BUILDING CLINICAL TRIAL AND HEALTH RESEARCH ACCESS

for People of Color via Community Health Centers (CHCs)

GRANTEE:

neighborhood HEALTHCARE

LEAD ADVISOR AND PROJECT MANAGER:

ALTURA

Made possible by a Health Equity and Diversity Grant from Genentech, a member of the Roche Group

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The toolkit will be available in January 2024 and can be requested at info@alturastudies.com.

Made possible by a Health Equity and Diversity Grant from Genentech, a member of the Roche Group

Executive Summary

The *Building Clinical Trial and Health Research Access for People of Color via Community Health Centers* grant examined barriers to clinical study participation among executive leaders, providers, and medical staff at community health centers (CHCs) nationally. Neighborhood Healthcare, the CHC grantee, and Altura, the project manager and lead advisor, collaborated to initiate and execute this project.

The lack of racially and ethnically diverse populations (REPs) representation in clinical trial participants has long been a challenge in medical research. Based on U.S. census data, about 40% of the U.S. population is racially and ethnically diverse. However, less than 25% of clinical trial participants fit into this category.[1]

The core premise of this project is that REPs highly value and trust people who provide healthcare and health information in their communities. It therefore hypothesizes that CHCs could be valuable contributors, either directly or indirectly, for all types of clinical studies, thereby improving on the lack of diversity that has plagued clinical research historically.

For this project, the term "clinical studies" refers to a spectrum, ranging from basic observational studies to clinical trials involving investigational medications subject to FDA review. This range includes a wide array of non-investigational intervention clinical studies (e.g., behavioral, educational services and technology) that reside between these extremes. Given that clinical trials of investigational medications exhibit the largest diversity gap, are the most challenging to conduct, and have the greatest impact on equity in innovation, this publication will predominantly focus on this type of clinical study.

[1] U.S. Food and Drug Administration [FDA], 2021, *Drug Trials Snapshots Summary Report*. [Jul; 2021]; https://www.fda.gov/media/145718/download 2021 2:2021.

For this project, the term "people of color" refers to any persons who identify as non-white/Caucasian, such as Black/African American, Asian, Hispanic/Latino, Native Hawaiian/Pacific Islander, American Indian/Alaskan Native, or another race. This population is also collectively referred to as "racially and ethnically diverse populations" or "REPs". Throughout this white paper, the term "people of color" will be used interchangeably with the term REPs.

When REPs are inadequately represented in studies, the research findings may not be generalizable to them. Healthcare practitioners who treat REPs may be left without key information concerning the effectiveness of various treatments or other interventions for their patients.

> ***"If the [clinical trial] that showed this improvement … isn't generalizable … to [my patients], then … I'm conjecturing on whether this is going to be beneficial or not. When I look at my patient and say, 'Hey, you should do this,' I'm actually tempering my own skepticism about whether this is the right move or not because [the trials are] not based in populations that look like the patient in front of me or did not have a representative sample there." — Medical provider***

This study answered three fundamental questions to help determine a path for CHCs to appropriately support diversity in clinical studies, either directly or indirectly:

1. Do CHCs feel it is important to involve people of color in clinical trials? (Figure 16)

TAKEAWAY: Overwhelmingly, yes as 91% of respondents felt it was very important to involve REPs in clinical trials. This result is highly encouraging and highlights that CHCs are aware of the lack of representation of these populations in clinical studies. More importantly, it underlines the everyday impact this gap has on the care they provide to their patients daily. Furthermore, this result supports a strong alignment between the intent of this grant and the objectives of CHC stakeholders to provide more resources and options to the patients they serve, specifically REPs.

2. To what extent should CHCs be involved in clinical studies? (Figures 9 and 10)

TAKEAWAY: Most CHCs believe they should be involved in some way across the spectrum of clinical studies. An overwhelming majority (86.5%) noted that their CHC should be involved in a mix of observational studies and clinical trials, while among this number, most favored more involvement with observational studies. Although there is a desire for clinical trials within CHCs, in practice, their role is

restricted, primarily due to limited access to studies, inadequate resources, and/or a lack of expertise. A large majority thought that CHCs should at least let their patients know about clinical trials so they have an option to pursue them if interested. A total of 54.1% said that they could discuss clinical trial options with their patients, which is a straightforward approach with low resource investment required. Only 2% believe that CHCs should not be involved with clinical trials in any way. In addition, 37.8% felt that they could refer patients to a study site, which is also a lower-effort option for CHCs.

3. How can CHCs overcome barriers to clinical study participation? (Figure 13)

TAKEAWAY: Many barriers exist for CHCs to build a research infrastructure with the right staff and resources. Fortunately, many of these barriers can be overcome by selecting the appropriate studies and level of engagement for each CHC's specific organization. Building and operating a dedicated research site within a CHC requires significant human and financial resources. However, CHCs can establish relationships with local or regional study sites to facilitate patient referrals. Given that some patient groups may face transportation or scheduling challenges, online and virtual studies are viable alternatives. Any clinical study that seeks to understand the impact of medical or health-related interventions on REPs will help inform providers of better care options in the future.

Considering that CHCs are rarely involved in clinical trials, respondents expressed a strong belief in the benefits of such trials. 81.7% of respondents felt that clinical trials are needed for medical innovation (Figure 8). Of particular interest, many felt the proper safety precautions were in place to mitigate risks.

Engaging CHCs will mobilize a major component of the healthcare delivery model that serves over 32 million patients, mostly REPs. This will foster the trust and connections necessary to support local, regional, and national clinical studies.

A current participant in a phase III clinical trial, an African American member of Neighborhood Healthcare, stated:

> ***"It made a difference knowing that I had a link to the study center since it was being done at Neighborhood Healthcare. When considering the clinical trial, that made the study 'more legitimate.'"***

Call to Action: CHCs

CHCs are each called to take their own appropriate next step to support clinical studies. How this is done is of secondary importance, as long as it aligns both with patient care needs and with the CHC's available resources (e.g., expertise, resources, time, funds). Special consideration should be given to supporting any clinical study that directly aims to expand diversity and representation of REPs.

Options for CHCs to Participate in Clinical Studies of All Types

Source: Altura

Call to Action: Life Science and Research Organizations

Life Science and Research Organizations are called to engage CHCs in some capacity in order to increase the study participation of REPs. For any clinical study collaboration with CHCs, a long-term perspective is advised, for which the roles and interests of the parties are aligned. Below are some options for engaging CHCs:

- Conduct retrospective reviews of medical data (e.g., EHR, data warehouse, lab, claims, Rx data) for a medical condition or intervention
- Participate in observational studies
- Serve as a source for prescreened patients for clinical trials
- Serve as a satellite site for clinical trials (delegated roles to main study site)
- Serve as a main or primary site for clinical trials

The findings of this study affirm that CHCs, which provide care for a large proportion of REPs, offer a meaningful and underutilized resource to help address the lack of diversity in clinical studies. This white paper is intended to provide CHCs, CHC trade organizations, research institutions, life science companies, and other stakeholders with information to support the involvement of CHCs in clinical studies and thereby increase the participation of REPs in these studies.

A related toolkit will be made available to serve as a guide and will include information on how to organize resources and become involved with clinical studies of all types, how to distinguish participation options and study types, and how CHCs can be directly and indirectly involved with clinical trials. The toolkit will be available in January 2024 and can be requested at info@alturastudies.com.

Introduction

Neighborhood Healthcare, a Federally Qualified Health Center (FQHC) based in Escondido, California, received a grant from Genentech's Health Equity Fund to study and increase the diversity of clinical study populations. Altura served as lead advisor and project manager for the grant, *Building Clinical Trial and Health Research Access for People of Color via Community Health Centers*.

A national survey of 246 respondents (executive leaders, medical providers, and medical staff) from 41 CHCs uncovered a wide range of perspectives, issues, needs, and opportunities. These findings are highlighted in this white paper. Additionally, a CHC-specific toolkit is available to inform and guide CHCs on how to support patient participation in clinical and health studies of all types.

For this project, the term "**people of color**" refers to any person or group of people who identify as non-white/Caucasian, such as Black/African American, Asian, Hispanic/Latino, Native Hawaiian/Pacific Islander, American Indian/Alaskan Native, or another race. This population is also collectively referred to as "racially and ethnically diverse populations" or "REPs". Throughout this white paper, the term "people of color" will be used interchangeably with the term REPs.

The term "**community health center**" (CHC) generally refers to any type of grant-funded health center, such as a Federally Qualified Health Centers (FQHC) and FQHC Look-Alikes in any type of setting (e.g., rural, urban).

Clinical studies involve collecting data about patient experiences and outcomes, as well as the safety and efficacy of medical interventions. For this project, the term "clinical studies" refers to a spectrum, ranging from basic observational studies to clinical trials involving investigational medications subject to FDA review. Each category is defined as follows:

- **OBSERVATIONAL STUDIES:** This type involves observing and/or surveying of patient volunteers in natural care settings. Observational studies are the most common and are typically funded by government or healthcare foundation grants that seek knowledge about a specific medical condition, health service, or patient population.
- **CLINICAL TRIALS:** This type involves investigational medical interventions to determine if a treatment or medication is safe and effective. It requires oversight and approval by a governmental agency (e.g., Food and Drug Administration, or FDA) and an Institutional Review Board (IRB).

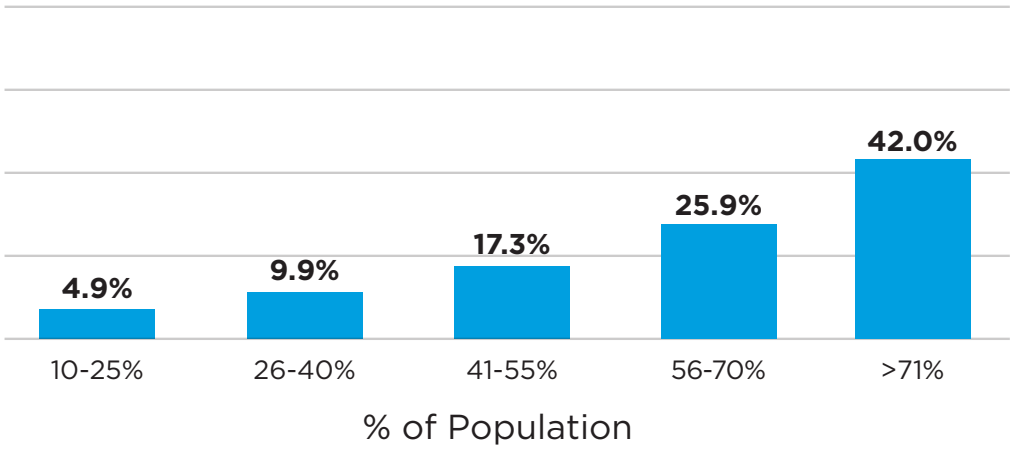
This range includes a wide array of non-investigational intervention clinical studies (e.g., behavioral, educational services and technology) which should be considered as study options for CHCs.

The Challenge

The lack of representation of racially and ethnically diverse populations (REPs) in clinical trial participants has long been a challenge. According to U.S. census data, approximately 40% of the U.S. population is racially and ethnically diverse. However, less than 25% of clinical trial participants fall within this category.[2]

The underrepresentation of diverse populations in clinical studies deepens health disparities. Critical information may be overlooked, such as genetics, risk factors, and differences in disease presentation. Without adequate data about the safety and efficacy of new and existing interventions for REPs, these populations cannot fully benefit from medical advances.

Figure 1. Approximately what percentage of your patient population are people of color?

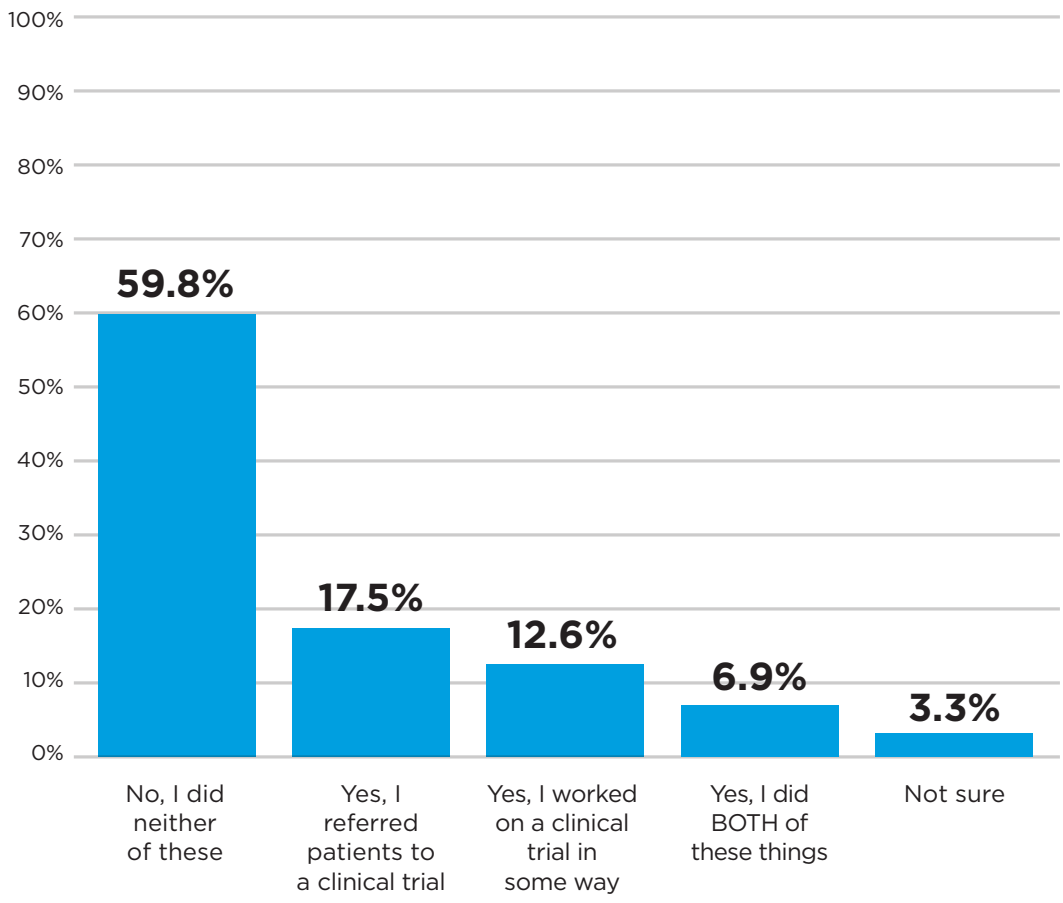


Respondents: executive leader cohort, *n* = 81.

More than half of patients served by CHCs nationally are racially and ethnically diverse. For CHCs in this survey, REPs represented the majority of patients (Figure 1). Yet the vast majority of CHCs do not participate as clinical study sites and rarely refer patients to studies (Figure 2).

[2] U.S. Food and Drug Administration [FDA], 2021, *Drug Trials Snapshots Summary Report*. [Jul; 2021]; https://www.fda.gov/media/145718/download 2021 2:2021.

Figure 2. In your current or past roles at a CHC, have you ever worked on a clinical trial in some way or referred patients to a clinical trial?



Respondents: all cohorts n = 246

This lack of involvement leads to underrepresentation in studies and to data that is biased and potentially not relevant to CHCs' patient populations. Engaging CHCs in clinical studies presents a unique opportunity to increase representation and improve the validity of clinical evidence for REPs.

Project Premise and Goals

The core premise of this project is that REPs highly value and trust people who provide their primary healthcare or healthcare information in their communities. It therefore hypothesizes that CHCs could be valuable contributors, either directly or indirectly, for all types of clinical and health research. Engaging CHCs will mobilize a major component of the healthcare delivery model that serves over 32 million patients, mostly REPs. This will foster the trust and connections necessary to support local, regional, and national clinical studies.

The goals of this project were to improve clinical study access for REPs and advance diversity by:

1. **Identifying and analyzing real and perceived barriers to CHC participation in clinical studies.**
2. **Developing a framework for CHC participation in broad areas of research interest.**
3. **Expanding CHC participation in clinical studies, whether directly as study sites, or indirectly by referring patients for clinical trials and health studies.**
4. **Building interest among life science companies, academic centers, and other study sites in partnering with CHCs and supporting their involvement.**

National CHC Survey Results

METHODS: Survey Development

This project involved a cross-sectional study of clinical study perceptions among CHC executive leaders, medical providers and medical staff. The survey included both single-choice and multiple-choice questions, with some questions allowing respondents to provide free-text responses using the option "Other - Please describe". Altura developed the survey and interview protocol with feedback from Neighborhood Healthcare, the project's advisory panel, and Health Assessment and Research for Communities (HARC). HARC conducted a literature search to validate the survey, as well as a final review to confirm statistical integrity. The project's advisory panel approved the final survey questions and methods. Lastly, using the exemption review process, an IRB determined that the study qualified for an exemption from the need for IRB review in accordance with 45 CFR 46.104(d)(2(ii)).

METHODS: Data Collection and Analyses

Altura's study team administered the survey online to CHCs beginning in early April 2023 and concluded data collection in July 2023. Descriptive statistics were performed for all questions of the survey (e.g., percentages of all response options). Additionally, the study examined statistically significant differences between executive leaders, medical providers, and medical staff regarding CHC involvement in clinical trials. A comparative chi-square analysis was performed for these groups, with a p-value less than .05 considered statistically significant.

CHCs nationally were invited to participate in the project regardless of size or location. Altura's study team contacted CHCs from every state through publicly available records, and many state CHC and primary care associations invited their members to join via email and announcements at membership meetings. A deadline was given, and the first 40 CHCs to respond were included in the survey (note: the final total was 41). The only factor considered for participation, due to the grant's focus, was that the CHC's racially and ethnically diverse population was 15% or greater. Participating CHCs were each asked to invite two executives (C-suite, leaders), two medical providers (doctors, nurse practitioners, physician assistants) and two medical staff (medical assistants, registered nurses, licensed vocational nurses).

Figure 3.

What type of CHC are you considered?

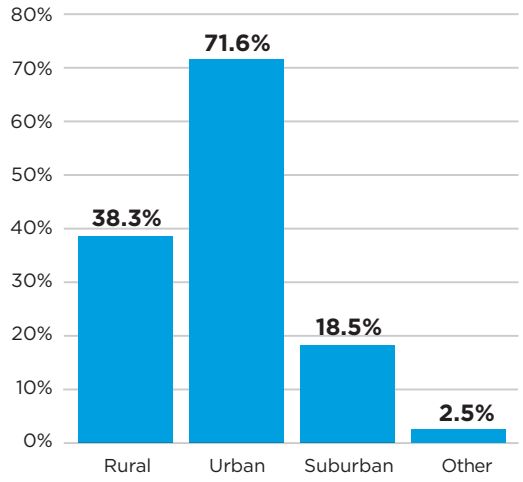
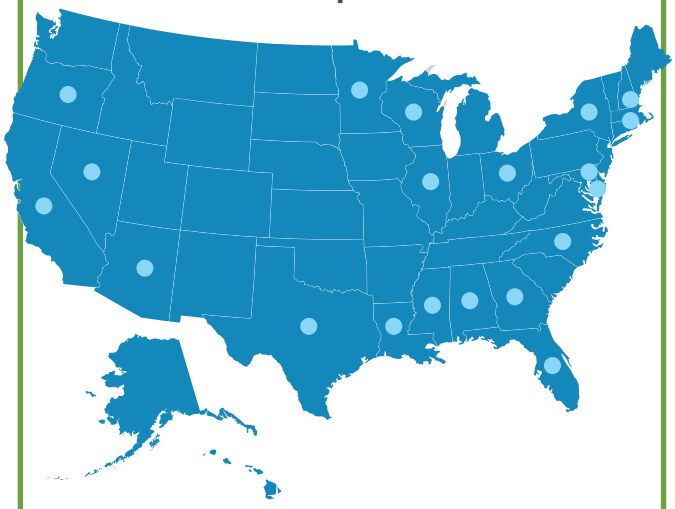


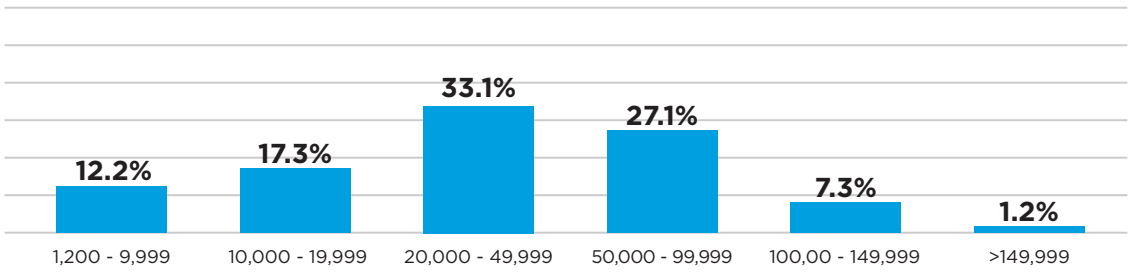
Figure 4.

States Represented



Respondents: executive leader cohort, *n* = 81.

Figure 5. Approximately how many total unique active patients does your CHC care for?



Respondents: executive leader cohort, *n* = 81.

The survey included 246 respondents, comprising 32.8% executive leaders, 34.0% medical providers, and 33.2% medical staff from 41 CHCs representing 20 states as well as various types and sizes of CHCs (Figures 3, 4, and 5).

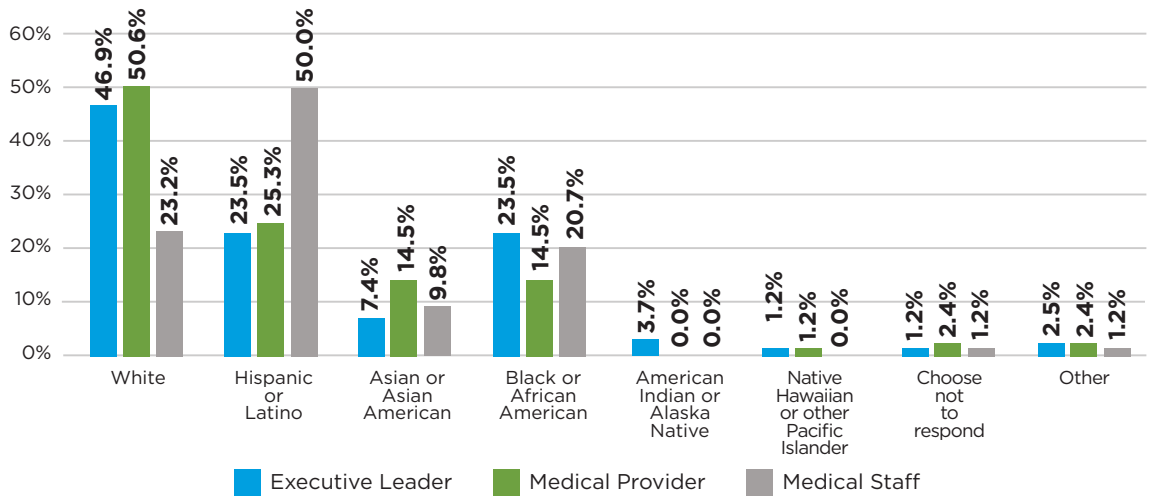
The study team also conducted phone and video interviews with 20 CHC staff members from 10 states (Arizona, California, Florida, Illinois, Louisiana, Massachusetts, Minnesota, North Carolina, Ohio, and Texas) and the District of Columbia. Seven interviewees were executive leaders, six were medical staff members, and seven were medical providers. The semi-structured interviews more deeply explored clinical study views in the CHC setting, with responses mirroring the survey results and adding other insights. Interviewees were encouraged to expand on topics or introduce new ones. Interviews were audio-recorded and the transcripts analyzed to identify common themes.

Key Findings

Among all respondents, the top three roles were physician (18.3%), registered nurse (13.0%), and medical assistant (13.0%). The average number of years worked at any CHC was 9.2, ranging from less than 1 year to 40 years.

Related to age, most respondents were in their 30s (30.0%), 40s (28.7%), or 50s (21.1%). More than two-thirds of respondents (69.1%) identified as female, 30.1% as male, and 0.8% as transgender.

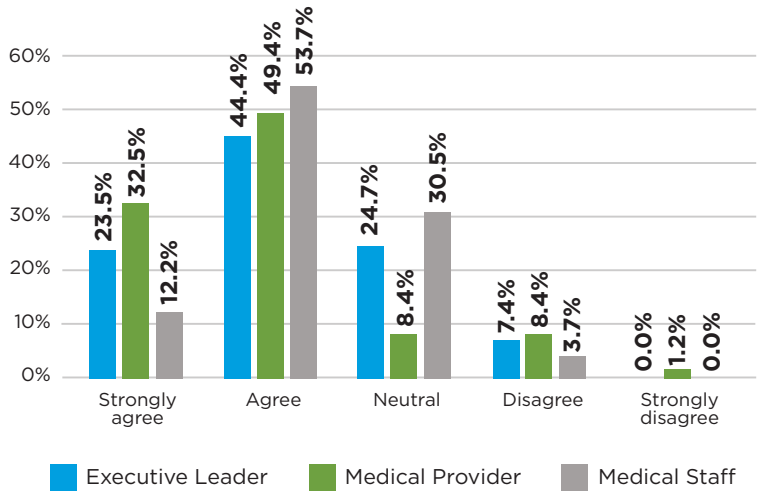
Figure 6. With what ethnicity or race do you identify?



Respondents: all cohorts n = 246

In response to the question about their self-identified ethnicity or race, 40.2% of respondents identified as White, 32.9% as Hispanic or Latino, 19.5% as Black/African American, and 10.6% as Asian or Asian American. Respondents who selected "Other" (2.0%) identified as South Asian, Hmong, Central Asian and Cape Verdean (Figure 6).

Figure 7. How do you feel about this statement: I am very knowledgeable about observational studies and clinical trials and their differences.



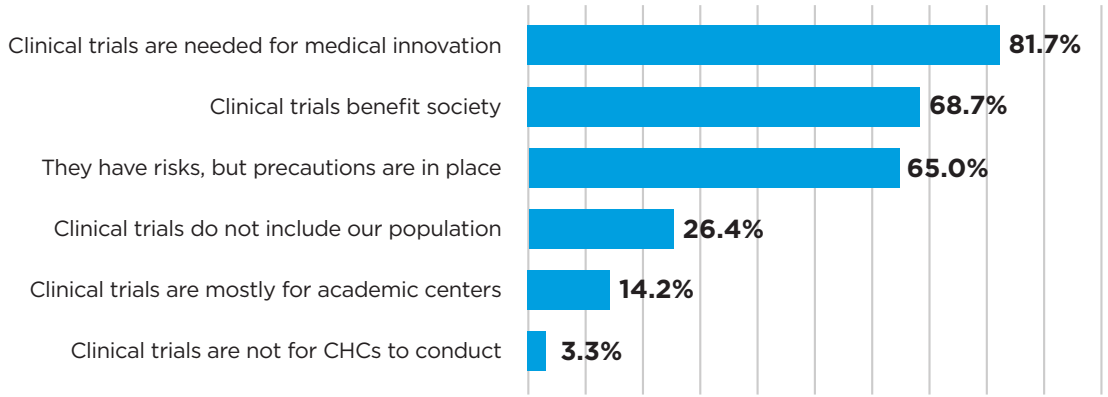
Respondents: all cohorts n = 246

Most respondents indicated they had a good understanding about observational studies, clinical trials, and their differences. (Figure 7).

It should be noted, based on the interviews conducted, that clear understanding about the different types of clinical studies, especially clinical trials, may be overstated in the survey results. Interviewees had limited experience with clinical trials. Only one executive leader reported such experience, and several others mentioned experience with observational studies or other non-clinical trial research.

Like the executives, only one staff member and one medical provider reported clinical trial experience. Several providers mentioned past experience with conducting observational studies as residents or medical or doctoral students, but not in their current practice.

Figure 8. What are your general impressions of clinical trials?



Respondents: all cohorts n = 246. Selected all that apply.

All respondents were asked about their general impressions of clinical trials and could select any statements that applied (Figure 8). The overall response was positive and very few (3.3%) felt that clinical trials were "not for CHCs to conduct." While many felt confident that safety precautions are in place to mitigate risks, additional education and awareness about the oversight and systems in place could further enhance trust.

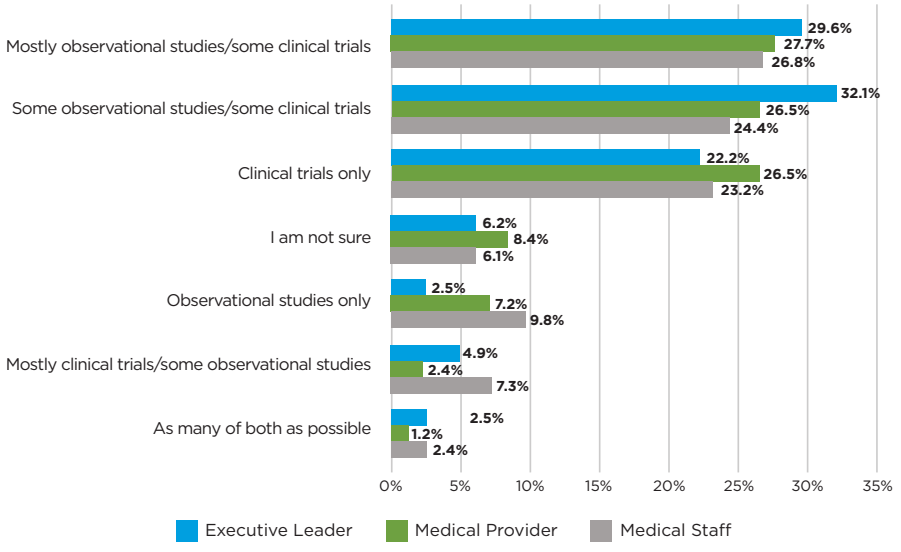
The 20 interviewees were not explicitly asked about their impressions of clinical trials, but nonetheless shared their general thoughts throughout the interviews. Executive leaders and medical providers discussed the importance of studies for patients and medical science. Several medical staff members also emphasized their benefits for underrepresented communities.

> ***"I like the idea [of CHCs taking part in studies]. It's just something where all the pieces have to come together.... [It] needs to be win, win, win all across for the underrepresented groups.... It should benefit the clinic, it should benefit the drug company, it should be structured so that everyone benefits. As long as [that] happens, I'm all for it." — Medical staff member***

Interviewees expressed some reservations about clinical trials, such as the challenge of obtaining informed consent and ensuring appropriate compensation. Overall, however, they saw clinical trials as important for both the medical community and the patient population.

Figure 9.

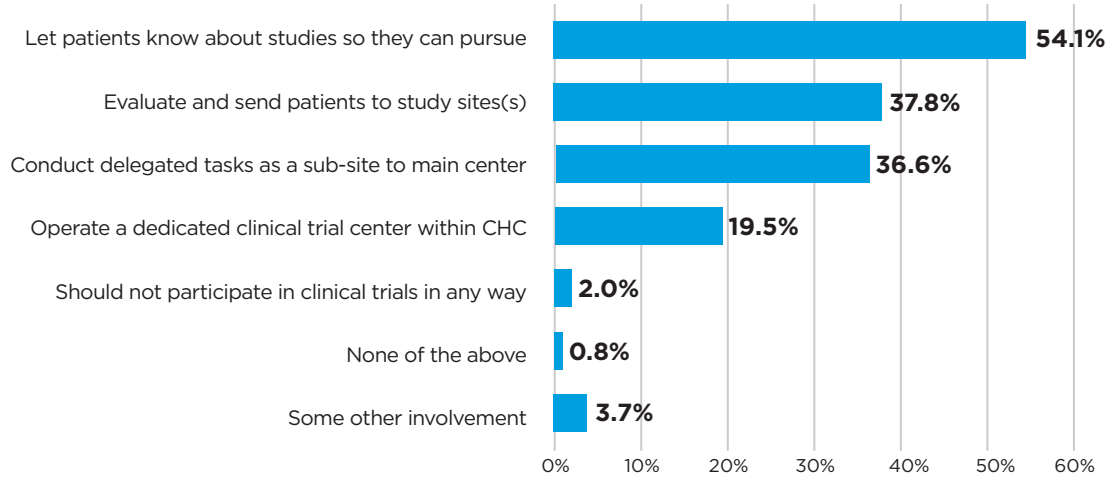
Which type or mix of clinical studies do you believe CHCs should participate in?



Respondents: all cohorts n = 246

Respondents held varying opinions on the types of clinical studies CHCs should participate in, but generally agreed that some combination of clinical trials and observational studies is appropriate. While there were some slight differences based on the respondents' roles, these were not significant (Figure 9).

Figure 10. To what extent do you feel your CHC could be involved with clinical trials?



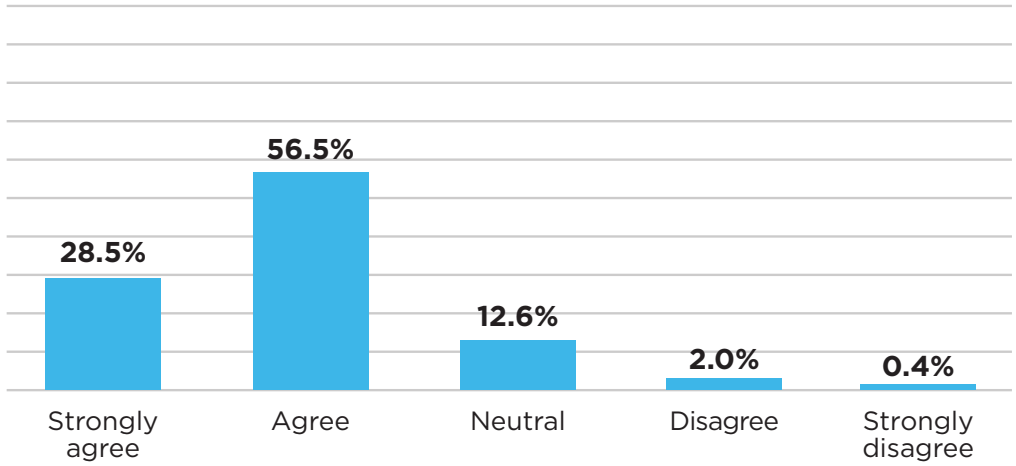
Respondents: all cohorts, n = 246. Selected all that apply.

When asked to what extent they felt their CHC could be involved with clinical trials (Figure 10), a majority (54.1%) indicated that the CHC should let its patients know about studies. This would work very well for CHCs that do not have the time and resources to be directly involved in trials.

CHCs are willing to participate directly as either a main or sub-site but, as previously discussed regarding barriers, they would need funds, guidance and training. CHCs are encouraged to start by addressing the basics, such as discussing study opportunities with patients and/or evaluating patients for participation. From there, they may progress to more direct participation as a main or sub-site.

"I would think that there would have to be some sort of physician champion, some sort of physician drive … this, and some interest from them to say, 'We believe this is beneficial to our patients because we believe this fits within the care that we give.'" — Executive leader

Figure 11. Please rate your agreement with the following statement: CHCs should provide the option for their patients to participate in clinical trials.

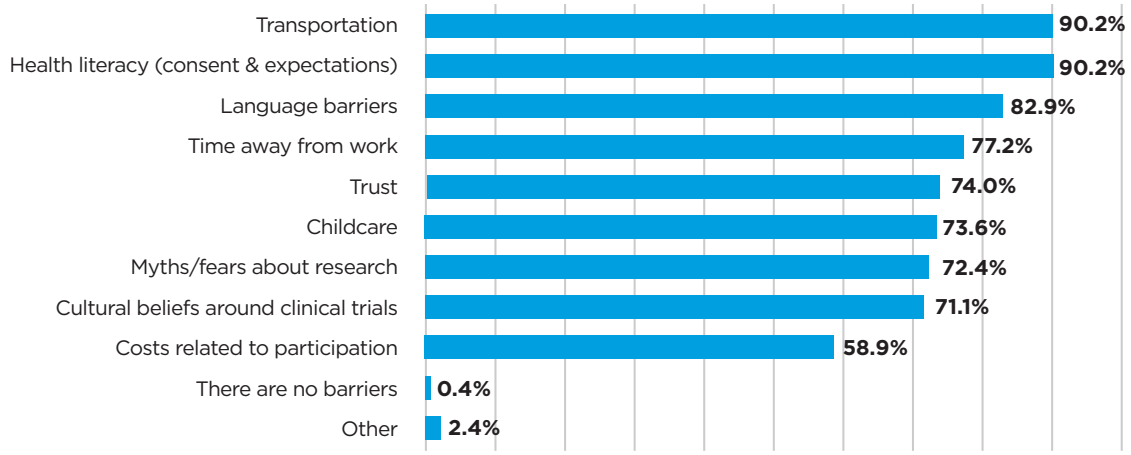


Respondents: all cohorts n = 246

Eighty-five percent of respondents either strongly agreed or agreed that CHCs should provide the option for patients to participate in clinical trials (Figure 11). Thirty-five respondents provided explanations for their agreement ratings, with selected comments including:

> ***"It is important to include CHC population in research so that data gathered can represent the patients we serve."***
> ***— Medical provider***

Figure 12. What barriers might your patients encounter when considering participation in a clinical trial?



Respondents: all cohorts n = 246. Selected all that apply.

In interviews about barriers to patient participation in clinical trials, most responses referred to people of color, while some applied to CHC patients in general. Barriers discussed included transportation, language barriers, continuity of care, and mistrust of medical research among some communities (Figure 12).

> ***"When you're asking folks to leave their home to participate in [clinical trials] … if it's not … their priority, if [they] are working two jobs and … if it's not going to fit within the [available] time that they have that week — They're just not going to go. It's why they don't come to their appointments sometimes. I feel like we just don't make it easy for them to participate." — Executive leader***

Several interviewees mentioned the infamous Tuskegee Syphilis Study[3] as an example of why African American and other communities might view clinical studies with suspicion. Interviewees also discussed the extraordinary barriers patients already face in accessing basic medical care, such as the difficulty of attending appointments due to inflexible work schedules. Figure 8 above indicates that healthcare professionals feel that safety precautions have improved for clinical trials. For this reason, it is important for CHCs to be directly or indirectly involved to foster trust within the communities they serve.

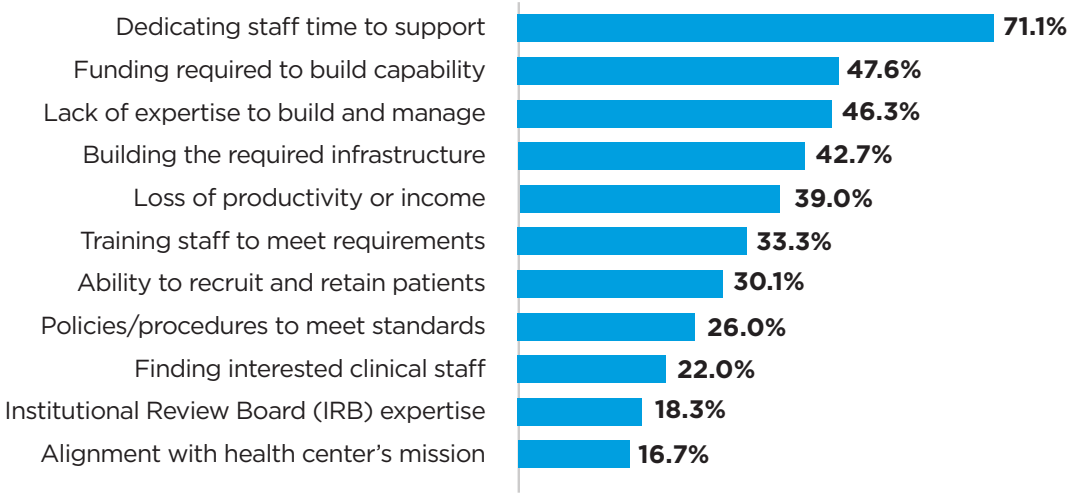
[3] As one journalist has written, the Tuskegee Syphilis Study is "perhaps the most enduring wound in American health science" (Newkirk, 2016).

Some topics mentioned during the interviews require additional clarification due to misconceptions. These include the ability to offer high patient payments or stipends (level of inducement must be considered and be governed by an Institutional Review Board or IRB), insurance coverage (not required unless standard of care is involved) and the necessity for CHCs to operate their own IRB (not required as central IRBs are available).

Patient costs related to clinical studies were mentioned as a concern; however, it should be noted that most, if not all, studies cover the expenses associated with visits and procedures for clinical trials. Additionally, to encourage clinical study participation, the Clinical Treatment Act contains provisions to cover specific costs related to clinical studies, particularly for standard-of-care components included in a protocol.

Figure 13.

What are the main barriers to CHCs in conducting clinical trials?



Respondents: all cohorts, n = 246. Selected all that apply.

CHCs face many barriers when considering direct participation in clinical trials (Figure 13). The most pressing barriers are associated with staff, expertise, and the funds required to build and operate a suitable research function.

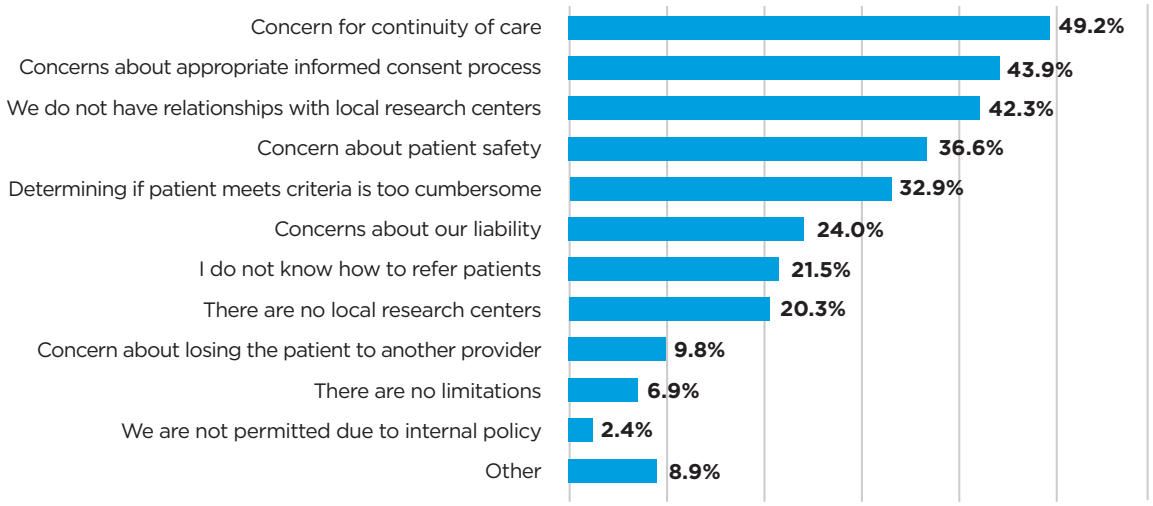
Interviewees elaborated on these concerns, citing a shortage of research experience/expertise and resources, a need for staff

"A community health center is based on reimbursement and quality metrics... Certain luxuries of increased time, increased funding aren't in the equation, and especially right now after the pandemic and with staffing shortages. Getting the manpower to assist with [clinical trials] is difficult."
— Medical provider

training, and a need for more staff. Some executive leaders expressed a desire for expert outside guidance to set up clinical trial programs. Several medical providers stressed that, given the chronic underfunding and understaffing of CHCs, there is a need for more financial and personnel resources. Some medical staff mentioned the need for assistance in educating patients about clinical trials.

> ***"What we probably want to do is find ... somebody who runs clinical trials and have them guide us through the process. What do you need, what do you have to have, what does the infrastructure look like? How do you scale the resources based on what? Based on number of participants? The time of the ... trial? How extensive or how limited it is? [We] would need, first of all, to start with somebody that would help guide and structure at least the beginnings of what would be a clinical trials department." — Executive leader***

Figure 14. Which of the following are limitations to sending patients to a research center for a clinical trial?



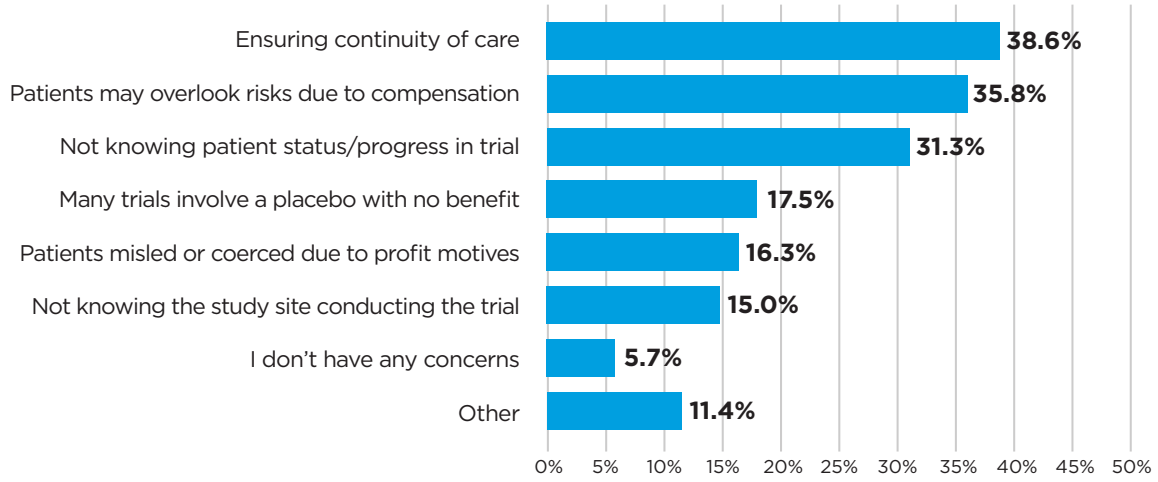
Respondents: all cohorts n = 246. Selected all that apply

When CHCs cannot directly conduct clinical trials, they must rely on external, local, or regional study sites. However, the majority of respondents noted either the lack of an established relationship with study sites or concerns about patient safety and continuity of care. This is important because CHCs are responsible for managing their patients' chronic and acute medical conditions, which could potentially interfere

with the conduct of the study (Figure 14). Receiving information about the patient's progress during the clinical trial supports continuity of care. For example, understanding which medications are prohibited during the study not only ensures patient safety but also promotes protocol compliance. Addressing these concerns will be paramount to encouraging clinical trial participation.

Concerns raised during the interviews included ensuring continuity of care post-trial, the difficulty of explaining clinical trials to CHC patients, and the barriers to low-income patients participating in clinical trials. Medical providers also noted the unequal power dynamic between themselves and patients, highlighting the need to consider this dynamic when designing study recruitment plans.

Figure 15. What would be your primary concerns with suggesting clinical trials for your patients?



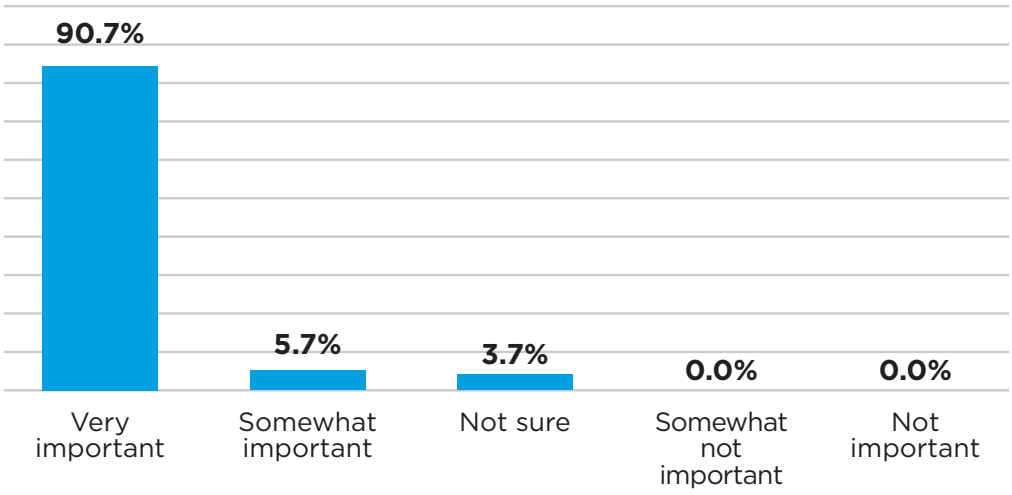
Respondents: all cohorts n = 246. Selected all that apply.

"As a provider, I owe it to my patients to ensure their safety. That should ALWAYS be the top priority." — Medical Provider

As shown in Figure 15, more than a third of all respondents (38.6%) expressed that their primary concern when recommending clinical trials to patients was ensuring the continuity of care. This concern influences their willingness to talk to patients about clinical trials and to refer patients to studies being conducted outside of the CHC.

Interviewees expressed some reservations about some aspects of clinical trials, such as the challenges associated with obtaining informed consent and ensuring appropriate compensation. It is important to note that regulations mandate that trained and professional clinical study sites obtain and document proper informed consent. IRBs govern the ethical conduct of research and the safety of study participants. Participant compensation, often referred to as stipends, is reviewed to ensure an appropriate payment level in order to minimize the potential for undue influence that may arise with higher payments.

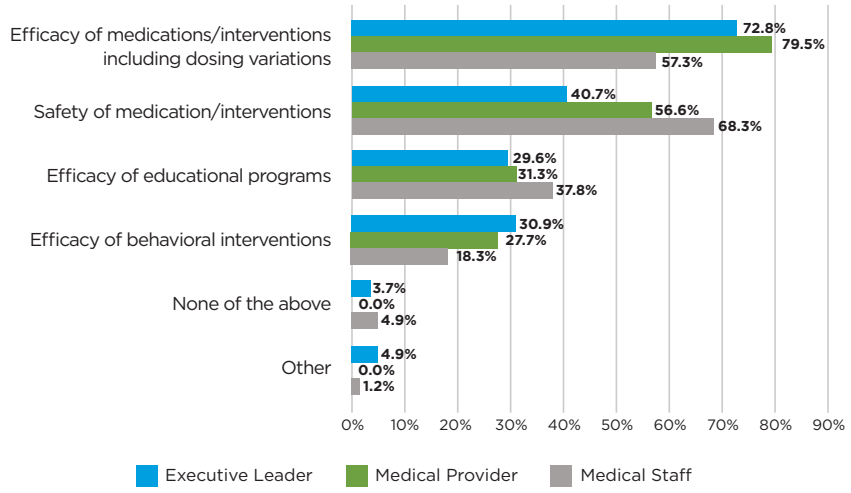
Figure 16. How Important is it to Involve People of Color in Clinical Trials?



Respondents: all cohorts, n = 246.

It was imperative to understand whether CHCs considered that involving REPs in clinical trials was important given the multitude of pressing issues within the healthcare system and with their primary focus on providing medical care with limited financial and human resources. The majority of respondents (90.7%) stated that involving people of color in clinical trials is very important (Figure 16).

Figure 17. Which areas of clinical study focus do you believe are most important for people of color to be involved in?

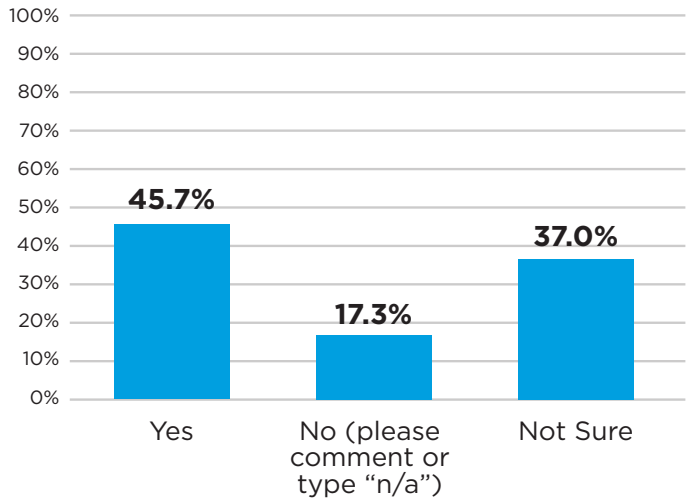


Respondents: all cohorts n = 246. Selected up to 2 options.

Respondents believed that more studies and data are needed related to how well interventions work and how safe they are in REPs (Figure 17). Providers felt more strongly about the data needed on efficacy, while medical staff were more focused on safety.

When asked whether involvement in clinical trials could be considered a part of their CHC's core mission and strategy, almost half (45.7%) of the CHC executive leadership cohort responded yes (Figure 18). This is encouraging, as currently a very small percentage of CHCs actively participate in clinical trials. This underlines the gap between the CHCs' objectives and their ability to provide clinical trials as an option for patients.

Figure 18. Would you consider direct or indirect involvement in clinical trials a part of your organization's mission or strategy?

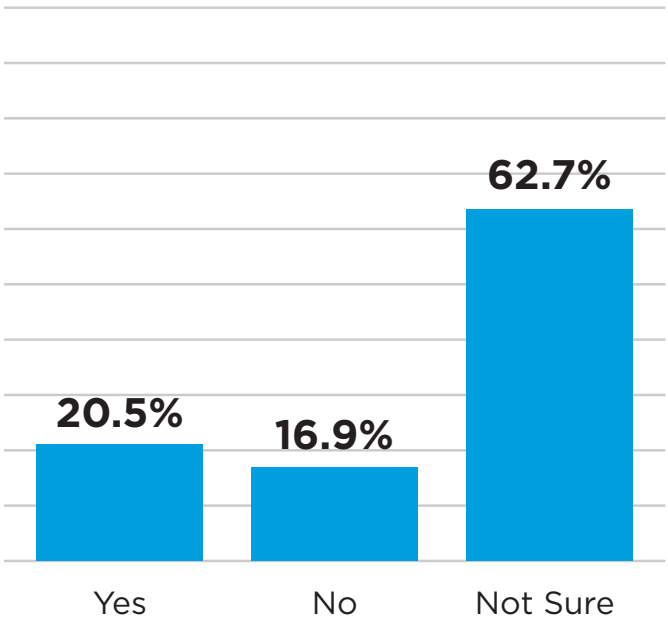


Respondents: executive leader cohort, *n* = 81.

"As far as community health centers [are concerned], if you want to get to a population of color, you have to be in their neighborhood. You have to be in their [backyard]. You have to make it easy for them to participate in these things because expecting them to travel, expecting them to travel consistently and compliantly is a challenge." — Executive leader

As illustrated in Figure 19 below, nearly two-thirds of providers (62.7%) were unsure whether they could trust external research parties to ensure continuity of care, and only 20.5% responded affirmatively to this question.

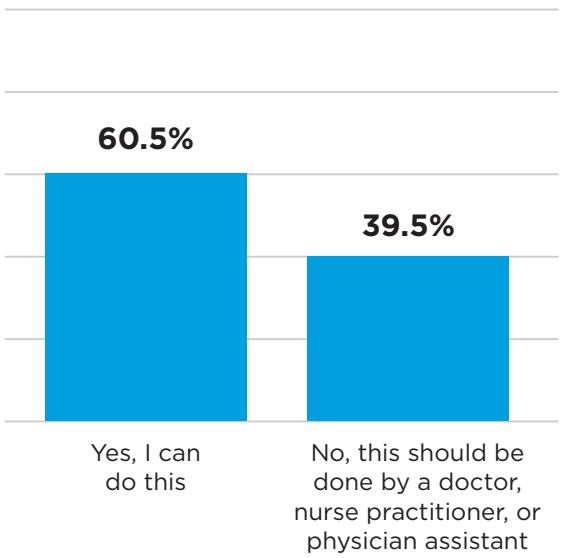
Figure 19. Can external research parties be trusted to ensure continuity of care for patients?



Respondents: medical provider cohort, *n* = 83.

In order for the majority of CHCs to either initiate or maintain a basic level of support for clinical studies—which would benefit patients and improve diversity—addressing concerns about continuity of care must be done locally and on a study-by-study basis. Providers are treating and prescribing medication for overall medical care and must be assured that gaps in care will not occur during or after a clinical study.

Figure 20. Do you feel in your role that you can share information about clinical trials with patients?

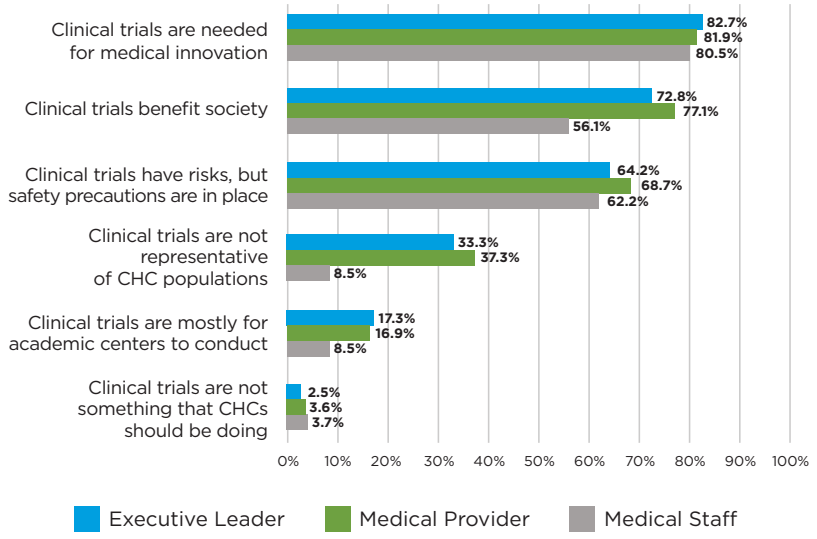


Respondents: medical staff cohort, *n* = 81.

As shown in Figure 20, the majority of medical staff (60.5%) believe that they can share clinical study information with patients. This is an important option considering that providers are often pressed for time, and most CHCs will not be direct contributors as either a main or sub-site. Medical staff may be sufficiently acquainted with the patient and have their trust, such that sharing appropriate study options can be part of the care process.

"Whether that's the doctor explaining [the drug] or the pharmacist, I think sometimes people need to hear it multiple times, maybe from different places, because sometimes the doctor's busy or the doctor's intimidating.... On a new drug, we can go over everything [with the patient] the first go-around, but maybe they'll only retain 40%, and then maybe they'll call us in the pharmacy a week later and be like, 'Hey, what am I supposed to do again?' or 'I'm experiencing this, is this from the drug or something else?' Then over time, they can build their competency." — Medical staff member

Figure 21. What are your general impressions of clinical trials?



Respondents: all cohorts n = 246. Selected all that apply.

One objective of this survey was to assess statistically significant differences in views between executive leaders, medical providers, and medical staff regarding the involvement of CHCs in clinical trials. These cohorts did not significantly vary in their responses as to how CHCs could be involved in clinical trials or in their primary concerns about suggesting clinical trials.

However, the groups did vary significantly in their general impressions of clinical trials. Specifically (Figure 21), executive leaders (33.3%) and medical providers (37.3%) were significantly more likely to state that clinical trials are not representative of their patient population, in contrast to medical staff (8.5%). Furthermore, medical providers (77.1%) were much more likely to state that clinical trials benefit society, compared with medical staff (56.1%).

> ***"I've had patients that were like, 'Oh, I've been in a community where we were experimented on before.' I think there's a really long history in the United States healthcare system of experimentation [on] underrepresented or marginalized groups. The Puerto Rican contraception study[4] is one to think about, or even the Tuskegee Syphilis Study. These are things that are in the minds of some of our patients and we have to work to rebuild [trust] before thinking about reaching out in community settings. — Executive leader***

[4] The first large-scale human trial of oral contraception was conducted in Puerto Rico before the drug was approved for safe use by U.S. authorities.

Limitations

While this grant, its findings, and the toolkit are transformative, further research is required, as potential limitations may exist:

- CHCs that chose to participate may be more forward-thinking than others that did not.
- CHCs were responsible for selecting the individual respondents from their teams: these respondents may have had a more positive view of clinical studies than others.
- Even after a detailed explanation, respondents could still be confused about the difference between clinical trials and observational studies.
- Respondents may have provided answers they believed to be socially acceptable or aligned with expectations of their roles (e.g., within healthcare roles).
- This study focuses on people of color/racially and ethnically diverse populations. However, other populations are also underrepresented and could be included in future research (e.g., disabled, older adults, LGBTQ+ communities, those who are uninsured or low-income, etc.).

It is important to note that, while other underrepresented populations (e.g., disabilities, age, gender, income, location) were not the focus of this grant (see above limitations), the results and tools generated from this project have the potential to benefit many people in addition to REPs, given the diversity of populations served by CHCs.

Call to Action for CHCs and Related Stakeholders

The *Building Clinical Trial and Health Research Access for People of Color via Community Health Centers* project aimed to identify clinical study participation barriers, misconceptions, and knowledge gaps among CHC executive leaders, medical providers, and medical staff.

Overall, these health professionals articulated a clear-eyed view of the small- and large-scale challenges to clinical study diversity — the kinds of challenges that CHCs face every day in providing equitable, quality care to patients of all backgrounds.

CHCs are each called to take their own appropriate next step to promote the participation of REPs in clinical studies. The level of engagement is of secondary importance, as long as it aligns both with patient care needs and with the CHC's available resources (e.g., time, people, funds). Special consideration should be given to supporting any clinical study that directly aims to expand diversity and representation of REPs.

It should be noted that CHCs have autonomy in determining their level of support for clinical studies and can choose study types based on study objectives, interventions, and/or disease states of interest. Participation options range from indirect (basic), such as referring patients to a local research center, to direct (complex), such as operating a dedicated research site. In addition, CHCs can be involved in various clinical studies with a combination of indirect and direct roles (direct with basic observational studies and indirect with clinical trials).

Options for CHCs to Participate in Clinical Studies of All Types

Source: Altura

Below is a summary of options for CHCs to consider based on their current involvement with clinical studies. It is imperative that all levels of the organizations are aware and educated on their CHC's direction and resources related to clinical studies.

CHCs with limited resources and/or clinical study experience should consider:

- Connecting patients with online or virtual clinical studies.
- Connecting patients with local, vetted study sites conducting in-person studies.

CHCs that occasionally conduct basic observational studies should consider:

- More observational studies or additional non-investigational intervention studies.
- Connecting patients with online or virtual clinical studies.
- Connecting patients with local, vetted study sites conducting in-person studies.

CHCs that regularly conduct observational and non-investigational clinical studies should consider:

- Being a satellite site for a clinical trial or building infrastructure to conduct clinical trials as a primary site.
- Grants for investigator-initiated clinical studies.
- Connecting patients with online or virtual clinical studies.
- Connecting patients with local, vetted study sites conducting in-person studies.

CHCs that conduct clinical trials should consider:

- Adding Principal Investigators (PIs) and expanding therapeutic areas for clinical trials.
- Grants for investigator-initiated clinical studies.
- Connecting patients with online or virtual clinical studies.
- Connecting patients with local, vetted study sites conducting in-person studies.

Virtual or online clinical studies are defined as any study for which in-person visits are not required. These clinical studies are non-investigational in nature and provide an easy way for patients to participate in either observational clinical studies or interventional studies that are designed and approved to be conducted remotely (e.g. home, online). They also require less time and effort from CHCs. The Michael J. Fox Foundation's Parkinson's Progression Markers Initiative (PPMI) study is an example.

"I think the biggest barrier is resources, not just for the patients, but for the clinics themselves. We are often struggling to just get the basic operational things down, getting the patients processed, getting the charts completed and the billing completed. It works, but those basic things are often challenging.... I think having clinical trials now added on is a whole other, not even a department, but a whole other sector that would need to be investigated and figured out how that would be managed within the things that are mandated of the clinic itself."
— Executive leader

It is important to note that CHCs are not required to build or have an IRB. IRBs play a crucial role in providing initial approval and ongoing reviews of clinical studies to ensure regulatory compliance and to safeguard participant safety and privacy. Fortunately, there are viable IRB options for CHCs. Many research organizations have internal IRBs that review studies. Additionally, independent external IRBs are available to support research organizations and CHCs.

CHCs express concern about study safeguards for their diverse and often vulnerable patient populations. The Common Rule defines vulnerable people as "people who are vulnerable to coercion or undue influence." Specifically, it identifies categories such as "children, prisoners, individuals with impaired decision-making capacity, and economically or educationally disadvantaged persons." When such populations are involved, additional safeguards can be recommended by IRBs. Ultimately, safeguards would be implemented by the research organizations conducting the study, so it is important that CHCs choose their partners carefully.

Generally speaking, CHCs with residency programs are likely to be good candidates for direct involvement in all types of studies. Residency training requirements, such as with Family Medicine, require scholarly activity among faculty and residents, and clinical study participation can help achieve this requirement. Grant options exist for CHCs that can write proposals or partner with organizations that support writing and implementation. Grants can help with education, training, research structure development, patient outreach, or clinical study development and implementation.

CHCs that are considering participating in clinical studies feel that continuity of care and ensuring the proper situation for the patients are imperative. CHCs have total autonomy in the process, as they can choose which studies to participate in, how to participate, and who to partner with.

Given the options and the ability to support patients in their healthcare journeys, CHCs clearly have a path toward supporting the participation of REPs in clinical studies of all types.

A separate survey in September 2023 asked 2,704 Neighborhood Healthcare patients what they considered important in learning about a clinical study, and if they would consider a study at a location other than their CHC (Figures 22 & 23).

This project's advisory panel included a patient representative who is a Neighborhood Healthcare member, a phase III clinical trial participant, and an African American. He says,

> ***"It made a difference knowing that I had a link to the study center since it was being done at Neighborhood Healthcare. When considering the clinical trial, that made the study 'more legitimate.'"***

Figure 22. Which of the following is important to you when considering joining a clinical study?

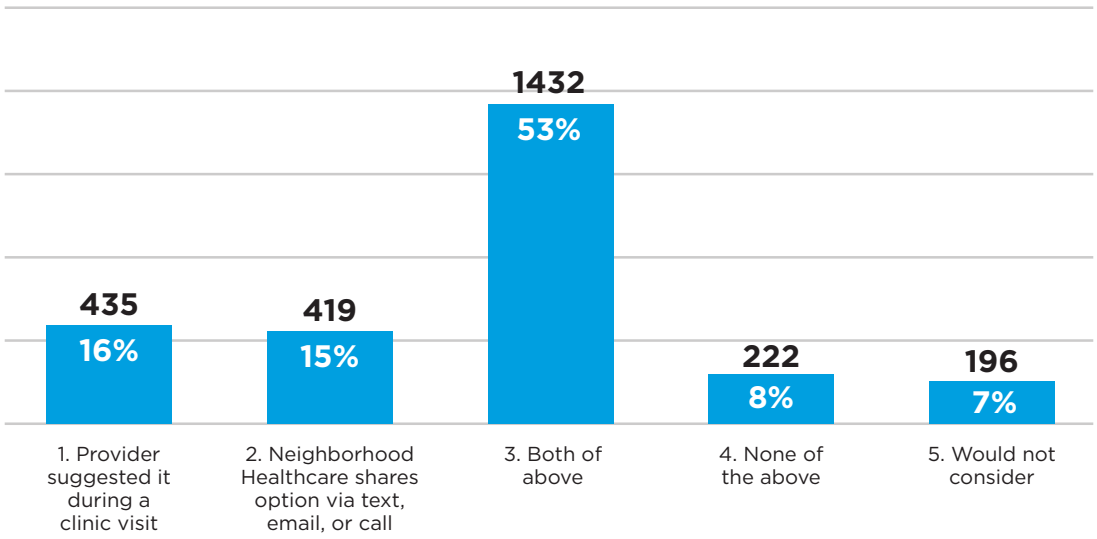
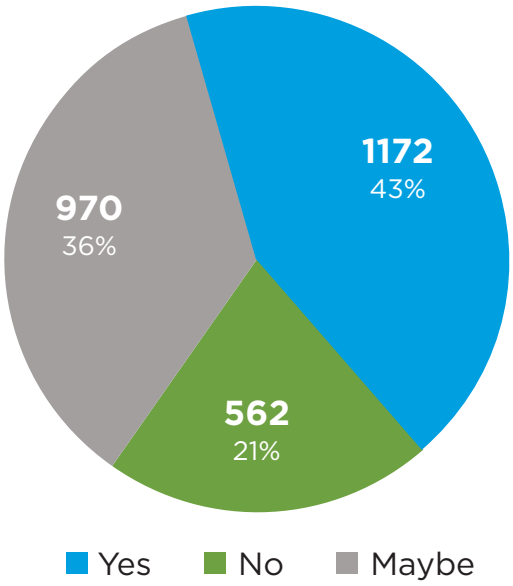


Figure 23. If your provider or Neighborhood Healthcare suggested a clinical study at another location, would you participate?



Trust is important for any decision related to healthcare, and even more so when a patient considers clinical study participation. Based on the results of this project, Neighborhood Healthcare's patient survey results, and the advisory panel's experience supporting REPs with their healthcare and/or clinical study participation, it is very important for patients to have studies vetted and recommended by their CHC. It is even better if a CHC is directly involved with a clinical study.

This project's related toolkit will provide participation use cases for the various clinical study types: patient triage to study sites for clinical trials, observational studies, interventional studies (behavioral interventions, control group studies for education and technology), and clinical trials. The toolkit will be available in January 2024 and can be requested at info@alturastudies.com.

Call to Action for Life Science and Research Organizations

The clinical research industry is vast and complex with various segments that can overlap when the research required involves the participation of people ("human subjects" in regulatory terms). This call to action will focus on two stakeholders that drive study enrollment and execution: sponsors and study sites.

For the purpose of this section, the term "sponsors" includes any organization that develops and funds clinical studies of investigational or approved interventions, such as medications, biologics, medical devices, and medical software. These would include biotech, pharmaceutical, medical device, and medical software companies, as well as government agencies, health-related foundations and independent researchers. At times, these organizations include relevant service providers, such as contract research organizations (CROs) that are tasked with providing some or all of the required clinical study operations.

For the purpose of this section, the term "study sites" refers to academic centers, dedicated research centers, research centers within health systems and medical practices, site management organizations (SMOs), and other entities that implement and enroll patients for sponsors, regardless of funding source and type of study.

Community Health Centers (CHCs), also called Federally Qualified Health Centers (FQHCs), as well as FQHC Look-Alikes, are community-based and patient-directed primary care centers. By mission and design, CHCs exist to serve those who have limited access to healthcare via 1,500 health centers and 15,000 locations nationally in any type of setting (e.g., rural, urban). CHCs care for over 32 million patients, of which over 60% are REPs.

Too often in clinical trials, the need for collaboration arises only after a trial starts and REPs enrollment is lower than expected or behind projections. The ensuing outreach by study sites and patient recruitment vendors is often viewed as insincere and short-term focused, without the patients' best interest in mind. Unfortunately, this approach has led to mistrust and misconceptions about clinical trials and other types of studies.

It is important to note that many CHCs will not have the time, interest, and/or resources to conduct any type of clinical study, or they may be able to support a basic observational study and nothing more complex. In these cases, CHCs can be a source of patients; however, this likely will only work with a long-term view and if patient continuity-of-care issues are resolved. Continuity of care was consistently mentioned as a barrier to referring patients to clinical trials.

These types of issues revolve around:

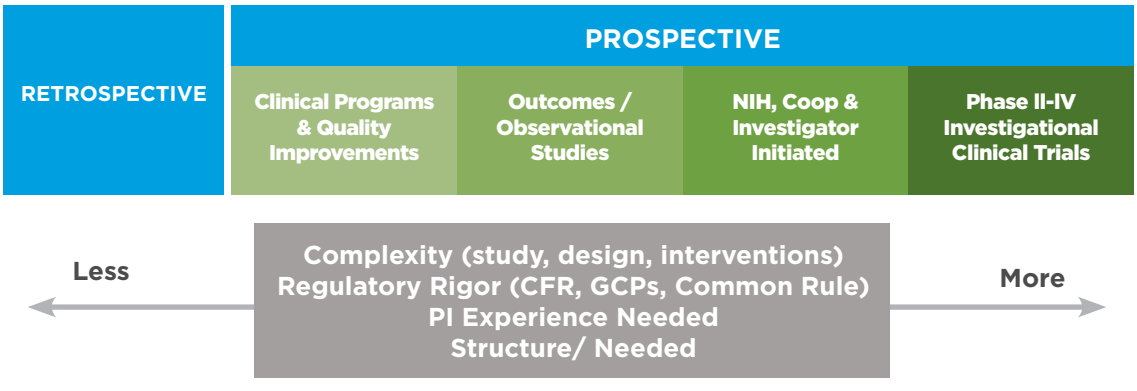
- transparency of patient status during the entire study process (e.g. screen fail, enrolled, dropped, completed)
- medications discontinued or added
- awareness of abnormal labs and exams
- study completion to coordinate any transition back to standard of care (e.g. Rx).

It is important to note that CHCs and their medical providers maintain healthcare responsibility for patients' chronic and acute medical conditions before, during, and after a clinical study. Awareness of the role of the CHC and the importance of ensuring continuity of care is paramount to engaging CHCs in the clinical trial process. This was reinforced throughout the survey as one of the primary limitations impacting the medical providers' willingness to discuss clinical trial opportunities with their patients or refer them to clinical trials being conducted outside of the CHC.

The following are options for sponsors and study sites to engage CHCs in order to increase REP study participation.

- Conduct retrospective review of healthcare data related to interventions or medical conditions of mutual interest (e.g. EHR, data warehouse, lab, claims, Rx data).
- Conduct observational and health outcome studies.
- Serve as a source of patients for clinical trials (triage to existing study sites).
- Participate as a satellite site for clinical trials (delegated roles to main study site).
- Participate as a main site for clinical trials.

CHC Clinical Study Spectrum



Source: Altura

For any clinical study collaboration with CHCs, a long-term perspective is advised, for which the roles and interests of the parties are aligned. Sponsors often lack understanding of the CHC environment and mission, and their approach may be short-term and acute in nature.

Clinical trial sponsors should also consider incorporating CHCs as satellite sites to their main study sites, allowing CHC medical providers to acquire experience as investigators. Additionally, sponsors should consider providing study sites with a budget to engage CHCs as a source of patients. These funds could be utilized by CHCs to conduct specific database queries, patient identification, evaluations, and triage to support study enrollment.

CHCs not only have access to their patient population, but they are also uniquely positioned for community outreach and engagement, given their profile of active involvement in their communities and support for healthcare screenings.

For late-stage and less complex clinical trials, sponsors may consider adding CHCs as sites if they have the appropriate clinical trial infrastructure and training, even without a prior history of clinical trial participation. Sponsors should also consider protocol design when possible, especially for phase IV or sub-studies in phase III clinical trials. Consideration should be given to relaxing inclusion criteria to reflect real-world conditions, reducing the number of study visits to lessen the burden, offering virtual or home visits for better participant retention, and allocating an appropriate budget for CHCs to ensure successful study execution and enrollment.

> ***"Even the funding to have the additional support staff [for] educating your patients on the trials [would be needed]. Obviously, [patients are] going to have questions. That would definitely be something that I always think of is [that] I would want someone to be a specialist... Or [have] access to someone that we could direct questions to, or be a constant support for us... A source of information or contact if we had questions." — Medical staff member***

Below is a checklist of questions for sponsors and study sites when considering collaborating with CHCs for clinical studies:

QUESTIONS FOR CHC COLLABORATION	IMPORTANCE / CONSIDERATIONS
What type of clinical studies has the CHC supported or conducted in the past? Does your clinical study align with this history/ experience?	Recognizing that few CHCs will have in-depth clinical study experience, what investments are you willing to make to ensure the CHC is adequately trained and prepared to support specific aspects of the study(ies)?
Can you take a long-term view on a collaboration that will involve many types of clinical studies?	Recognize that CHCs are not available on-demand to simply refer patients without funding, infrastructure, and resource support, and without trusted relationships with experienced researchers. To what extent is your organization willing to support and make such investments?
Are you able to provide long-term resources as well as short-term, study-specific support to fill CHC gaps?	See above
Does the clinical study include a budget to cover CHC-related costs for database access, prescreening, training, patient identification and triage (e.g., referrals), and patient monitoring?	Regardless of the role the CHC will play (patient identification, satellite, or main site); ensure that there are sufficient funds to compensate the CHC for their time and resources to support the trial.
Is a process in place to notify the CHC when patients are enrolled, active, or completing a clinical study to ensure continuity of care?	This addresses the continuity of care and safety concerns of CHCs and their providers. Transparency is key for the long-term.
Is a process in place to notify the CHC provider of any adverse events, lab anomalies, or patient safety concerns to ensure continuity of care?	See above
Is a plan in place to share clinical study results so that CHCs can learn and/or apply relevant findings to their healthcare practices?	In an evolving value-based healthcare environment, CHCs will view clinical studies as a way to improve care for patients.

> ***"Let's say if you're [a physician] in a trial, you're giving medication… to a patient, but that's all you're really doing. You're [just] recording the results… You are kind of like at the tail end [or] almost like at the frontlines of the clinical trial, but you're not necessarily involved… in the analysis… You're just that conduit to hand out medications and/or placebos [or] whatnot… You don't own a lot of the stuff that happens with the data, with the results, with any of that stuff. I guess the question would be, if we're expected to run a clinical trial, are we involved in all of it or are we simply just that end user, end-result conduit…?"***
> ***— Executive leader***

The traditional approach to selecting sites and recruiting patients falls short in establishing trust with healthcare systems and providers, particularly CHCs. Sponsors have a vast, yet untapped opportunity to expand diversity in clinical studies and engage the over 32 million patients within CHCs. This can be achieved by thinking outside of the box and building long-lasting CHC engagement, either directly or through the study sites that conduct their clinical trials.

To support CHC involvement in clinical studies, sponsors and study sites are welcome to distribute this white paper and related toolkit as needed. The toolkit will be available in January 2024 and can be requested at info@alturastudies.com.

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