Voter Attitudes and Politicians with Disabilities and Chronic Health Conditions

Millions of Americans live with disabilities. While descriptive representation is a significant driver of improved public policy outcomes for marginalized communities, the number of elected officials with known disabilities or chronic health conditions remains extremely low. What drives the lack of representation? We conducted two large surveys (N=6,345 and N=1,829) with nationally representative samples of likely voters in the United States to investigate voter bias against politicians with health challenges and disabilities. Combining observational and experimental data, we find voters to be significantly less likely to support such candidates. Mental illness and HIV receive the strongest penalties, while physical disabilities like wheelchair usage and dwarfism are the least penalized. Voter bias is driven by a combination of prejudice, electability concerns, and negative character assessment. Understanding the barriers to the election of candidates with health conditions is crucial to improve the representation of marginalized communities.

Word count (including references and footnotes):

"You often hear politicians talk about having a spine of steel... I actually have a steel spine, and I will put that to work for you." (Greg Abbott, Governor of Texas, 2013)[1]

The Center for Disease Control estimates that 1 in 4 adult Americans – equivalent to 61 million people – have a disability, with 24 million having a 'severe disability.'[2] Descriptive representation can be a powerful treatment to the marginalization of minority groups, but very few representatives with visible disabilities or chronic health conditions are present in Congress. What accounts for the lack of representation?

We conducted two large studies in the United States to examine one of the possible explanations: voter bias against politicians with disabilities and health challenges. In 2020 we surveyed a nationally representative sample of over 6,000 likely American voters, investigating their likelihood of supporting candidates with the following conditions: (i) being overweight with diabetes; (ii) having experienced a heart attack, (iii) having cancer, (iv) having HIV; (v) having depression, (vi) having bipolar disorder, (vii) being in a wheelchair, (viii) being blind or visually impaired, (ix) being deaf, (x) being a little person (also known as dwarf).

These population groups are substantial. One million Americans are legally blind,[3] a million legally deaf, three million use a wheelchair or mobility device. Each year around 800,000 Americans have a heart attack and 1.8 million are diagnosed with cancer. 1.1 million Americans live with HIV. Over 99 million adults are overweight. 70 million are obese.[4] 47 million people

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[1] https://www.nytimes.com/2013/07/23/us/candidate-for-texas-governor-draws-support-and-critics-for-talk-of-his-disability.html?_r=0

[2] https://www.cdc.gov/media/releases/2018/p0816-disability.html. The Americans with Disabilities Act defines disability as, 'A physical or mental impairment that substantially limits one or more major life activities, a record of such an impairment, or being regarded as having such an impairment.'

[3] https://www.nih.gov/news-events/news-releases/visual-impairment-blindness-cases-us-expected-double-2050

[4] https://www.cdc.gov/o besity/data/adult.html

live with anxiety and depression, while 11 million have a bipolar disorder.[5] There are an estimated 30,000 little people living in America.

Relying only on observational data, however, has limitations. Hence, in a separate study, we conducted a conjoint experiment to counter social desirability bias and examine the drivers of voter discrimination. We ran the experiment with a nationally representative sample of more than 1,800 likely voters who voted for their preferred candidate among hypothetical alternatives within their own party. For each candidate we fully randomized seven traits (gender, age, education, religion, political experience, sexual orientation) in addition to health. Candidates could be "healthy", using a wheelchair because of birth condition, be overweight with diabetes, HIV+, and HIV+ since birth.

We find that voters penalize all health conditions but to widely varying degrees. Conditions that may be perceived as impairments to performing the job of elected officials, such as mental illness, are strongly penalized, as are those like HIV that retain acute social stigma. In contrast, conditions that do not affect cognitive capacity and cannot be attributed to individual behavior are the least penalized, as in the case of using a wheelchair because of birth condition or being little people. There is also variation among voters in their degree of bias. African American and LGBTQ voters, who are themselves members of historically disadvantaged minority groups and have been more exposed to several health conditions, show greater empathy toward candidates with health challenges. Women and religious individuals are also more positively predisposed than the norm, while conservative voters have stronger negative bias.

[5] https://www.nami.org/learn-more/mental-health-by-the-numbers

Understanding the barriers to the election of candidates with disabilities and health conditions is important. The underrepresentation of marginalized groups reinforces the prejudice that they are not equipped to participate in political decision-making. Descriptive representation matters also because elected representatives from marginalized groups are better at promoting the interests of their own groups (Mansbridge 1999), as advocated by disability rights organizations that have adopted the slogan "Nothing about us without us" (Charlton 1998). People with disabilities also have lower levels of political participation and distinctive political preferences (Schur and Adya 2013, Reher 2018). Increasing the levels of descriptive representation of people with disabilities and health conditions is therefore crucial to expand political engagement among members of these communities and to improve public policy outcomes.

Voters' attitudes toward politicians with chronic health conditions

Negative evaluations

In order to be elected, individuals with disabilities and health challenges need to overcome multiple hurdles of marginalization and discrimination (Schur and Kruse 2000). First, lower resources - such as income and education - and lower political efficacy may complicate the decision to run (Reher 2018). Second, access to funding, organization, and the electorate may be reduced by conditions which limit mobility and ability to communicate with voters. Third, political parties are often risk averse about nominating candidates who they perceive as being less likely to win. Fourth, voters may be less inclined to support these candidates.

In this article, we focus on voter attitudes toward politicians with chronic health conditions. We expect disability or visible health conditions to influence vote choice because these traits are especially salient, often more than gender and race (Rohmer and Louvet 2009). We argue that voters are more likely to display negative evaluations of such candidates, even though we expect a subset of voters to express positive evaluations, as we discuss below. We anticipate voter negative bias against candidates with health conditions to be driven by three factors: prejudice, doubts about the candidates' ability to fulfill the role of elected official, and electability concerns.

We expect prejudice and negative feelings to penalize these candidates. Individuals with disabilities are often seen as dependent and incompetent (Louvet et al. 2009, Nario-Redmond 2010). Implicit measures also reveal that people with disabilities are perceived as less warm (Rhomer and Louvet 2012, 2018). People exhibit stigma and discrimination against individuals with disability and chronic health conditions. Many illnesses elicit such attitudes, including mental illness, physical and sensory disabilities, HIV/AIDS, cancer, and obesity (Corrigan 2014). This often leads to a negative moral evaluation of individuals with health conditions, whose character is seen as flawed. Such negative moral evaluations extend to politicians with chronic health conditions (Loewen and Rheault 2019).

Second, candidates with disabilities and chronic health conditions may be doubted on their ability to perform the job of an elected official. Representative leadership requires cognitive skills and the ability to handle stressful environments, along with the ability to work for long hours. Since people with health challenges and disabilities have often been viewed as incapable

and incompetent (Corrigan 2014, Friedman and Scotch 2017, Rohmer and Louvet 2018), they may be consider unfit for such a demanding job.

Furthermore, some illnesses may weaken a candidate's ability to meet the job requirements because they may require medical treatment leading to absenteeism (see Loewen and Renaults 2019). Some physical disabilities - such as blindness, deafness and wheelchair usage - may create other challenges in performing the job, such as accessing reading materials, joining colleagues' and constituents' conversations, and travelling between constituency and parliament (Friedman and Scotch 2017).

Finally, voters likely have concerns about the ability of candidates with health conditions to win elections. Candidates from traditionally marginalized groups often face heightened electability scrutiny, as in the case of women, ethnic minorities, and LGBTQ candidates (Teele et al. 2018, Magni and Reynolds 2020). Voters also reward candidates' past political experience, which is often considered a trait that bolsters electability (Horiuchi et al. 2020). However, there is a severe lack of visibility in public office for politicians with visible chronic health conditions and disability. Few such candidates have been elected to national office, and the ones who have often tried to disguise their conditions. For these reasons, voters may think that candidates with visible health challenges face an uphill path to election.

Compounding these barriers are the realities that citizens with disabilities and chronic health conditions have been historically less likely to vote and be engaged in politics (see Gagne, Schoon and Sacker 2019, Schur and Kruse 2000). Landwehr and Ojeda (2020) note that those with depressive symptoms are less likely to vote, be interested or engaged in politics. Gollust and Rahn (2015) find that Americans with heart disease were less likely to vote in 2008 than those

without (but they find that those with cancer were more likely to vote). That said, the disability advocacy community has become increasingly mobilized and visible, especially since the Americans with Disabilities Act was promoted and passed in 1990 (see Barton 2013, Trevisan 2017 and Mann 2018).

A hierarchy of penalties

While most illnesses and disabilities will to some extent generate discrimination, a "hierarchy of impairments" also likely exists, with various levels of stigma associated with different conditions (Friedman and Scotch 2017). In the top penalty tier we expect candidates with HIV/AIDS and mental illness such as depression and bipolar disorders. HIV/AIDS generates especially acute prejudice because it has been framed as resulting from stigmatized sexual activity or illegal drug use. People with HIV/AIDS (Weiner et al. 1988) are blamed and considered less deserving of help if AIDS is seen as the result of promiscuous sexual behavior rather than fetal transmission (Weiner et al. 2011). It also builds upon stigma affecting already marginalized communities who have disproportionately suffered from HIV/AIDS, such as gay men, sex workers, and drug users (Land and Linsk 2013). Forty years after HIV appeared in the US, a large share of the population still blames individuals with HIV for their status (Beaulieu et al. 2014).

Individuals living with mental illness are also victims of strong prejudice (Rüsch et al. 2005) and often judged incompetent and flawed (Friedman and Scotch 2017). Prior work shows that politicians with depression are penalized more strongly than candidates with cancer (Loewen and Rheault 2019). Furthermore, mental illnesses may be especially likely to be seen as

disqualifying because of the cognitive ability demands of the job. Conditions such as depression or bipolar disorder may require medical treatment leading to absenteeism (see Loewen and Renaults 2019), which could be seen as an obstacle to the job.

Stigma is also severe, but perhaps slightly less so, for other conditions seen as the result of individual behavior. Such conditions lead to blame attribution, which in turn prompts negative character assessment. This helps explain variation in attitudes toward marginalized groups such as welfare recipients (Weiner 1993) and gays and lesbians (Haider-Markel and Joslyn 2008). In the context of health, when someone's illness is seen as the result of one's voluntary behavior, blame and stigma increase. Overweight individuals are often deemed personally responsible (Oliver and Lee 2005). Blame attribution then feeds negative perceptions of overweight individuals as weak, compulsive, and poor decision makers. In politics, obese candidates are rated more negatively than average-weight candidates (Miller and Lundgren 2012, Roehling 2014). Even if stigma is reduced there are other conditions which may call into question the ability of the candidate to fulfill the functions of an elected official. Health challenges and disabilities that (often erroneously) lead voters to negative evaluations of capacity. In the lowest penalty tier we would place candidates with conditions that are less likely to be attributed to their personal behavior, such as in the case of wheelchair users because of a birth condition or little people.

To summarize, we expect 'tier one' candidates with mental illnesses and with HIV to be the most severely penalized. In contrast, 'tier three' candidates born with a health condition for which they cannot be considered responsible and which does not impair their cognitive ability – such as being in a wheelchair or little people – should be the least penalized. In the middle, we

expect 'tier two' candidates with conditions that may affect their ability to perform the job, because they may require medical leave for treatment (for example, cancer or heart conditions) or because they may pose challenges to aspects of the job such as accessing reading materials and conversations (e.g. visual or hearing impairments).

Positive evaluations

While we anticipate that candidates with chronic health conditions will be more likely, overall, to face negative bias, we also expect that they will elicit positive attitudes among a subgroup of voters. There are positive stereotypes associated with disability and disease. People with disabilities and debilitating illness are sometimes presented as superhumans who overcame monumental struggles in their life with tireless tenacity (Block n.d.). The media often portray them as brave and heroic, as inspiring models who have survived and succeeded despite severe life challenges.[6]

As a result, some voters may support politicians with disabilities and health conditions because those politicians are seen as having strong discipline, determination and a hard work disposition, given that they had to overcome severe obstacles in their lives. The struggles that such candidates had to endure may have also increased their empathy and sensitivity in the eyes of the electorate, as a result of the personal challenges in their lived experiences.[7] For these

[6] One example in popular culture is Marvel's superhero Daredevil. Blinded by a radioactive substance, he has become a superhero whose other senses are heightened, giving him 'radar sense'. See: https://www.aruma.com.au/about-us/blog/run-forest-run-disability-stereotypes-in-the-media/.

[7] Anecdotal evidence suggests that politicians who have faced pain as a result of their own or their own family members' illness or death are seen as relatable and attuned to ordinary people's suffering. For instance, Joe Biden is often celebrated for his empathy, as a result of the pain resulting from the tragic loss of his wife and son.

reasons, a (small) subgroup of voters may believe that politicians with disability and chronic health conditions may bring a unique perspective to public office that deserves to be supported.

Which voters penalize politicians with health conditions and disability?

We hypothesize that some minority voters - namely African-Americans and LGBTQ people-, left-leaning voters and non-religious individuals will penalize candidates with chronic health conditions and disabilities less than other voters (with some distinction across types of health conditions, as we discuss below).

First, we expect smaller penalties among voters from marginalized groups, who often exhibit greater empathy. "Historically disadvantaged groups (e.g., minorities and women) might find it easier to imagine themselves in the position of a person being unfairly treated, *even when that person comes from a different group*" (Sirin et al. 2017: 429, italics in original). Individuals who have experienced discrimination are therefore more likely to support members of *other* groups facing discrimination. Specifically, empathy more likely emerges within minority groups who have been historically oppressed and for whom a narrative of group oppression is salient (Eklund et al. 2009). African-Americans and LGBTQ individuals have faced historical oppression and discrimination in the US. As a result, they have mobilized as groups, for instance in the Civil Rights Movement and in the LGBTQ movement (Fetner 2008, Fejes 2016). Hence, we expect greater support for candidates with health conditions among African-American and LGBTQ voters.

Second, African-Americans and LGBTQ people have greater familiarity with some health challenges, which should reduce the penalty that candidates with such conditions face.

Familiarity should be greater among minority voters who have suffered disproportionately from specific health conditions, inasmuch as personal experience and direct social contact with illnesses reduce stigmatization and discrimination (Thornicroft et al. 2008). African Americans are more likely than the general population to be overweight, have diabetes, experience heart attacks, die from cancer, face mental health struggles, and be HIV+ than the general population.[8]

LGBTQ individuals have been disproportionately affected by HIV/AIDS, which further contributed to the narrative of group oppression and mobilization in response to hostile government responses (Sherrill 1996). LGBTQ people are also more likely to expereience mental health condition as a result of the harrassment, discrimination and violence that they experience (Huebner et al. 2004, Kelleher 2009). Hence, we expect smaller penalties among African American and LGBTQ voters toward candidates with health conditions.

We also expect ideological and religious beliefs to influence voter attitudes. Regarding ideology, conservatives prefer 'powerful' candidates and strong leadership (Laustsen 2017) and are more likely to blame individuals for their condition (Skitka and Tetlock 1992). In contrast, liberals often display higher support for the inclusion of marginalized and under-represented groups (Sigelman et al. 2015?). Conservative voters therefore should be less likely than liberal ones to support candidates with health challenges. As for religiosity, religious individuals tend to exhibit greater support for disadvantaged groups (Regnerus et al. 1998), which should translate in reduced discrimination against politicians with health conditions. However, candidates with HIV should be an exception, since the religious right, which portrayed them as engaged in

[8] https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=3&lvlid=61; https://www.nfb.org/resources/blindness-statistics

"disgusting" homosexual behavior or illicit drug use (Fetner 2008), has often stigmatized individuals with HIV.

Politicians with health conditions elected to office

The number of politicians with visible health conditions has historically been very low. While there are a few prominent cases, many did not acquire their condition until after being elected to office and often concealed their severe health challenges. Presidents Franklin Delano Roosevelt and Woodrow Wilson disguised their use of wheelchairs, while President Cleveland underwent a surgery on a friend's yacht to hide his battle with jaw cancer. Nevertheless, throughout history high profile elected officials living with health conditions have advanced battles against diseases and disabilities. Treatments, vaccines and cures are developed by scientists when they are given the resources and space to experiment. Franklin D. Roosevelt funded the research which led to a vaccine for polio. Through multiple battles with cancer Arlen Specter highlighted the need for research into non-Hodgkin's lymphoma. After 16 years in Congress Patrick Kennedy acknowledged his own struggles with depression, addiction, and bipolar disorder as he began a crusade to highlight the challenges of living with mental illness. Still today, despite cultural changes sparked by disability rights advocates and medical and technological advances that reduce the negative impact of health impairments, the number of politicians with a disability or chronic health condition remains low (Friedmand and Scotch 2017).

Mental illness. 1972 Democratic vice-Presidential candidate, Thomas Eagleton, withdrew after revealing he had been treated for depression. Several US presidents suffered from mental illness, most notably President Coolidge who battled depression throughout his tenure (Davidson

et al. 2006). But mental illness has remained off-limits in presidential campaigns. George H.W. Bush's presidential physician described mental illness as the "kiss of death" for a candidate. David Axelrod, senior adviser to Barack Obama, argued that a president disclosing mental illness would "create a crisis of confidence" in the nation.[9] Only a handful of members of Congress have openly talked about their mental health struggles. Senators Lawton Chiles (FL) and Mark Dayton (MN) were treated for depression. Representatives Patrick Kennedy (D-MA), Lynn Rivers (D-MI), Jesse Jackson Jr. (D-IL), and Karen McCarthy (D-MO) suffered from bipolar disorder.

Physical Disabilities. As of 2020, there are only two permanent wheelchair users in Congress - Sen. Tammy Duckworth (D-IL) and Rep. Jim Langevin (R-RI). Brian Mast (R-FL) is a double amputee. There is also one Governor, Greg Abbott from Texas. In the past, the most prominent wheelchair user was President Franklin Delano Roosevelt, who concealed his condition, worried that being seen as a "crippled" would clash with the image of a "good leader" (Gallagher 1985). President Wilson suffered a series of strokes that left him paralyzed. Alabama Governor George Wallace, Representative Arthur W. Aleshire (OH, 1937-39) and Senators Max Cleland (GA, 1997-2003) and John Porter East (NC, 1981-86) were also wheelchair users.

The most prominent blind US politicians are Cyrus Habib, Lieutenant Governor of Washington, and former Governor of New York, David Paterson. Visually impaired politicians from the past include Thomas Gore, the first Senator from Oklahoma (1907-21; 1931-37); Benjamin Tillman, governor of South Carolina (1890-94), known as the "one-eyed plowboy;"

[9] https://www.politico.com/magazine/story/2015/10/politics-mental-illness-history-213276

and Matthew Anthony Dunn, US Representative from Pennsylvania (1933-41).[10] In contrast, deaf Americans and little people have never had a national or statewide elected official.

Heart attacks, cancer, HIV, and weight. Presidents Dwight Eisenhower and Lyndon Johnson and Vice-President Dick Cheney returned to work after heart attacks. Primary presidential contender Senator Bernie Sanders has been the most prominent politician admitting they suffered a heart attack on the campaign trail, in 2019. Some high profile Senators died of cancer in office, including Ted Kennedy, John McCain, and Hubert Humphrey. Other prominent politicians disclosed their battle with cancer: Senators Paul Tsongas and Arlen Specter and Governors Ella Grasso (Connecticut) and Larry Hogan Jr (Maryland).[11] Currently, there are less than ten out HIV+ elected officials in America at any level of government, including NYC Council Speaker Corey Johnson.

President William Howard Taft was considered obese, weighing 340lbs, as were former Governors Chris Christie (New Jersey) and Mike Huckabee (Arkansas). New York Rep. Jerrold Nadler admitted he was unable to ride the subway because he could not climb the stairs.[12] In February 2019, the *New York Times* published an article under the headline, "At 243 Pounds, Trump Tips the Scale into Obesity."[13]

Empirical approach

[10] http://www.politicalgraveyard.com/special/disabled.html

[11] https://www.washingtonpost.com/news/local/wp/2015/06/22/these-politicians-battled-serious-illness-while-in-office/.

[12] https://www.bbc.com/news/world-us-canada-31025556; https://abcnews.go.com/Health/fat-politicians-drop-pounds-health-votes-fall-elections/story?id=10481011

[13] https://www.nytimes.com/2019/02/14/us/politics/trump-obese.html.

We explore our expectations with two original nationally representative surveys, which include both observational and experimental data and which provide both quantitative analysis and qualitative evidence based on open-ended answers. We administered one of the two surveys online to 6,340 likely US voters in 2020. The survey included a battery of items asking respondents how likely they would be to support candidates with chronic health conditions or disability. The question read: "Compared to a healthy candidate, how likely are you to vote for a presidential candidate who… Is overweight with diabetes? | Has had a heart attack? | Has cancer? Is HIV positive? | Is being treated for depression? | Has bipolar disorder? | Uses a wheelchair? | Blind or visually impaired? Is deaf? | Is a "little person" or dwarf?"

The 2020 survey also included a series of variables measuring respondents' socio-demographic characteristics, party preference and political ideology. This dataset allows us to present descriptive analysis on the penalty faced by candidates with various health conditions and disability and to examine which voters penalize these candidates.

We administered a separate survey to more than 1,800 US citizens in 2018. This survey allows us to analyze the reasons for voter bias with two complementary approaches: an embedded conjoint experiment and open-ended questions in which respondents could freely report their attitudes toward candidates' health and other characteristics. The conjoint experiment presented respondents with five pairs of hypothetical candidates within the party the respondent identified with, similarly to a primary election. For each candidate, we randomized eight socio-demographic characteristics across survey participants: health, gender, race/ethnicity, age, religion, sexual orientation, education, and political experience.

Within the health attribute, in addition to candidates with no chronic health condition, we presented respondents with candidates who are overweight with diabetes - one of the most widespread health conditions, candidates using a wheelchair as a result of birth condition - the least penalized condition in the observational findings, and candidates with HIV, differentiating between candidates who acquired HIV at birth or later in life, in order to explore the effects of potential blame attribution.

After each pair of candidates, we asked respondents which one they would be more likely to vote for. This question allows us to measure voter bias with both marginal means (MMs) - which are not sensitive to the baseline category - and average marginal causal effects (AMCEs), which allow us to quantify the degree of penalty. The difference in penalty for candidates with HIV since birth and candidates who acquired HIV positive later in life can shed light on the effect of blame attribution and character assessment drive voter bias toward candidates with chronic health conditions. We also examine the impact of outright prejudice and electability concerns around these candidates by asking respondents two additional questions after each pair: "Which of these two candidates… (i) …would you prefer to have as a neighbor? (ii) …has better chances to win the election?"

The survey also included an open-ended question.

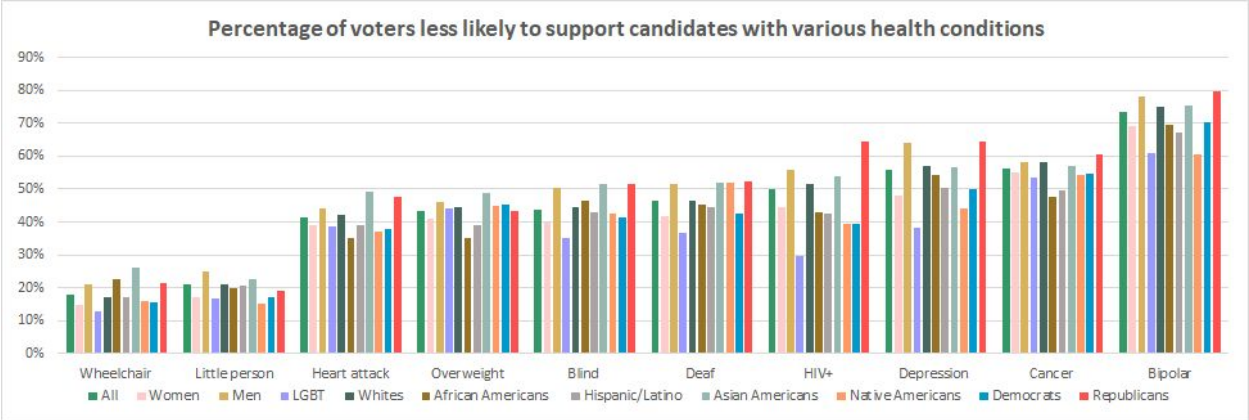
Results

We first present descriptive results from our 2020 survey conducted with a nationally representative sample of 6,345 likely US voters.[14] Figure 1 reports the percentages of voters who

[14] More information on the two surveys, including sample characteristics and question wording, can be found in the online appendix.

are “much less likely” and “less likely” to support candidates with health conditions and disabilities compared to “healthy” candidates.

Figure 1



While all health conditions face negative bias, penalties vary substantially. Mental illnesses and HIV are the most penalized. More than 70% of voters are less likely to vote for someone with bipolar disorder, 55% for someone with depression, and 50% for a candidate with HIV. Cancer, which can be strongly debilitating and could sometimes elicit blame attribution, is also harshly penalized, with 56% of voters less likely to support a candidate with cancer.

Other conditions that are perceived to impair the ability of performing the duties of elected official face substantial penalties, but to declining degrees. Between 40% and 45% of voters are less likely to vote for someone who is overweight, blind, deaf, or has had a heart attack. Candidates in a wheelchair since birth or little people - conditions that normally do not affect cognitive capacity and are less likely to spark blame attribution - are discriminated against by about 20% of voters.

Which voters penalize candidates with health conditions?

Table 1 reports results from an ordered logistic regression, in which the dependent variable is measured on a five-point scale ranging from "much less likely to vote for" to "much more likely to vote for" candidates with health conditions.

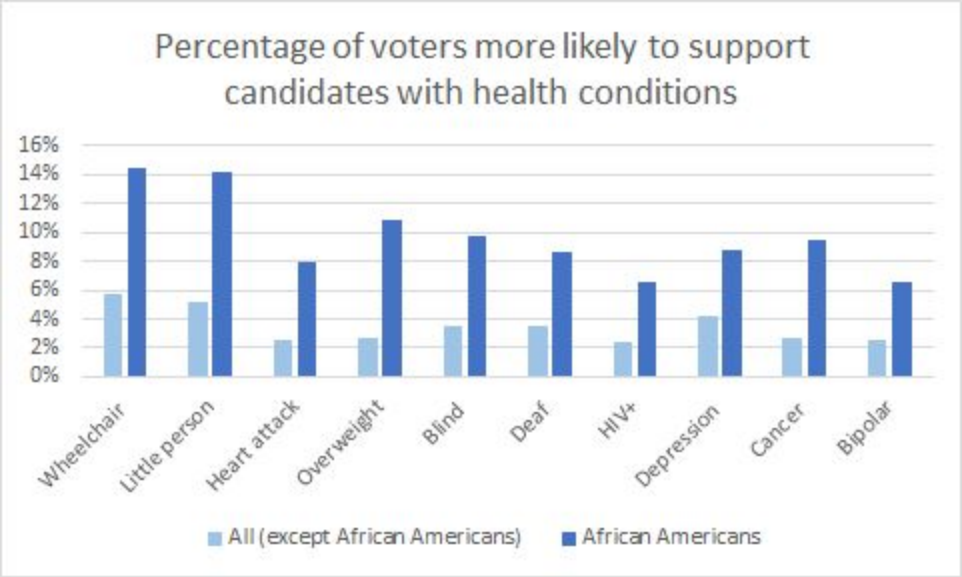
Table 1 - Penalties for candidates with chronic health conditions and disability

	Overweight	Heart attack	Cancer	HIV+	Depression	Bipolar	Wheelchair	Blind	Deaf	Dwarf
Age	-0.01***	-0.01***	-0.01***	-0.01***	-0.03***	-0.02***	-0.003	-0.01***	-0.01***	-0.01**
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Education	-0.07***	-0.07***	-0.05**	0.03	0.02	0.0002	0.03	0.07***	0.05**	-0.02
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Income	-0.04**	-0.003	0.002	0.003	-0.05**	-0.10***	-0.02	-0.04*	-0.02	-0.03
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
LGBT (self)	-0.10	-0.20*	-0.13	0.46***	0.40***	0.27**	0.26*	0.15	0.14	0.13
	(0.10)	(0.10)	(0.10)	(0.11)	(0.10)	(0.09)	(0.12)	(0.10)	(0.10)	(0.12)
Religiosity	0.04	0.05*	0.04*	-0.05*	0.08***	0.08***	0.02	0.05*	0.04	0.09***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.03)
Military (self)	-0.10	0.02	-0.06	-0.27***	-0.06	0.004	-0.03	-0.03	-0.10	-0.02
	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.10)	(0.08)	(0.08)	(0.10)
Conservative	0.02	-0.10***	-0.07**	-0.24***	-0.17***	-0.15***	-0.06*	-0.11***	-0.09***	-0.10***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.03)
Party: Republic	0.09	-0.16	-0.05	-0.29***	-0.18*	-0.10	-0.13	-0.12	-0.14	-0.28**
	(0.08)	(0.09)	(0.08)	(0.08)	(0.08)	(0.08)	(0.10)	(0.08)	(0.08)	(0.10)
Party: Independ	0.13	-0.06	0.06	-0.04	-0.08	0.02	-0.01	0.04	-0.02	-0.08
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.08)	(0.07)	(0.07)	(0.08)
Gender: Male	0.003	0.07	0.17**	-0.13*	-0.26***	-0.12*	-0.29***	-0.22***	-0.18**	-0.22**
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.07)	(0.06)	(0.06)	(0.07)
Gender: Other	0.18	0.18	0.44	0.02	0.13	0.71*	0.33	0.51	0.68	-0.62
	(0.38)	(0.37)	(0.34)	(0.39)	(0.36)	(0.35)	(0.46)	(0.38)	(0.39)	(0.41)
Race: Black	0.44***	0.14	0.33**	-0.02	-0.55***	-0.26*	0.04	-0.26*	-0.20	0.12
	(0.12)	(0.12)	(0.11)	(0.11)	(0.11)	(0.11)	(0.14)	(0.11)	(0.11)	(0.13)
Race: Latinx	-0.01	-0.18	0.06	0.04	-0.19	-0.10	0.005	-0.15	-0.08	-0.02
	(0.11)	(0.11)	(0.11)	(0.11)	(0.11)	(0.11)	(0.13)	(0.11)	(0.11)	(0.13)
Race: Asian	-0.16	-0.47***	-0.14	-0.45***	-0.43***	-0.18	-0.47**	-0.50***	-0.40***	0.03
	(0.12)	(0.12)	(0.12)	(0.12)	(0.12)	(0.12)	(0.14)	(0.12)	(0.12)	(0.15)
Race: Native	0.17	0.22	0.22	0.32	0.29	0.43	-0.24	-0.10	-0.19	0.02
	(0.23)	(0.24)	(0.22)	(0.23)	(0.22)	(0.22)	(0.27)	(0.23)	(0.22)	(0.27)
Race: Other	-0.11	0.12	0.28	0.07	-0.03	-0.24	0.15	-0.18	0.02	0.21
	(0.18)	(0.19)	(0.19)	(0.19)	(0.19)	(0.18)	(0.23)	(0.19)	(0.19)	(0.23)
Observations	5,472	5,472	5,472	5,471	5,469	5,470	5,472	5,472	5,472	5,472

Note: *p<0.05; **p<0.01; ***p<0.001

African Americans penalize less than white voters candidates who are overweight or have cancer, but exhibit more severe penalties for candidates struggling with mental health. Interestingly, though, African-Americans are consistently *more* likely to vote for candidates with health conditions (Figure 2). One possibility is that familiarity breeds empathy and support, given that African Americans are more likely than the general population to be overweight, have diabetes, experience heart attacks, die from cancer, have depression, use a wheelchair, be blind, and be HIV+.[15]

Figure 2 - Higher support for candidates with chronic health conditions and disability



In contrast, Asian Americans have more negative attitudes than whites (Table 1). This could be due to the fact that, even though a minority group, Asian Americans are less economically

[15] https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=3&lvlid=61; https://www.nfb.org/resources/blindness-statistics

disadvantaged and lack a salient narrative of group oppression, two conditions important for group empathy to emerge (Sirin et al. 2017). In contrast, LGBTQ individuals penalize less than straight voters candidates struggling with mental health and HIV, two conditions that have disproportionately affected the LGBTQ community.

Conservative voters penalize candidates with health conditions more than liberals, with the only exception of candidates who are overweight. Republicans show more negative attitudes than Democrats toward candidates with HIV and depression and toward little people. In contrast, religious individuals show less negative attitudes, with the only exception of candidates with HIV, who they penalize more strongly.

Regarding socio-demographic characteristics, women and younger voters are generally more supportive than men and older voters. Education has mixed effects, reinforcing the penalty for health conditions sometimes perceived as behavioral outcomes (i.e. overweight, heart attack and cancer), but reducing the penalty for candidates with physical disabilities like blindness and deafness. Income deepens the penalty for overweight candidates and for candidates struggling with mental health.

We also found suggestive evidence that exposure to a politician with a health condition lessens voter bias. Texas Governor Greg Abbott is in a wheelchair, and fewer Texans are less likely to vote for someone in a wheelchair than voters in other states (13.6% versus 17.9%). Minnesotan Governor Mark Dayton (2011-2019) was very public about his battles with depression - and Minnesotans are less inclined than voters in other states to vote against candidates with depression (46.3% versus 55.8%). Furthermore, while 38% of Democrats

(compared to 48% of Republicans) are less likely to vote for a candidate who suffered a heart attack, only 25% of Bernie Sanders supporters are.

What drives voter bias?

Our conjoint experiment with a nationally representative sample of 1,829 US respondents focused on candidates who are overweight with diabetes (one of the most widespread health conditions), in a wheelchair since birth (the least penalized condition in the observational findings), and candidates with HIV, acquired either at birth or later in life (to explore potential blame attribution).

We measure voter bias with both marginal means (MMs) - which are not sensitive to the baseline category - and average marginal causal effects (AMCEs), which allow us to quantify the degree of penalty. Candidates with HIV and overweight are penalized more severely than candidates who have been HIV+ since birth or in a wheelchair since birth. In the vote simulations, MMs reveal that respondents chose 'healthy' candidates 54.8% of the time, compared to 42.8% for candidates with HIV, 45.4% for overweight candidates, 47.3% for those HIV+ since birth, and 50.2% for those in a wheelchair since birth.

AMCEs show that, compared to healthy candidates, candidates with HIV suffered on average an electoral penalty of 11.9 percentage points, those overweight of 9.1, candidates HIV+ since birth of 8.1, and those in a wheelchair since birth of 4.5. Consistently with Weiner's attribution theory of responsibility (Weiner et al. 1998), these findings reveal that voters penalize more severely candidates who can potentially be considered responsible for their condition, as opposed to candidates who cannot be blamed for a condition acquired at birth.

We further investigate drivers of voters' bias by asking respondents: "Which of these two candidates… (i) …would you prefer to have as a neighbor? (ii) …has better chances to win the election?" Beyond attribution of responsibility, prejudice, electability concerns, and character assessment drive voter bias. Table 2 reports AMCEs with percentage point penalties where the baseline is a "healthy" candidate. Candidates with HIV suffer from the greatest prejudice. Candidates with HIV or overweight are also seen as antithetical to social progress. In contrast, electability concerns are the only statistically significant factor explaining voter bias against candidates in a wheelchair since birth.

Table 2

	Prejudice	Electability	Electability (controlling for prejudice)
HIV+	-7%***	-9.1%***	-5.8%***
HIV+ since birth	-5.1%***	-5.8%***	-3.5%***
Overweight with diabetes	-3.5%***	-5.8%***	-4.2%***
Wheelchair since birth	-0.6%	-2.8%**	-2.5%**

Note: *p<0.05; **p<0.01; ***p<0.001

Qualitative analysis (open-ended questions - reasons for voter bias - 2018 survey)

An analysis of the open-ended answers offers further insights into voter attitudes toward candidates with health conditions. Many respondents indicated that candidates' health condition played a role in their vote choice. Most respondents mentioned that they took health into

consideration without saying in what way. However, a significant number explicitly mentioned that health conditions negatively affected their likelihood to vote for a candidate, while a few indicated that health conditions increased the likelihood to vote for a candidate. Table 3 summarizes the number of respondents who indicated health conditions as a factor influencing their vote choice.

Table 3

Respondents	**Total number**	**1,829**
Health	Total mentions	187
	Neutral	117
	Negative	67
	Positive	3
HIV	Total mentions	15
	Neutral	3
	Negative	10
	Positive	2
Overweight	Total mentions	5
	Neutral	2
	Negative	3
	Positive	0

Wheelchair	Total mentions	3
	Neutral	1
	Negative	1
	Positive	1

An analysis of the substance of answers reveals what lies behind voter bias. Prejudice plays a driving role and stigma manifests in negative moral evaluations, inasmuch as candidates with chronic health conditions are seen by some as failing to take care of themselves. For some respondents chronic health conditions are an indicator of a weak or negative character, which is undesirable in elected officials. For instance, one respondent said: "Health is a big issue for me...those that are obese I look down at. If you can't even take care of your own basic health needs and make wise choices, I cannot trust you to make political judgments on my behalf." Another explained: "One [candidate] I was most concerned by was overweight and diabetic; 35 years old, I think. Without parsing the cause of his obesity, the combo, combined with his age indicated to me an irresponsible personal behavior. This mirrors, quite likely, his approach to public life, and I can't back that." Still another respondent expressed plain prejudice: "some had aids [sic] that's not a good disease." Confirming the importance of attribution of responsibility, a respondent said: "I would prefer a candidate who actively took care of their health but wouldn't hold it against anyone who was born or disabled [sic]."

Other voters perceive chronic health conditions as a debilitating impairment to the ability of politicians to fulfill their job. For instance, one respondent noted: "I would prefer someone who is physically healthy so they would be up to the demands of the job." Others said; "If the person is healthy, it may mean that there is a greater chance that the candidate is more likely to

be alive and in office longer;" "I felt that the candidates that were HIV positive, I wouldn't vote for them because how long will the person be in office and how much will their health affect the job they do;" "In most cases it was their health. I was worried they would be out sick more than most so wouldn't elect them." Two respondents said they preferred "[a candidate who] is also healthy and able to work under pressure" or "someone not burdened by sickness." Yet another respondent explained: "Actually it's a bit complicated to choose a candidate who has hiv [sic] because of his health conditions, maybe that can affect him at work." Even more explicitly, others expressed support for candidates "if they are not under a death condition" and worried that "HIV positive people might not live as long as their contemporaries."

On the other hand, a small minority of respondents indicated they would be more inclined to support candidates with health conditions and disabilities than other candidates. These stemmed from positive stereotypes associated with people with disabilities, who are sometimes perceived as heroic and inspiring. Some voters expressed that candidates with health conditions are examples of strong discipline and strength because of the obstacles overcome. For example, one respondent stated: "Though there were many HIV-Positive, most were in middle or senior years, which I took as a sign of a disciplined personality," another said: "The hiv status [sic] is proof that is a stronger person." Other respondents argued that candidates with health conditions are more likely to have empathy and sensibility to other people's struggles because of their own struggles. For example, one respondent explained: "if they have a health issue, they are more likely to be sympathetic to ill citizens and be more understanding." Another one similarly remarke: "I believed that his life experience with HIV would make him more attuned to the issues of people at-risk and in-need."

Conclusion (GM to add/finalize)

Our tiers of penalty for varying conditions mostly fulfilled our expectations but cancer was more penalized than we expected and HIV somewhat less. Unsurprisingly, bipolar disorders were significantly more penalised than any other condition when choosing candidates. Conditions that are perceived to impair the ability of performing the duties of elected official face lower, but still substantial penalties, conditions that normally do not affect cognitive capacity and are less likely to spark blame attribution elicit the lowest penalties. Both our quantitative and qualitative evidence suggests that prejudice, electability concerns, and character assessment drive vote bias. With electability concerns being a greater factor than perhaps was previously acknowledged.

But there is strong evidence suggesting the power of empathy in lessening vote bias against candidates with chronic health conditions and disabilities. The fact that African Americans are much more likely to live with such conditions and have personal contact with friends, relations and colleagues who have such conditions is correlated with much greater likelihood of support implies that contact breeds empathy which lessens prejudice. A strong finding in the LGBTQ (see Magni and Reynolds forthcoming) and race (Brown, Brown, Jackson, Sellers, and Manuel (2003) literature but one which has not been highlighted as much when it comes to health and disability. The contact theory of empathy is reinforced by the way LGBTQ voters repsond to candidates with HIV and the lower bias against candidates using wheelchairs when those voters have experience of a prominent politician using a wheelchair. Youth, liberalism, women and religiosity are generally (although not uniformly) also associated with lower levels of vote bias.

Our study shows that candidates with health conditions and disabilities still have a mountain to climb, with mental illnesses and HIV perceived as the strongest disqualifiers for public office. Most Americans do not see these individuals in leadership roles and assume that society is not ready to elect candidates with such conditions. This self-fulfilling prophecy is pernicious. If citizens are less likely to vote for candidates because they are seen as unelectable, marginalized groups never have a seat at the table. The lack of descriptive representation then hinders the promotion of the rights and interests of marginalized groups, and makes poor public policy choices more likely.

References

Barton, Len (ed). 2013. *Disability Politics and the Struggle for Change.* London. Routledge.

Beaulieu, M., Adrien, A., Potvin, L. and Dassa, C., 2014. Stigmatizing attitudes towards people living with HIV/AIDS: Validation of a measurement scale. BMC Public Health, 14(1), p.1246.

Block, L. n.d. "Stereotypes about People with Disabilities," Disability History Museum, http://www.disabilitymuseum.org/dhm/edu/essay.html?id=24 (accessed 10/1/2020).

Brown, K.T., T.N. Brown, James S. Jackson, R.M. Sellers, and W.J. Manuel. 2003. "Teammates on and Off the Field? - Contact With Black Teammates and the Racial Attitudes of White Student Athletes." Journal of Applied Social Psychology, 33(7): 1379-1403.

Charlton, J. 1998. Nothing about us without us: Disability oppression and empowerment. Berkeley and Los Angeles: University of California Press.

Corrigan, P.W., 2014. The stigma of disease and disability: Understanding causes and overcoming injustices. American Psychological Association.

Davidson, J.R., Connor, K.M. and Swartz, M., 2006. Mental illness in US Presidents between 1776 and 1974: a review of biographical sources. The Journal of nervous and mental disease, 194(1), 47-51.

Eklund, J., Andersson‐Stråberg, T. and Hansen, E.M., 2009. "I've also experienced loss and fear": Effects of prior similar experience on empathy. Scandinavian journal of psychology, 50(1), pp.65-69.

Fejes, F., 2016. Gay rights and moral panic: The origins of America's debate on homosexuality. Springer.

Fetner, T. 2008. How the Religious Right Shaped Lesbian and Gay Activism. Minneapolis: University of Minnesota Press.

Friedman, S. and Scotch, R.K. 2017. Politicians with Disabilities: Challenges and Choices. In Oxford Research Encyclopedia of Politics.

Gagné, Thierry, Ingrid Schoon and Amanda Sacker. 2019. Health and voting over the course of adulthood: Evidence from two British birth cohorts. SSM Population Health. December 16;10:100531

Gollust, Sarah and Wendy Rahn. 2015. The Bodies Politic: Chronic Health Conditions and Voter Turnout in the 2008 Election. Journal of Health, Politics, Policy and Law. December. 40(6):1115-55.

Horiuchi, Y., Smith, D, Yamamoto. 2018a. Identifying voter preferences for politicians' personal attributes: A conjoint experiment in Japan. Political Science Research and Methods. 1-17.

Huebner, D.M., Rebchook, G.M. and Kegeles, S.M., 2004. Experiences of harassment, discrimination, and physical violence among young gay and bisexual men. American Journal of Public Health, 94(7), pp.1200-1203.

Kelleher, C., 2009. Minority stress and health: Implications for lesbian, gay, bisexual, transgender, and questioning (LGBTQ) young people. Counselling Psychology Quarterly, 22(4), pp.373-379.

Land, H. and Linsk, N., 2013. HIV stigma and discrimination: Enduring issues. Journal of HIV/AIDS & Social Services, 12(1): 3-8.

Landwehr, Claudia and Christopher Ojeda. 2020. Democracy and Depression: A Cross-National Study of Depressive Symptoms and Nonparticipation. American Political Science Review, online 19 October 2020.

Laustsen, L., 2017. Choosing the right candidate: Observational and experimental evidence that conservatives and liberals prefer powerful and warm candidate personalities, respectively. Political Behavior, 39(4), pp.883-908.

Loewen, P.J. and Rheault, L., 2019. Voters Punish Politicians with Depression. British Journal of Political Science. Online first.

Louvet, E., Rohmer, O. and Dubois, N., 2009. Social judgment of people with a disability in the workplace: How to make a good impression on employers. Swiss Journal of Psychology, 68(3), pp.153-159.

Magni, G., and A. Reynolds. Forthcoming. Voter Preferences and the Political Underrepresentation of Minority Groups: Lesbian, Gay, and Transgender Candidates in Advanced Democracies. Journal of Politics.

Mann, Benjamin. 2018. Survival, Disability Rights, and Solidarity: Advancing Cyberprotest Rhetoric through Disability March. Disabilities Studies Quarterly, 38 (1).

Mansbridge, J., 1999. Should blacks represent blacks and women represent women? A contingent" yes". The Journal of politics, 61(3), pp.628-657.

Miller, B.J. and Lundgren, J.D., 2010. An experimental study of the role of weight bias in candidate evaluation. Obesity, 18(4), 712-718.

Nario-Redmond, M.R., 2010. Cultural stereotypes of disabled and non-disabled men and women: Consensus for global category representations and diagnostic domains. British Journal of Social Psychology, 49(3), pp.471-488.

Oliver, J.E. and Lee, T., 2005. Public opinion and the politics of obesity in America. Journal of health politics, policy and law, 30(5), 923-954.

Regnerus, M.D., Smith, C. and Sikkink, D., 1998. Who gives to the poor? The influence of religious tradition and political location on the personal generosity of Americans toward the poor. Journal for the Scientific Study of Religion, pp.481-493.

Reher, S., 2018. Mind this gap, too: political orientations of people with disabilities in Europe. Political Behavior, pp.1-28.

Roehling, P.V., Roehling, M.V., Brennan, A., Drew, A.R., Johnston, A.J., Guerra, R.G., Keen, I.R., Lightbourn, C.P. and Sears, A.H., 2014. Weight bias in US candidate selection and election. Equality, Diversity and Inclusion: An International Journal.

Rohmer, O. and Louvet, E., 2018. Implicit stereotyping against people with disability. Group Processes & Intergroup Relations, 21(1), pp.127-140.

Rohmer, O. and Louvet, E., 2012. Implicit measures of the stereotype content associated with disability. British Journal of Social Psychology, 51(4), pp.732-740.

Rohmer, O. and Louvet, E., 2009. Describing persons with disability: Salience of disability, gender, and ethnicity. Rehabilitation psychology, 54(1), p.76-82.

Rüsch, N., Angermeyer, M.C. and Corrigan, P.W., 2005. Mental illness stigma: Concepts, consequences, and initiatives to reduce stigma. European psychiatry, 20(8), pp.529-539.

Schur, L. and Adya, M., 2013. Sidelined or Mainstreamed? Political Participation and Attitudes of People with Disabilities in the United States. Social Science Quarterly, 94(3), pp.811-839.

Schur, L.A. and Kruse, D.L., 2000. What determines voter turnout?: Lessons from citizens with disabilities. Social Science Quarterly, pp.571-587.

Sherrill, K., 1996. The political power of lesbians, gays, and bisexuals. PS: Political Science and Politics, 29(3), pp.469-473.

Sirin, C.V., Valentino, N.A. and Villalobos, J.D., 2017. The social causes and political consequences of group empathy. Political Psychology, 38(3), pp.427-448.

Skitka, L.J. and Tetlock, P.E., 1992. Allocating scarce resources: A contingency model of distributive justice. Journal of Experimental Social Psychology, 28(6), pp.491-522.

Thornicroft, G., Brohan, E., Kassam, A. and Lewis-Holmes, E., 2008. Reducing stigma and discrimination: Candidate interventions. International journal of mental health systems, 2(1), p.3.

Trevisan, Filippo. 2017. *Disability Rights Advocacy Online: Voice, Empowerment and Global Connectivity*. New York: Routledge

Weiner, B., Perry, R.P. and Magnusson, J., 1988. An attributional analysis of reactions to stigmas. Journal of personality and social psychology, 55(5), 738-48.