Uncomposed, edited manuscript published online ahead of print.

This published ahead-of-print manuscript is not the final version of this article, but it may be cited and shared publicly.

**Author:** Ruxin Talia R.; Ha Yoonhee P. MSc, MPhil; Grade Madeline M. MD, MSc; Brown Rory; Lawrence Carlton MD, MPP; Martin Alister F. MD, MPP

**Title:** The Vot-ER Healthy Democracy Campaign: A National Medical Student Competition to Increase Voting Access

**DOI:** 10.1097/ACM.0000000000004381
Academic Medicine

DOI: 10.1097/ACM.0000000000004381

The Vot-ER Healthy Democracy Campaign: A National Medical Student Competition to Increase Voting Access

Talia R. Ruxin, Yoonhee P. Ha, MSc, MPhil, Madeline M. Grade, MD, MSc, Rory Brown, Carlton Lawrence, MD, MPP, and Alister F. Martin, MD, MPP

T.R. Ruxin is project manager, Vot-ER, Boston, Massachusetts; ORCID: https://orcid.org/0000-0003-1883-214X.

Y.P. Ha is MD-PhD student, Perelman School of Medicine; trainee, Center for Health Incentives & Behavioral Economics; and associate fellow, Leonard Davis Institute of Health Economics, University of Pennsylvania, Philadelphia, Pennsylvania; ORCID: https://orcid.org/0000-0003-3525-1697.

M.M. Grade is resident physician, Department of Emergency Medicine, University of California, San Francisco, San Francisco, California; ORCID: https://orcid.org/0000-0003-4888-360X.

R. Brown is medical student, Vagelos College of Physicians and Surgeons, Columbia University, New York City, New York.

C. Lawrence is resident physician, Department of Pediatrics, Mount Sinai Kravis Children’s Hospital, New York City, New York.

A.F. Martin is assistant professor, Harvard Medical School, Boston, Massachusetts; ORCID: https://orcid.org/0000-0001-7826-5939.
Correspondence should be addressed to Talia R. Ruxin, Center for Social Justice & Health Equity, Massachusetts General Hospital, 55 Fruit Street, Boston, MA 02114; email: talia@voter.org; Twitter: @Vot_ER_org.

Supplemental digital content for this article is available at http://links.lww.com/ACADMED/B178.

Acknowledgments: The authors thank Rose Sproat, University of Michigan, for her assistance with the graphics.

Funding/Support: Yoonhee P. Ha was supported by the Medical Scientist Training Program, Perelman School of Medicine, University of Pennsylvania.

Other disclosures: None reported.

Ethical approval: The Massachusetts General Hospital Institutional Review Board approved this study.

Previous presentations: This project was presented as a poster at the virtual 2021 Asian Pacific American Medical Student Association National Conference in January 2021; at the virtual 2021 Society for General Internal Medicine Annual Meeting in April 2021; at the virtual 2021 Society for Academic Emergency Medicine Consensus Conference in May 2021; and at the virtual American Academy of Family Physicians National Conference for Family Medicine Residents and Medical Students in July 2021.
Abstract

Problem

Voting affords citizens a direct say in the leaders and policies that affect their health. However, less than 20% of eligible U.S. citizens have been offered the chance to register to vote at a government-funded agency like a hospital or clinic that provides Medicaid or Medicare services. Medical students are well positioned to increase voting access due to their interactions with multiple actors in health care settings, including patients, visitors, colleagues, and others.

Approach

Vot-ER, a nonpartisan, nonprofit organization that aims to promote civic engagement in health care settings, launched the inaugural Healthy Democracy Campaign from July 20 to October 9, 2020. As part of this national, gamification-based competition, medical student captains were recruited to lead teams of health care trainees and professionals that helped eligible adults start the voter registration and/or mail-in ballot request processes prior to the November 2020 elections. Post competition, medical student captains were surveyed about their motivations for participating and skills and knowledge gained.

Outcomes

In total, 128 medical student captains at 80 medical schools in 31 states and the District of Columbia formed teams that helped 15,692 adults start the voter registration and/or mail-in ballot request processes. Eighty-two (64.1%) captains responded to the post competition survey, representing 56 (70.0%) of the participating schools. The top ranked motivation for participating in the campaign was the desire to address social and racial inequities (37, 45.1%). Respondents reported gaining skills and knowledge in several aspects of civic engagement, including
community organizing (67, 81.7%) and voting rights (63, 76.8%). The majority of respondents planned to incorporate voter registration into their future practice (76, 92.7%).

Next Steps

Future Healthy Democracy Campaigns will aim to continue closing the voting access gap and promote the long-term inclusion of hands-on civic engagement in medical education and practice.
Problem

Civic engagement, including voting, invites active participation by citizens in the democratic governance of their communities and allows individuals to have a direct say in the leaders and policies that affect the social determinants of health.\textsuperscript{1–4} The National Voter Registration Act of 1993 sought to expand voting access by legalizing nonpartisan voter registration at state agencies offering public assistance, including any hospital or clinic that provides Medicaid or Medicare services. However, less than 20\% of eligible U.S. citizens have been offered the chance to register to vote at a government-funded agency,\textsuperscript{5} and health care settings remain underutilized spaces for increasing voting access.\textsuperscript{1,4,6}

Medical students are well positioned to increase voting access due to their interactions with multiple actors in health care settings, including patients, visitors, fellow trainees, health care professionals, and others. However, standard medical school curricula do not offer hands-on opportunities for students to increase voting access and develop civic engagement knowledge and skills.

To address these challenges, Vot-ER (http://vot-er.org), a nonpartisan, nonprofit organization started at Massachusetts General Hospital to promote civic engagement in health care settings, partnered with the American Medical Student Association to launch the inaugural Healthy Democracy Campaign (HDC) in 2020. This national, gamification-based competition was designed to mobilize medical students across the United States to increase access to voter registration ahead of the November 2020 elections. Gamification promotes behavioral change in non-game settings by drawing on the elements of games to enhance individuals’ experiences and motivations.\textsuperscript{3,7} Also as part of the HDC, we sought to encourage safe voting during the COVID-19 pandemic by raising awareness of mail-in voting.\textsuperscript{8}
Approach

Medical student captain recruitment

We, as health care trainees and professionals and Vot-ER staff, implemented the HDC from July 20 to October 9, 2020. Prior to the competition, we recruited medical student captains from U.S. medical schools via outreach to national advocacy- and social justice-oriented student groups and professional networks. Captains formed teams of health care trainees and professionals at their institutions that prepared patients, visitors, colleagues, and others to vote, irrespective of their demographics and political affiliations. Each participating institution had 1 team; several institutions had multiple captains.

Healthy Democracy Kits

We provided teams with Healthy Democracy Kits consisting of badge backers to be worn behind hospital IDs (see Supplemental Digital Appendix 1 at http://links.lww.com/ACADMED/B178), posters, smartphone lock screen graphics, and printouts with voter registration information to be distributed at discharge (see Supplemental Digital Appendix 2 at http://links.lww.com/ACADMED/B178). All these tools featured institution-specific QR and text message codes that linked to an online platform that allowed eligible individuals to register to vote, request a mail-in ballot, and/or check their voter registration status. Additionally, we provided captains with access to an online messaging group (Slack, Salesforce, San Francisco, CA) to facilitate collaboration with peers at other institutions and Vot-ER staff, and we shared social media graphics and email templates and text banking guidelines (see Supplemental Digital Appendix 2 at http://links.lww.com/ACADMED/B178). Several captains also designed their own school-specific resources (e.g., video conferencing backgrounds, social media accounts), raised awareness via school listservs, and used Apple Airdrop (Apple Inc, Cupertino, CA) to
send patients a link to the platform on their mobile devices while they waited inside their vehicles at COVID-19 testing sites.

**Competition structure and gamification**

Using a collegiate sports tournament framework, the HDC included a preseason, regular season, and postseason. The 14-day preseason served as a pilot competition between 2 North Carolina medical schools with a longstanding rivalry (see Supplemental Digital Appendix 2 at http://links.lww.com/ACADMED/B178). During the regular season and postseason, competition was expanded nationwide.

To foster friendly competition, we incorporated 4 game elements into the HDC: points, a virtual leaderboard, recognition of achievements, and a shared mission. Captains encouraged their teammates to use the Healthy Democracy Kits in health care settings to ask open-ended questions about patients’, visitors’, colleagues’, and others’ plans to vote in the upcoming elections. Teams then directed those interested and eligible to register to vote to the online voter registration platform and earned a point each time a visitor to the platform clicked on a link and started the process of registering to vote or requesting a mail-in ballot. As noted in Vot-ER’s Terms of Use (https://vot-er.org/terms-of-use), teams were not permitted to coerce patients or other adults into using their institution-specific resources or make patients feel that their medical care was or would be contingent upon or in any way altered by their decision to register to vote.

The virtual leaderboard displayed team points and school rankings. Each captain was assigned to a Vot-ER staff member who was responsible for onboarding and checking on the team’s progress. Staff regularly contacted top scorers and struggling teams to celebrate high performances or spur greater engagement, respectively. The top scoring team was awarded a $1,000 cash donation to a charity of its choice. Vot-ER’s social media accounts also recognized
achievements by highlighting new and top performing teams and regional rivalries. To promote a
shared mission, these accounts featured schools’ “plays of the week” and creative efforts that
others could replicate, such as collaborating with local restaurants to include text codes on their
menus.

Participant survey
Following the competition, we developed a survey that contained 13 required multiple choice,
Likert scale, and ranked choice questions about captains and their experiences with the
competition as well as 3 optional short answer questions about captains’ motivations for
participating and the skills and knowledge they gained (see Supplemental Digital Appendix 3 at
http://links.lww.com/ACADMED/B178). The survey was approved by the Massachusetts
General Hospital Institutional Review Board and administered to captains via Qualtrics (Version
11.20, Provo, UT) post competition. Deidentified survey results were analyzed by T.R.R. and
M.M.G. using RStudio (Version 1.3, RStudio, Boston, MA).

Outcomes

Competition results
In total, 128 medical student captains formed teams at 80 medical schools in 31 states and the
District of Columbia (see Figure 1). These teams helped 6,190 adults start the voter registration
process and 9,502 adults start the mail-in ballot request process. Teams helped a median of 70.5
(interquartile range [IQR] 10.5 - 262.0) adults start the voter registration and/or mail-in ballot
request processes, while the top 10 schools helped a median of 472.0 (IQR 436.5 - 836.2) adults
start these processes.
Survey results

Eighty-two (64.1%) captains responded to the survey, representing 56 (70.0%) of the participating schools. Seventy (85.4%) respondents were medical students in their second, third, or fourth year of training, while 3 (3.7%) were in their first year, 5 (6.1%) in a PhD/gap year, and 4 (4.9%) in other years or programs.

The top ranked motivations for captains participating in the HDC were the desire to address social and racial inequities (37, 45.1% ranked as their top motivation), the national election (i.e., presidential) (23, 28.0%), and civic engagement (13, 15.9%) (see Table 1). The top ranked motivations for helping more voters in the competition were a desire to promote a more inclusive democracy (44, 57.9% ranked as their top motivation), the virtual leaderboard (10, 13.2%), and Vot-ER social media posts (8, 10.5%) (see Table 1). The most common perceived barriers to participating in the competition were COVID-19 restrictions (60, 73.2%), lack of time (59, 72.0%), and lack of institutional support (48, 58.5%).

From the HDC, captains reported developing skills and gaining knowledge in several aspects of civic engagement, including community organizing (67, 81.7%), communication (60, 73.2%), vertical networking (i.e., between team members of different professional ranks at the same institution) (50, 61.0%), voting rights (63, 76.8%), voter suppression (49, 59.8%), and civic health (43, 52.4%). The majority of respondents agreed or strongly agreed that civic health should be included formally in medical education (78, 95.1%), that their participation represented a positive, immediate impact on their communities (77, 93.9%), and that they would incorporate voter registration into their future practice (76, 92.7%) (see Table 1).
Next Steps

The inaugural HDC helped 15,692 adults start the voter registration and/or mail-in ballot request processes ahead of the November 2020 elections in the United States. In contrast to previous voter registration initiatives, the HDC was unique because it provided health care trainees and professionals across the United States with standardized tools and incorporated gamification to drive behavior change amongst participants and adults eligible to vote.

As indicated by the high percentage of survey respondents who intend to address voter registration in their future practice, this type of intervention also holds promise in establishing a norm of promoting civic engagement in health care settings. In addition, our survey results revealed that the virtual leaderboard and social media posts emphasizing achievement and a shared mission helped motivate captains. Other public health campaigns seeking to drive behavior change may benefit from incorporating such gaming elements into their interventions.

A limitation of our study was that we could not assess the rate of voter turnout in the targeted populations because these data were not yet available from the respective Secretary of State offices. Future studies will evaluate the voter turnout rates in the populations targeted by the HDC.

To keep up the momentum from the inaugural HDC, we launched a second competition during Civic Health Month (http://civichealthmonth.org) in August 2021. We expanded this competition to include medical residency programs, physician assistant programs, and nursing schools and incorporated formalized trainings on community organizing. The online voter registration platform and all institution-specific QR and text message codes will remain active through at least the November 2024 elections. We encourage training programs across the United
States to participate in future HDCs to help close the voting access gap and promote the long-term inclusion of hands-on civic engagement in medical education and practice.
References


2. Rothschild J. The logic of a co-operative economy and democracy 2.0: Recovering the possibilities for autonomy, creativity, solidarity, and common Purpose. Sociol Q. 2016;57:7-35.


Figure 1 Geographic distribution of U.S. medical schools that participated in the 2020 Healthy Democracy Campaign. The number of participating medical schools in each state is represented by white, gray, or black shading. A darker color represents a greater number of participating schools.
Table 1
Medical Student Captain Responses to a Survey Distributed After the 2020 Healthy Democracy Campaign

<table>
<thead>
<tr>
<th>Ranking questions</th>
<th>No. (%) respondents</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Ranked 1st</td>
<td>Ranked 2nd</td>
<td>Ranked 3rd</td>
</tr>
<tr>
<td><strong>Motivations for participating (n = 82)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social and racial inequities</td>
<td>37 (45.1)</td>
<td>25 (30.5)</td>
<td>13 (15.9)</td>
<td></td>
</tr>
<tr>
<td>COVID-19 pandemic</td>
<td>3 (3.7)</td>
<td>18 (22.0)</td>
<td>18 (22.0)</td>
<td></td>
</tr>
<tr>
<td>National election (i.e., presidential)</td>
<td>23 (28.0)</td>
<td>17 (20.7)</td>
<td>20 (24.4)</td>
<td></td>
</tr>
<tr>
<td>Local community issues</td>
<td>1 (1.2)</td>
<td>2 (2.4)</td>
<td>4 (4.9)</td>
<td></td>
</tr>
<tr>
<td>Civic engagement</td>
<td>13 (15.9)</td>
<td>16 (19.5)</td>
<td>17 (20.7)</td>
<td></td>
</tr>
<tr>
<td>Effect positive change in medical school</td>
<td>4 (4.9)</td>
<td>4 (4.9)</td>
<td>10 (12.2)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>1 (1.2)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td></td>
</tr>
<tr>
<td><strong>Motivations for helping more voters (n = 76)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Desire to promote a more inclusive democracy</td>
<td>44 (57.9)</td>
<td>8 (10.5)</td>
<td>5 (6.6)</td>
<td></td>
</tr>
<tr>
<td>Virtual leaderboard</td>
<td>10 (13.2)</td>
<td>16 (21.1)</td>
<td>13 (17.1)</td>
<td></td>
</tr>
<tr>
<td>School pride</td>
<td>1 (1.3)</td>
<td>12 (15.8)</td>
<td>13 (17.1)</td>
<td></td>
</tr>
<tr>
<td>Prospect of winning cash donation to charity</td>
<td>2 (2.6)</td>
<td>2 (2.6)</td>
<td>0 (0.0)</td>
<td></td>
</tr>
<tr>
<td>National Voter Registration Day</td>
<td>6 (7.9)</td>
<td>15 (19.7)</td>
<td>7 (9.2)</td>
<td></td>
</tr>
<tr>
<td>Vot-ER social media posts</td>
<td>8 (10.5)</td>
<td>13 (17.1)</td>
<td>19 (25.0)</td>
<td></td>
</tr>
<tr>
<td>Other captains’ Slack posts</td>
<td>0 (0.0)</td>
<td>1 (1.3)</td>
<td>2 (2.6)</td>
<td></td>
</tr>
<tr>
<td>Vot-ER staff Slack posts</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>1 (1.3)</td>
<td></td>
</tr>
<tr>
<td>Likert scale questions (n = 82)</td>
<td>No. (%) respondents</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------------------------------------</td>
<td>---------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seeing other departments and health care providers use Vot-ER</td>
<td>5 (6.6)   9 (11.8) 14 (18.4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>0 (0.0)   0 (0.0)  2 (2.6)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civic health should be included formally in medical education.</td>
<td>78 (95.1) 4 (4.9)  0 (0.0) 0 (0.0) 0 (0.0)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participating in the competition represented a positive, immediate impact I could have on my community and its health.</td>
<td>77 (93.9) 4 (4.9)  1 (1.2) 0 (0.0) 0 (0.0)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I see myself incorporating voter registration into my future medical practice.</td>
<td>76 (92.7) 5 (6.1)  1 (1.2) 0 (0.0) 0 (0.0)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I believe that being a medical student equipped me well to engage community members and health care providers as part of the competition.</td>
<td>58 (70.7) 14 (17.1)</td>
<td>7 (8.5)</td>
<td>2 (2.4)</td>
<td>1 (1.2)</td>
</tr>
</tbody>
</table>