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Attitudes on participation in clinical drug trials: A nationally representative survey of older adults with multimorbidity

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Abstract

Background: Older adults with multimorbidity are under-represented in clinical drug trials. Their inclusion will not increase unless they are willing and able to participate. Data on motivators and barriers to participation in trials of new medications of older adults with multimorbidity are needed.

Methods: Cross-sectional internet and telephone survey of a nationally representative sample of adults 65 years with 3 chronic conditions (NORC University of Chicago Amerispeak Panel) conducted from March–April, 2023 to determine motivators and barriers to drug trial participation, described graphically and using statistics.

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AUTHOR CONTRIBUTIONS

Drs. Schwartz, Tarn, Boscardin, and Dr. Qi Liu analyzed and interpreted the data. Drs. Schwartz, Tarn, Boscardin, Qi Liu, Ruey-ying Liu, Lau, and Khatri contributed to the study concept and design and interpretation of data and preparation of the manuscript.

This article reflects the views of the authors and should not be construed to represent FDA's views or policies.

SPONSOR'S ROLE

The sponsor had no role in study design, execution, or analysis. The sponsor did review and approve the final manuscript prior to submission for publication.

SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

Results: Surveyed 1318 (1142 Internet, 176 phone) with mean age 72.3 ± 6.3 (SD), 52% women; race: 83% White, 10% Black or African American, 5% Hispanic or Latino, 1.1% Asian; 4.4 ± 1.9 chronic conditions (of 16 queried), taking 7.5 ± 3.3 medications. Barriers included fear of side effects (48%), taking too many medications (44%), placebo (44%), mobility (33%), bathroom needs (25%), hearing (19%), eyesight (15%), video visits (33%; higher in women, Black or African-American respondents, and those >80 years). Sixty-five percent would join all in-person trials, 49% would join all-video trials. Travel >1 h was difficult for 66%, most difficult for women. Trust was a concern in 25% of Black respondents. Caregiving responsibilities or lack of time were not obstacles. Participants were most likely to consider a drug trial for a problem they have (63%) versus prevention (44%) and if invited by a physician (80%) or University healthcare system (58%). Getting better care was ranked very important (79%) followed by helping others (57%).

Conclusions: Major concerns of older patients with multimorbidity about participation in drug trials are potential side effects, taking too many medicines, and video visits. Physicians have the greatest influence on decisions and in-person visits are preferred. Proposed changes in trial design to increase enrollment of under-represented older adults may not align with patient-reported preferences.

Keywords

barriers; clinical trials; motivators; multimorbidity; older adults

INTRODUCTION

Older adults take more medications than any other patient group. Patients who are older and with more complex medical conditions may experience differences in both efficacy and safety of therapies compared with younger and healthier patients. Yet older patients are under-represented in clinical trials including evaluations of new medications.¹⁻⁷ Recommendations to address the lack of “representative” older patients with multimorbidity in evaluations of new therapies have been made by academicians, journals, politicians, professional societies, and the government.^{2-5,8-13} Many suggestions focus on changes in clinical trial design including use of internet recruitment, and consent, virtual visits, and less frequent research encounters to relieve transportation challenges.^{2-5,14}

Older adults may have hearing or vision impairments, mobility limitations, transportation issues, or financial constraints that present challenges for clinical trial participation and use of digital health tools during trials.¹⁵ They may also need assistance from formal or informal caregivers who have an influence on perceptions of burden of diseases or treatments or trial participation. Medication risks, costs, and benefits are considered with more emphasis on immediate or shorter-term effects in older adults than younger or middle-aged adults.^{16,17} Yet older adults may also possess altruistic attitudes and be willing to engage in activities to benefit future generations.^{18,19}

Suggestions for changes in clinical trial design and conduct are unlikely to have an impact unless they align with the largely unheard perspectives on motivators and barriers to participation in clinical trials of currently under-represented older adults with multimorbidity. A greater understanding of their perceptions about the challenges they face,

the activities they can perform, and motivators for their participation are key to engaging and enrolling them in clinical drug trials.

Our goal was to survey a nationally representative sample of older adults with multimorbidity to elucidate their priorities and perceptions about feasibility of participation and data collection, barriers to participation, and motivators regarding clinical drug trial participation. A secondary goal was to identify differences between genders, races, ethnicities, and very old adults compared with younger old adults.

METHODS

We conducted a cross-sectional survey using the National Opinion Research Center (NORC) at the University of Chicago. The NORC Foresight 50+ Panel was created in 2021 by the AARP and NORC and is a probability-based representative panel of civilian noninstitutionalized U.S. adults >age 50 years. The panel is stratified by age, race/ethnicity, education, and gender (36 total sampling strata). Details of panel recruitment and weighting are in the Supplemental Materials and online (Foresight50.NORC.org). Inclusion for this study was adults over age 65 with 3 chronic conditions. The final sample was made nationally representative by weighting. This weighting included base weights of the inverse probability of selection from the NORC frame further adjusted to account for unknown eligibility and nonresponse among eligible participants.

Surveys were conducted from March 13, 2023 to April 27, 2023, in English and Spanish in yes/no format, 3-point Likert scales for motivating factors based on cognitive testing of the survey (very important, somewhat important, not at all important) or (likely, neither likely nor unlikely, or unlikely) and 4-point Likert scales for scaling of the ease or difficulty of tasks based on cognitive testing and consultant recommendations (very difficult, somewhat difficult, somewhat easy, and very easy) for trial-related activities. Some demographic information had been previously collected from participants in the Foresight 50+ panel. NORC distributed the survey, collected responses, and provided unweighted and weighted results data to the investigators. Participant incentives were issued by NORC as Ameri-Points redeemable with Mastercard® Reward Cards, [Amazon.com](https://www.amazon.com) gift cards, movie tickets, or donations to a charity of the participants choice.

Descriptive statistics were calculated and response patterns were examined based on age (older versus younger than 80), gender (female versus male), and self-reported race and ethnicity (race data were collected with 15 designators and collapsed to five combined race and ethnicity categories as non-Hispanic White, non-Hispanic Black or African American, Hispanic, non-Hispanic Asian, other). Chisquare tests were used to assess association between categorical demographic variables and binary responses (“Yes” or “No”), whereas analysis of variance was applied to evaluate differences in continuous and scale responses across sub-groups. All descriptive statistics and comparative analyses were computed using survey weights provided by NORC. The svy estimation procedure in Stata version 17 was used for all statistical computation. A significance level of $\alpha = 0.05$ was used to determine statistical significance.

The University of California, San Francisco, (UCSF) Institutional Review Board (IRB) approved the study protocol and served as the single IRB for UCSF and the University of California, Los Angeles, through the UC IRB Reliance Registry. NORC IRB also reviewed and approved the survey for distribution and reporting.

RESULTS

Participants

Invitations were sent to 10,779 Foresight 50+ panel members, 3329 replied and were screened (31%) and 40% of these met eligibility criteria (see Supplemental Material). Surveys were received from 1340 and analyzed for 1318 (22 did not meet quality controls: incomplete, completion in <1/3 of median completion time, straight-lined eligible Likert grid questions (several had multiple poor-quality indicators). They were completed in Spanish in 0.4%, by phone in 13%, and internet by 87%. The survey took an average of 14 min online, and 24 min by phone.

Participant characteristics are presented in Table 1. Mean age was 74 ± 6.3 (SD) years with 54% between ages of 70–79, 18% between 80 and 89, and 1.3% were age 90 and above. Most were White, percentages of women and men were equal, and most lived in metropolitan areas. Participants self-reported 4.6 ± 2 of 16 common chronic conditions. The five most frequent were hyper-tension (83%), high cholesterol (73%), arthritis (49%) diabetes (39%), and thyroid disease (see Supplemental Material for full details). Notably, 36% primarily used land-line telephones, and 89% had internet access in their household (including dial-up). Twelve per cent had previously joined a clinical trial of a medication.

Potential barriers

Potential barriers to Clinical Drug Trial Participation are presented in Table 2. Although 94% overall had heard of clinical trials, fewer Black or African-American, and Hispanic or Latino than White respondents, and those age 80 had heard the term. Physical limitations that might make participation in a clinical trial hard included mobility problems and needing to be near a bathroom. Fifteen to nineteen percent indicated poor hearing or eyesight, or memory problems would make participation hard. Poor eyesight and difficulty with memory, and health conditions being an obstacle were more common in Black or African-American than White respondents.

The biggest concerns preventing participation in a clinical trial of a medication were fear of side effects (48%) and already taking too many medicines (44%). Lack of trust in the medical community was a concern in 12% overall but two-fold higher in Black or African-American than White respondents. Concerns of friends and family as an obstacle was infrequent but more common in women than men and in Black or African-American than in White, or Hispanic or Latino respondents. The possibility of receiving a placebo would deter 44% of respondents and a more frequent concern in women compared with men.

One-third of participants had some difficulty in connecting to a video visit (very difficult (14%) or somewhat difficult (19%)). Connecting to a video visit was perceived as more

difficult in women than men, in those age 80 and older and in Black or African-American in comparison with White, or Hispanic or Latino respondents. Two-thirds found it very or somewhat difficult to travel more than 1 h one-way to a research site with more women than men reporting this to be very difficult.

Potential motivators for clinical trial participation

Participants were most likely to consider joining a clinical drug trial for “a problem that they had” (63%) with more men (68%) than women reporting this (58%), with getting better care ranked very important in 79% and somewhat important in another 16% without difference by gender or race/ethnicity but less important in those over age 80 (Table 3). Black or African-American and Hispanic or Latino were more likely than White respondents to consider trials of medicines that would treat a condition that runs in their family or affects their community. Additional factors that might lead over 50% of participants to consider a clinical drug trial included learning more about what they would have to do in a trial, hearing experiences of physicians or researchers who conduct trials and from people who have taken part in clinical drug trials (Table 3). Although only 13% overall would be influenced by hearing from a community leader, more Black or African-American and Hispanic or Latino than White respondents indicated that this would lead them to consider a clinical drug trial.

Three quarters of respondents indicated participation in trials with time commitments of a half day (including travel) should receive payment in addition to transportation costs. Helping others and advancing science and/or benefiting others were considered very important in over half of participants and very or somewhat important in 88–95% without differences between genders or race/ethnic groups. For those aged 80 and above, fewer assigned these factors very important and more assigned no importance ($p < 0.01$), (Supplemental Materials), whereas getting a medicine for free and getting paid was reported as less important. Although 96% of participants gave some importance to testing medicines in people over age 65, those aged 80 were more likely to answer it was not at all important (8.5%; $p < 0.01$). Black or African-American and Hispanic or Latino respondents were more likely than White to answer it was not at all important (6.1% and 3.8% vs. 2%, respectively, $p < 0.02$).

Participants were most likely to consider a trial if it was recommended by a physician (80%) or a university healthcare system (58%) and less likely to consider invitations from pharmacies, laboratories, drug/pharmaceutical companies, government organizations, or nonprofit organizations (Figure 1 has overall responses; Supplemental Materials have subgroup responses). The greatest number (70.6%) would join a trial with only in-person visits (Figure 2) compared with combined video and in-person visits (63%), video-only (51%), or telephone only visits (43%). Eighty-six % who would join a trial comprising only video visits would also join a trial with only in-person visits. Female, Black or African-American respondents, and those age 80 were less likely to join if visits were video only. Eighty-five percent found it easy or very easy to have in-person visits during a clinical trial and 79–80% found it easy or very easy to have in-person visits in their home

or a physician's office. Sites such as pharmacies or senior centers for in-person visits were reported to be very difficult or somewhat difficult for about a third of respondents.

DISCUSSION

Our survey of a nationally representative sample of older adults with multimorbidity elicited distinct preferences for considerations of clinical drug trials. The overwhelmingly dominant reason for considering a clinical drug trial was to improve a health condition, and respondents would be most likely to consider a trial if a physician recommends it. In-person visits rather than video or telephone visits were preferred.

Lack of knowledge about clinical trials has been cited as a reason that underrepresented populations are not entered into trials.^{20–22} Ninety-three percent of our participants had heard the term clinical trial. Ninety-seven percent believed that it was very or moderately important that medicines are tested in older people before physicians prescribe them to older patients. These findings are similar to those of Anderson et al.²³ in an international survey of adults of all ages who reported that 84% felt clinical research is important and to a literature summary on underrepresented populations.¹⁴

Remote trial recruitment and participation has been suggested as a means of increasing clinical trial enrollment by decreasing participant burden. Home-based trials have elements that include web- and home-based data collection, telemedicine exams, mobile devices, in-home nurses, lab sample collection at home or point-of care testing, delivery of study treatment to home, and patients' report of adverse events to a central site. This assumes easy and universal remote access and capabilities. There still exists a digital divide that contributes to health disparities²⁴ with lower socioeconomic status and higher age-associated digital challenges. Completely digital or internet-based trials may decrease rather than increase enrollment of diverse and older adult trial participants.^{14,25} One-third of survey participants who are part of an established survey panel, responded that it would be very difficult or somewhat difficult for them to connect to a video visit despite 87% having internet connectivity in their households. Difficulty was greater in women than men, Black or African-American respondents than White respondents, and those aged 80 years and above—exactly the groups that are currently under-represented. About one-third of the sample primarily used land-line telephones and so cell phone data collection would not be likely.

Regardless of issues related to internet usage or cell-phones, remote trial participation may also be a deterrent to clinical trial enrollment for another reason. Namely, 69% of these older adults with multimorbidity would join a drug trial with only in-person visits. Half would not join a trial with only video visits and 57% would not join a trial with only telephone visits. Of the 51% who would consider joining a trial with only video visits, 86% were also willing to join a trial with all in-person visits. Thus, adding a video-only trial option to a trial could only potentially increase participation of older adults with multimorbidity by 8% overall. Others have similarly noted that one-on-one interactions are important to encourage retention as well as participation in clinical trials.^{3,19,26}

Lack of knowledge regarding details of a clinical trial may be an important and addressable problem. The top factor that respondents chose that might lead them to consider joining a clinical trial of a medication was knowing specifics of what they would do in a clinical trial. Importantly, they wanted to receive this information from prior clinical trial participants and physicians and researchers who conduct trials. They were most likely to join a trial if their physician recommended it. Few would be favorably influenced by solicitations from pharmacies, drug/pharmaceutical companies, or laboratories. This is probably due to their primary concerns of potential side effects of and already taking too many medications and wanting an opportunity to ask questions about their participation in individual in-person sessions. Fear of side effects has also been identified in surveys of the literature as a major reason that older patients with cancer do not enroll in studies for which they are eligible.^{27,28}

Mistrust of the medical community was low in our sample but somewhat higher in Black or African-American participants, similar to a recent survey reporting that about 8 in 10 Black Americans have at least a fair amount of confidence in medical scientists to act in the public's interest.²⁹ Enlisting support of community leaders has been suggested to partially address this obstacle.²⁰ Hearing about a trial from community leaders was chosen as a potential motivating factor in Black or African-American respondents (28%) and Hispanic or Latino respondents (22%) but was chosen by fewer than would be influenced by hearing from physicians or trial participants.

Obstacles such as the possibility of receiving a placebo, travel to research sites, and caregiver or family concerns that are frequently mentioned as deterring participation of older adults in clinical trials^{3,4,27,28,30} were not perceived as difficult for the majority of this sample. Three quarters to 80% found it very easy or easy to have in-person visits at their physician's office, a nearby hospital, medical center, community center, or pharmacy but not if travel were more than 1 h one-way. These findings are similar to those reported from both older and middle-aged cancer patients in which only 5% listed lack of transportation as the reason for not enrolling in a trial for which they were eligible.²⁸ A community survey pre-pandemic reported 88% of older respondents were willing to travel to an academic research site although driving was a greater burden for those over age 80 years and those living in rural areas.³¹ In contrast, a study from caregivers of patients with dementia concluded that home visits would offset fears of risks and doubled the willingness to participate in clinical trials.³² These disparate findings suggest that dementia patients represent a distinct subset of potential research participants and accommodations to ease the burden of participation in clinical trials may not have the same impact on enrollment in older adults with multimorbidity without dementia.

Responses to potential motivating factors for clinical drug trial enrollment highlighted that an important reason for almost 80% was to get better care for their condition. This was also evident in responses indicating that two-thirds would join a drug trial for a problem they had and fewer would consider prevention trials. This aligns with findings that older adults often consider decisions for a more immediate timeframe and value quality of life over quantity of life.^{16,17,33} Altruistic considerations of helping others and advancing science were very important considerations in slightly over half of participants. Nonetheless, the majority felt getting paid and getting a medicine for free was either very or somewhat important.

Limitations

We studied a nationally representative sample of older adults with multimorbidity enrolled in a survey panel willing to participate in opinion research but are limited to the number of surveys that they can complete in a year. Only 31% of those invited responded to the opportunity to complete this survey, and this may limit the generalizability. There were fewer racial or ethnic minority participants and few completed the survey in Spanish. It is possible racial or ethnic differences may have been underestimated or responses from individuals with less exposure to surveys might differ.

Conclusions

Our results suggest that many of the proposed changes in clinical drug trial design to increase enrollment of older patients with multimorbidity may not align with patient preferences. Major obstacles to participation include fear of side effects, concerns about taking multiple medications, mobility challenges, needing to be near a bathroom, and difficulty with video connections. The majority want to learn about clinical trials from physicians, researchers, and trial participants but will be most influenced by recommendations of their physicians. They prefer trials with in-person visits and are willing to travel to physician offices or medical centers to participate. Considering preferences of older adults is critical for researchers seeking to increase their enrollment in clinical trials.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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CONFLICT OF INTEREST STATEMENT

Schwartz has received research funding (grants) from the NIH and the FDA and holds stock in Pfizer, Amgen, Inspire Therapeutics, Ingeneron, Medtronic, Edwards, ThermoFisher, Inari; none of which are relevant to this manuscript. The remaining authors declare no conflicts of interest. Dr. Tarn has received grant funding from Bristol Myers Squibb and Pfizer for unrelated investigator-initiated projects.

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Key points

Older adults with multimorbidity:

- Are most likely to consider a clinical drug trial for a condition they have, to get better care, and if recommended by a physician or invited by a physician or academic medical center
- Want detailed information about what they would do in a clinical drug trial, worry about side effects of medications in clinical trials and that they are already on too many medications
- Find it difficult to connect to video visits and prefer clinical drug trials to have in-person visits that occur at nearby (<1 hour away) physician offices and medical centers, not local pharmacies, libraries, or senior centers

Why does this paper matter?

Older adults with multimorbidity have been under-represented in clinical drug trials. Suggestions by expert panels and federal agencies to increase participation include remote/internet modalities for outreach to recruit participants and to reduce transportation issues and mobility challenges during trials. Our results suggest that many proposed changes in clinical trial design to increase enrollment of older patients with multimorbidity may not be aligned with patient-reported preferences and may not increase enrollment of older patients with multimorbidity into clinical drug trials.

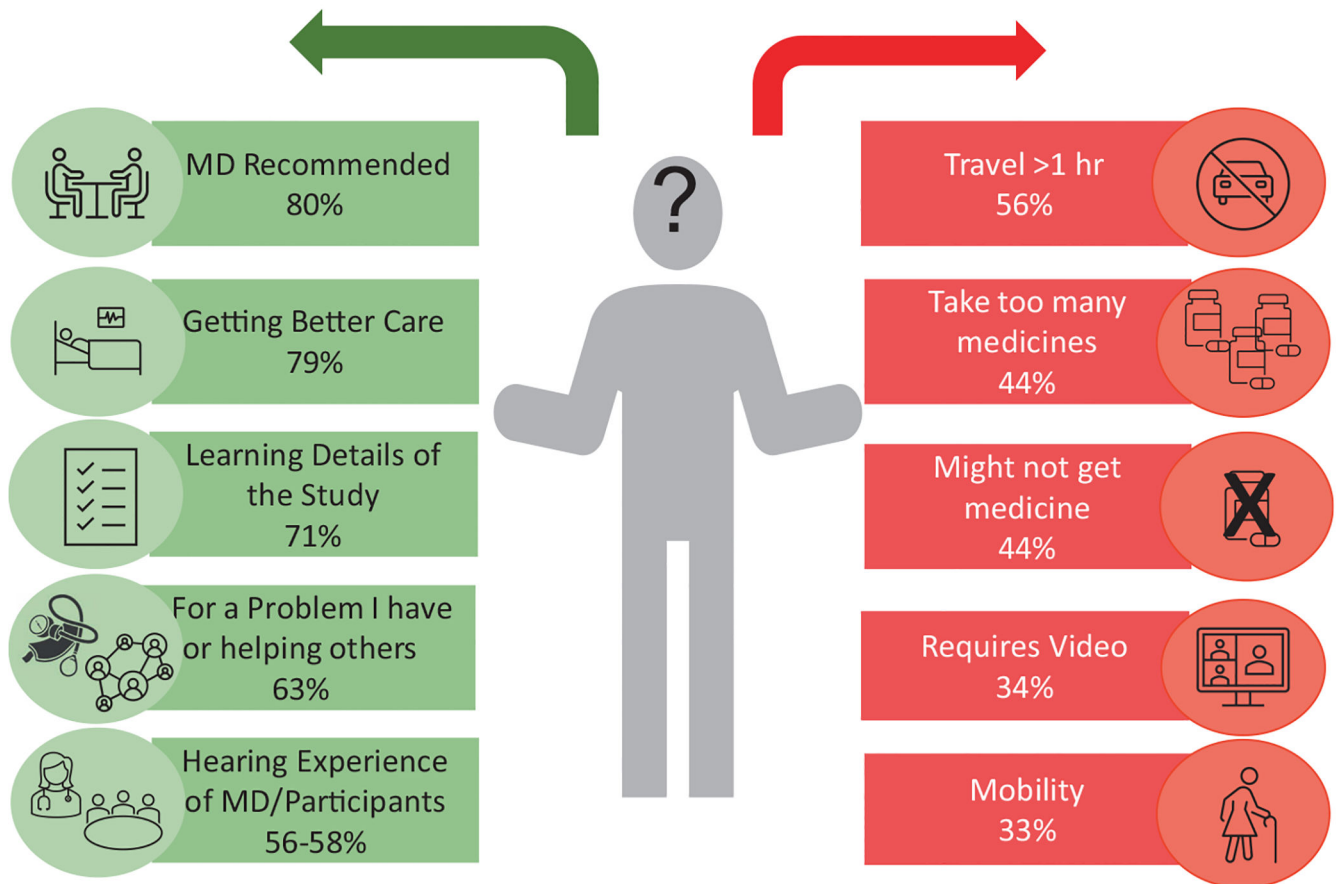
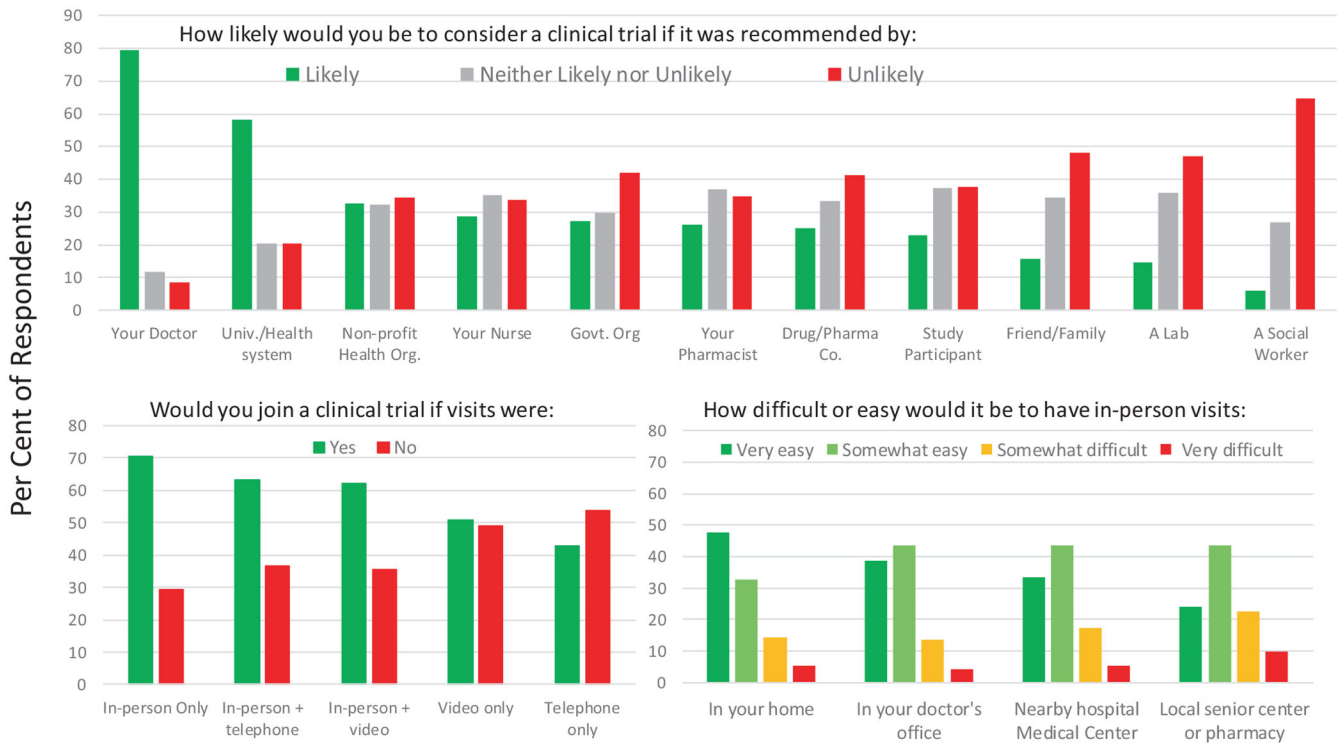


FIGURE 1.

Percentages of participants reporting perceived motivators for clinical drug trial participation are shown in green on the left of the slide and percentages of participants reporting the perceived barriers to participation are shown on the right in red.

**FIGURE 2.**

Responses to questions regarding considerations of participation and types and ease of visits during clinical drug trial participation. Percentages of participants with likelihood of considering a clinical drug trial if recommended by differing individuals or entities are presented in the top panel with green representing “likely”, gray representing “neither likely nor unlikely”, and red indicating “unlikely”. The percentage that would join trials if participation were in person, by video, by combined in person + video, by phone, or by combined in person and phone are presented in the lower left panel with green representing “yes” and red representing “no”. The difficulty or ease of potential visit sites for in-person visits is presented in the lower right panel with dark green representing “very easy”, light green representing “somewhat easy”, orange representing “somewhat difficult” and red indicating “very difficult”. Univ. = university; Govt = government, Org = organization; Pharma = pharmaceutical; Co = company; Lab = laboratory.

TABLE 1

Survey-weighted respondent characteristics.

Total <i>n</i>	1318
Age, years, mean (SD)	74.0 (6.3)
Less than 80, <i>n</i> (%)	1063 (80.7)
80 or more, <i>n</i> (%)	255 (19.3)
Gender, <i>n</i> (%)	
Male	663 (50.3)
Female	655 (49.7)
Race/ethnicity, <i>n</i> (%)	
White, non-Hispanic	1022 (77.5)
Black or African American, non-Hispanic	148 (11.2)
Hispanic or Latino	102 (7.7)
Asian, non-Hispanic	13 (1.1)
Other	33 (2.5)
Number of prescription medications, mean (SD)	7.7 (3.6)
Number of medical conditions mean, (SD) ^a	4.4 (1.8)
Survey mode, <i>n</i> (%)	
Phone	235 (17.8)
Internet	1083 (82.2)
Geographic region, <i>n</i> (%)	
Northeast	254 (19.3)
Midwest	284 (21.5)
South	530 (40.2)
West	249 (18.9)
Metropolitan vs. rural area, <i>n</i> (%)	
Nonmetropolitan	230 (17.4)
Metropolitan	1088 (82.6)
Education level, <i>n</i> (%)	
Less than high school	163 (12.4)
High school graduate or equivalent	418 (31.7)
Some college/associate degree	313 (23.7)
Bachelor's degree	199 (15.1)
Post graduate study/professional degree	225 (17.1)
Annual household income, <i>n</i> (%)	
Less than \$30,000	349 (26.5)
\$30,000 to under \$60,000	433 (32.8)
\$60,000 to under \$100,000	282 (21.4)
\$100,000 or more	255 (19.3)
Adequate health literacy ^b	1088 (82.9)

^aOf 16 conditions queried in the survey (selected from the 10 most frequent conditions in older adults (minus dementia), plus cancer, liver disease, and stroke commonly included in comorbidity indices, and atrial fibrillation, osteoporosis, gastroesophageal reflux/ulcers and thyroid disorders present in over 10% of older adults without gender specificity).

^bAdequate health literacy defined as those who were 'extremely' or 'quite a bit' confident with filling out medical forms by themselves.³⁴

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TABLE 2

Potential barriers to clinical drug trial participation: overall and by gender, race/ethnicity, and age.

	Total, n (%)	Female	Male	P	White, NH ^a	Black or AfrAm ^b NH	Hispanic or Latino	P	<80 years	80 years	P
Total, n (%)	1318 (100)	655 (49.7)	663 (50.3)		1022 (77.5)	148 (11.2)	102 (7.7)		1063 (80.7)	255 (19.3)	
Ever heard of clinical trials	1231 (94)	607 (93.9)	624 (94.1)	^	986 (96.6)	118 (79.6)	89 (87.5)	***	1008 (95.5)	223 (88.1)	**
Mobility	429 (32.6)	243 (37.1)	187 (28.1)*	*	314 (30.7)	67 (45.3)	35 (34.5)	^	320 (30.1)	109 (42.9)	**
Need to be near bathroom	334 (25.4)	191 (29.1)	144 (21.7)*	*	253 (24.8)	51 (34.4)	25 (24.5)	^	252 (23.7)	83 (32.4)	*
Hearing	256 (19.4)	119 (18.2)	137 (20.6)	^	200 (19.6)	39 (26.3)	16 (16.1)	^	177 (16.7)	79 (30.8)	***
Eyesight	148 (13.9)	107 (16.3)	91 (13.7)	^	128 (12.6)	53 (35.5)	17 (16.2)	***	148 (13.9)	50 (19.6)	^
Memory	240 (18.2)	133 (20.3)	107 (16.1)	^	168 (16.5)	43 (28.9)	29 (28.1)	**	72 (28.3)	72 (28.3)	**
Health conditions	350 (26.5)	201 (30.7)	149 (22.4)	*	254 (24.9)	65 (43.8)	26 (25.6)	**	262 (24.6)	88 (34.6)	*
Afraid of side effects	350 (26.5)	346 (52.8)	286 (43.1)	*	466 (45.6)	87 (58.4)	54 (52.5)	^	523 (49.2)	109 (42.6)	^
Take too many medicines	632 (44.1)	317 (48.4)	265 (39.9)	*	414 (40.5)	96 (64.9)	53 (51.5)	**	468 (44.0)	113 (44.4)	^
Lack of trust	158 (12.0)	96 (14.6)	62 (9.4)	°	109 (10.6)	37 (25.1)	1 (1.0)	**	133 (12.5)	25 (9.8)	^
Friends/family would object	222 (16.8)	146 (22.3)	76 (11.4)	***	148 (14.5)	53 (35.8)	10 (9.7)	**	178 (16.7)	44 (17.1)	^
Might not get Medicine	566 (43.6)	343 (53.3)	223 (34.1)	***	427 (42.2)	85 (58.1)	39 (40.5)	^	446 (42.6)	120 (47.8)	^
<i>How difficult or easy would it be for you to connect to a Video Visit?</i>											
Very difficult	179 (13.8)	122 (18.8)	58 (8.8)	**	117 (11.6)	46 (31.5)	3 (2.6)	***	131 (12.5)	49 (19.4)	**
Somewhat difficult	256 (19.7)	131 (20.2)	125 (19.2)		214 (21.3)	18 (12.6)	18 (18.0)		183 (17.4)	74 (29.4)	
Somewhat easy	462 (35.5)	226 (34.8)	236 (36.2)		370 (36.7)	35 (23.7)	40 (40.0)		390 (37.2)	71 (28.4)	
Very easy	403 (31.0)	169 (26.1)	233 (35.8)		307 (30.4)	47 (32.1)	39 (39.4)		345 (32.9)	57 (22.8)	
<i>How difficult or easy would it be for you to Travel > 1 hour to a visit</i>											
Very difficult	376 (29.0)	236 (36.7)	140 (21.4)	***	293 (29.1)	44 (29.5)	27 (27.0)	°	290 (27.8)	86 (34.1)	^
Somewhat difficult	475 (36.6)	255 (39.7)	220 (33.6)		395 (39.2)	34 (23.0)	38 (38.1)		383 (36.6)	92 (36.7)	
Somewhat easy	300 (23.2)	99 (15.5)	201 (30.7)		218 (21.7)	40 (27.4)	21 (20.9)		248 (23.7)	52 (20.8)	
Very easy	146 (11.3)	52 (8.1)	94 (14.3)		100 (10.0)	30 (20.0)	14 (14.0)		125 (11.9)	21 (8.4)	
<i>Would you join a clinical trial if visits were</i>											
In-person only	906 (70.6)	410 (64.0)	496 (77.2)	***	706 (70.7)	82 (57.3)	79 (82.3)	^	746 (71.8)	161 (65.7)	^
Video only	648 (51.0)	292 (46.3)	356 (55.6)	**	518 (52.5)	51 (35.6)	54 (57.3)	°	566 (54.9)	82 (34.2)	***
Video and in person	807 (63.3)	377 (59.9)	430 (66.5)	°	625 (63.2)	90 (62.1)	65 (67.2)	^	686 (66.1)	121 (50.9)	**

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NH = non-Hispanic, @Afr.Am = African American. Data are omitted for racial categories of Asian, mixed race, and those self-reporting "other" race as numbers for these groups was very small, $n = 46$ or 3.5% of sampled).

* $p < 0.05$;

** $p < 0.01$;

*** $p < 0.001$;

◦ $p = 0.05-0.10$;

∧ $p > 0.10$.

TABLE 3

Potential motivating factors for joining a clinical drug trial.

	Gender			Race/ethnicity				Age			
	n (%)	Female	Male	P	White NH ^a	Black or AfrAm@NH	Hispanic or Latino	P	<80 years	80 years	P
Total, n (%)	1318 (100)	655 (49.7)	663 (50.3)		1022 (77.5)	148 (11.2)	102 (7.7)		1063 (80.7)	255 (19.3)	
<i>I would consider a clinical trial for</i>											
A problem I have	834 (63.3)	382 (58.3)	452 (68.2)	**	665 (65.1)	81 (54.4)	63 (61.5)	^	691 (65.0)	143 (56.3)	°
To prevent a problem	576 (43.7)	269 (41.1)	306 (46.2)	^	431 (42.2)	79 (53.4)	44 (43.2)	^	476 (44.7)	100 (39.3)	^
For a problem that runs in my family	491 (37.2)	257 (39.2)	234 (35.3)	^	360 (35.2)	86 (57.9)	31 (30.7)	**	404 (38.0)	87 (34.0)	^
For problem affecting someone close to me	191 (14.5)	80 (12.2)	111 (16.7)	°	130 (12.7)	40 (26.8)	15 (15.1)	*	162 (15.2)	29 (11.3)	^
For problem that affects my community	138 (10.4)	66 (10.1)	71 (10.8)	^	93 (9.1)	32 (21.7)	11 (11.2)	**	104 (9.8)	34 (13.2)	^
<i>Thinking about joining a clinical trial involving taking a medicine, how important is getting better care for your condition</i>											
Very Important	1027 (78.9)	510 (79.2)	517 (78.6)	^	780 (77.1)	132 (89.2)	85 (86.2)	^	844 (80.3)	182 (72.7)	**
Somewhat important	215 (16.5)	99 (15.3)	116 (17.6)		180 (17.8)	14 (9.3)	10 (9.8)		173 (16.5)	42 (16.6)	
Not at all important	61 (4.6)	36 (5.5)	25 (3.8)		52 (5.1)	2 (1.5)	4 (4.0)		34 (3.2)	27 (10.7)	
<i>Which of the following might lead you to consider joining a clinical trial?</i>											
Learning more about what I would do	935 (71.0)	447 (68.2)	488 (73.6)	^	642 (62.8)	97 (65.2)	62 (61.2)	^	780 (73.4)	155 (60.9)	**
Hearing experiences of participants	733 (55.6)	362 (55.3)	371 (55.9)	^	557 (54.6)	90 (60.9)	60 (58.7)	^	614 (57.8)	119 (46.7)	*
Hearing experiences of clinical trial doctors	769 (58.4)	364 (55.6)	405 (61.1)	^	597 (58.4)	82 (55.2)	60 (58.7)	^	626 (58.9)	143 (56.3)	^
Hearing about a trial my community leaders support	170 (12.9)	90 (13.7)	80 (12.1)	^	102 (10.0)	41 (28.0)	23 (22.3)	***	135 (12.7)	35 (13.6)	^
Having a Trial partner/navigator	306 (23.2)	172 (26.3)	134 (20.2)	°	224 (21.9)	51 (34.5)	28 (27.8)	*	247 (23.2)	59 (23.1)	^
Trial Staff who speak my language	458 (34.7)	225 (34.4)	233 (35.1)	^	346 (33.9)	71 (48.0)	35 (34.5)	*	370 (34.8)	88 (34.7)	^

^aNH = non-Hispanic. @AfrAm = African American. Data are omitted for category of Other (Asians and other, n = 46 or 3.5% of sampled).

* $p < 0.05$;

** $p < 0.01$;

*** $p < 0.0001$;

° $p = 0.05-0.10$;

^ $p > 0.10$.