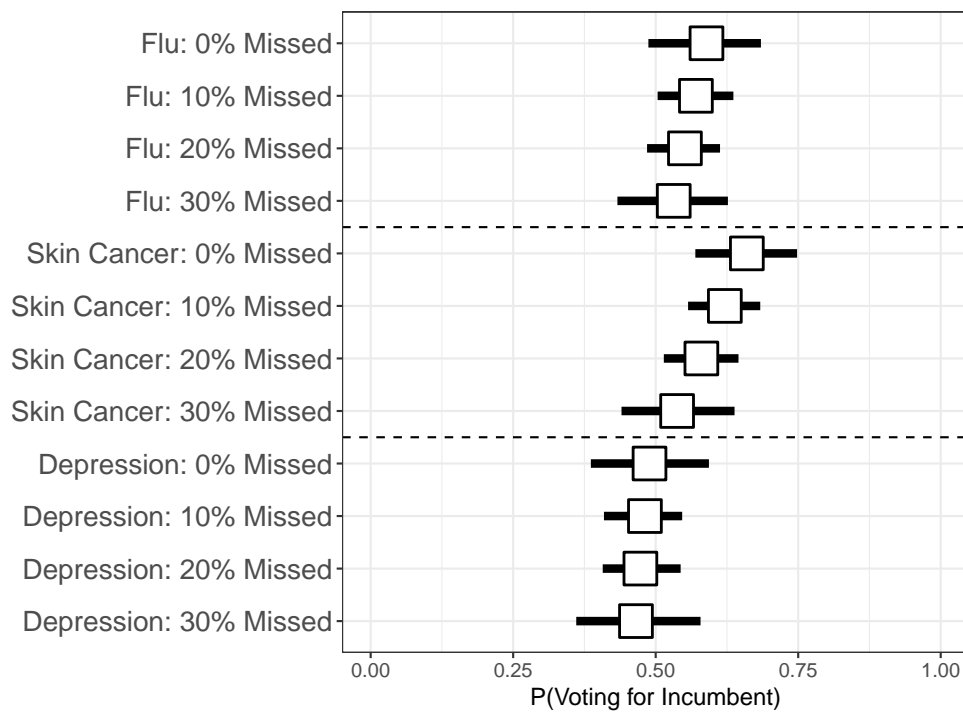


Figure A5: Predicted Probability of Choosing Candidate C, by Percentage of Votes Missed (Canada)



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