STEP UP: Strategies for Trialists to promote Equal Participation in clinical trials for Under-served Populations

A collaborative project between clinical trial units, researchers, and patient and public input, to identify key areas for **improving inclusion in clinical trials.**

STEPUP

Executive summary

Introduction

Clinical trials must be designed with inclusivity in mind from the outset. Otherwise, trials will continue to test and approve new innovations that work for only some in society, widening disparities in health. While frameworks have been created to help trialists identify where their trial design may exclude populations under-served by clinical research, there is little guidance that outlines **how to create accessible clinical trials** for these populations.

Methods

STEP UP stems from research involving researchers working with under-served populations, trialists, clinicians, patients, and the public to identify new recommendations that may **help to increase inclusivity of clinical trials for under-served groups.**

The research had six stages:

- A scoping review identified initial activities that could improve recruitment of under-served populations in clinical trials.
- Discussions between public and patient involvement (PPI) colleagues, trialists, clinicians, and researchers further examined and identified ways of improving inclusivity.
- Redesign meetings facilitated discussions around how these activities may be implemented in clinical trials.
- Interviews with stakeholders explored the practical issues when implementing these activities.
- Key recommendations were reviewed by a diverse PPI panel for their accuracy and perceived importance.
- Final findings were translated into recommendations, which were then categorised into the following themes: recruitment and setting, stakeholder engagement, communication, flexibility, researcher training and hiring strategies, and data collection.

Conclusions

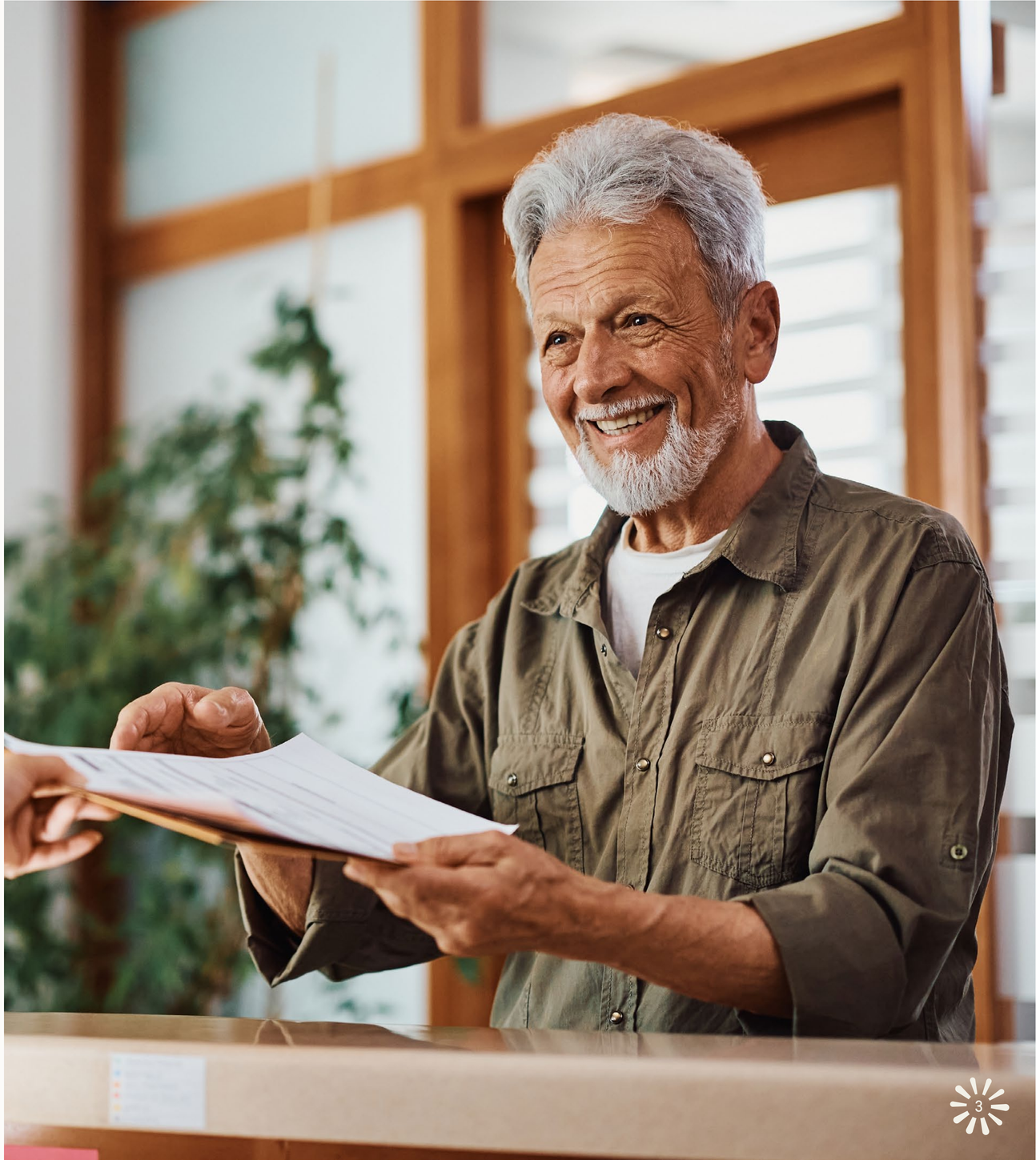
The guidance was configured as a set of recommendations to be used by clinical trialists. A summary of the key recommendations is provided on the STEP UP website.

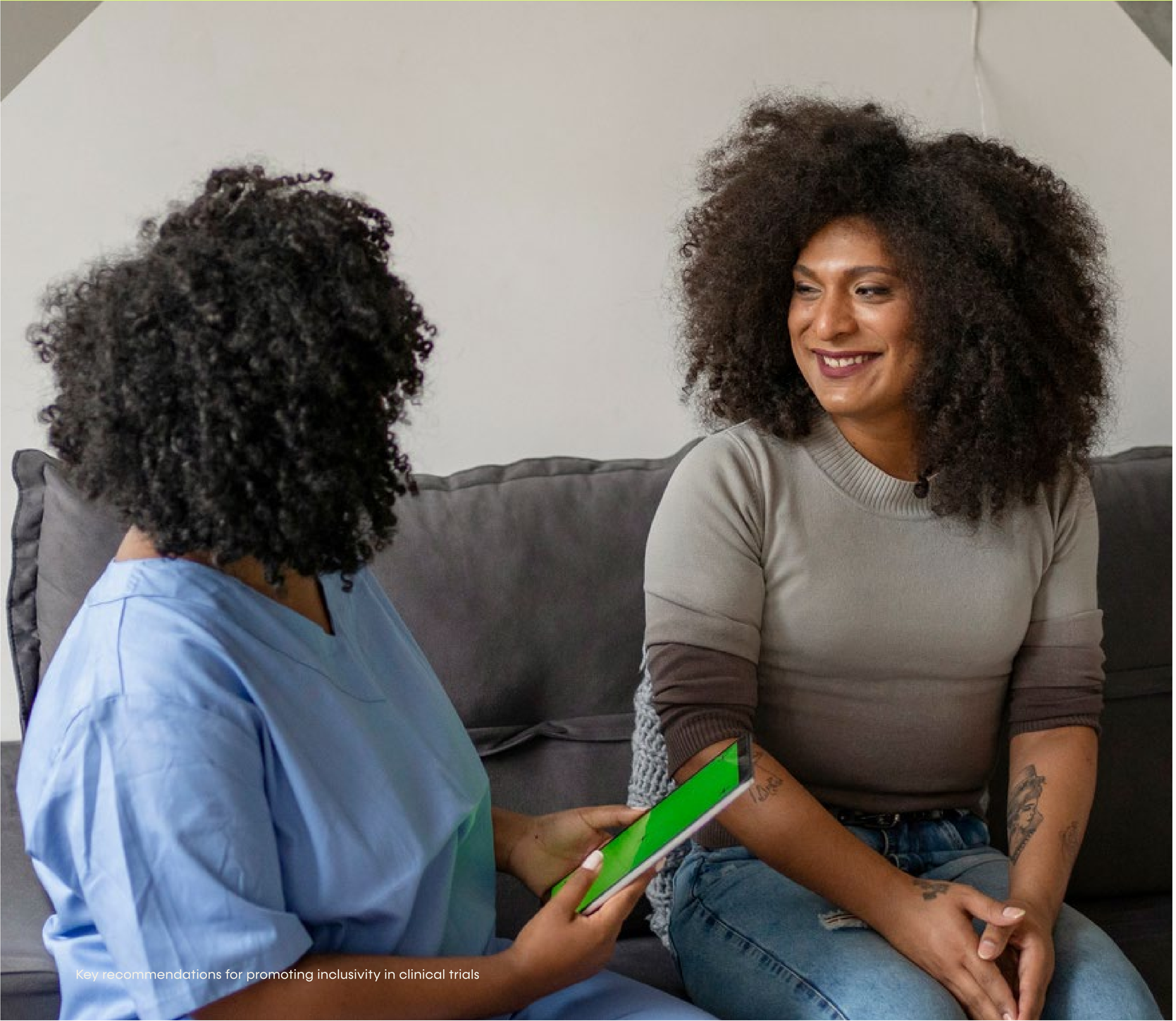
Introduction

Clinical trials have a long-standing history of not including many of those who stand to benefit most from improved treatments, including minoritised ethnic populations who have experienced systemic racism, women, gender minorities, neurodivergent people, older people, and people with disabilities. To achieve a world where everyone benefits from the innovations and health benefits that arise from clinical trials, **trialists need to make changes to the way trials are designed.**

Many trial designs exclude under-served populations unknowingly and unnecessarily. To rectify this, the INCLUDE ethnicity framework,[1] the impaired capacity to consent framework,[2] and the socioeconomic disadvantage framework[3] were developed to help trialists understand how clinical trial design may be inclusive for some populations, and yet exclude others. These frameworks enable trialists to consider possible barriers to participation for under-served populations and identify ways to remove them. While many frameworks have been developed to help trialists identify where their research may exclude under-served populations, there is no equivalent guidance on how to design and deploy trials in an inclusive manner.

STEP UP was developed to **bridge the gap** between identifying ways in which research excludes under-served populations and understanding how to design and deploy clinical trials that are inclusion-ready. Trialists may use this guidance to identify ways in which they can improve the design of their clinical trials to **ensure their patient population reflects the wider patient population.**





Methods

Step one: Identifying key methods of improving recruitment for under-served groups

The scoping review analysed the content of peer-reviewed papers that reported on the evaluation of key activities needed to improve recruitment of under-served populations in clinical trials.[4] For the purpose of this review, we focused on the following under-served populations:

- People from disadvantaged socioeconomic backgrounds
- People from minoritised ethnic backgrounds under-served by clinical research
- People with impaired capacity to consent
- Older populations

Seven suitable papers were identified for analysis. **Table 1** reflects the content of each paper in respect of the above demographics.

Methods – Table 1

	Disadvantaged socioeconomic backgrounds	Minoritised ethnic backgrounds under-served by clinical research	Those who are less able to consent	Older populations	Main finding
Jennings, 2015[5]	✓			✓	A £100 incentive payment offer led to small but significant improvements in patient response, but did not attract older or more people from disadvantaged socioeconomic backgrounds.
Agnew, 2013[6]				✓	Found a high recruitment rate of older populations from running educational workshops as recruitment events in local community organisations.
Forster, 2010[7]				✓	They found multiple recruitment methods successfully recruited older people to a randomised controlled trial, the most successful method was letters sent via GPs.
Withall, 2020[8]				✓	Written invitations from GPs were the most efficient method for recruiting older adults at risk of mobility-related disability to a trial.
Douglas, 2011[9]		✓			Found community engagement and personalised approaches successful in recruiting South Asian ethnic minority populations in a trial setting.
Kolovou, 2020[10]	✓				Reported high recruitment and retention using strategies specifically tailored to engage the venues and residents of highly deprived areas.
Jayes, 2014[11]			✓		Found that the consent support tool usefully supported trialists to determine whether a person with aphasia is likely to be able to provide informed consent and which information format will maximise their understanding.

Methods

Step two: Gaining expert insight into further activities to improve recruitment of under-served groups

Five online group discussions were held to identify activities in addition to those listed in **Table 1** to improve recruitment of under-served populations. Each group discussion lasted two hours, and comprised 4–8 attendees. Attendees were trialists, clinicians, and researchers working with under-served groups, and public and patient involvement (PPI) contributors.

Step three: Generating initial recommendations based on feasibility assessments and discussions

In three redesign meetings, trialists, clinicians, researchers working with under-served groups, and PPI contributors took one example completed trial per meeting and explored the practicalities of implementing the activities identified in steps one and two. The example trials included a drug trial in Type 2 diabetes, an occupational therapy trial for stroke in care homes, and an online therapy trial for depression via GPs. In each redesign meeting, an INCLUDE framework was selected for each example trial, and suggested redesign features based on the activities that were deemed feasible. These redesign features were then translated into key recommendations.

Step four: Identifying potential barriers and facilitators to implementing initial recommendations

Fifteen interviews were conducted with clinical trial unit (CTU) staff (such as trial managers, team leaders, and costing staff), clinicians, NHS research staff, researchers working with under-served groups, and community experts, to understand more about the facilitators and barriers to implementing the key recommendations outlined in stage three.

Step five: Evaluating initial recommendations and considerations

A diverse PPI panel was asked to evaluate the key recommendations and their associated facilitators and barriers to implementation as outlined in step four. The PPI panel concluded that the recommendations and implementation considerations were logical and thorough, and no further suggestions were made.

Step six: Consolidating and refining recommendations and considerations

The key recommendations and their associated implementation considerations were composed in a guidance document with six sections:


Recruitment and setting

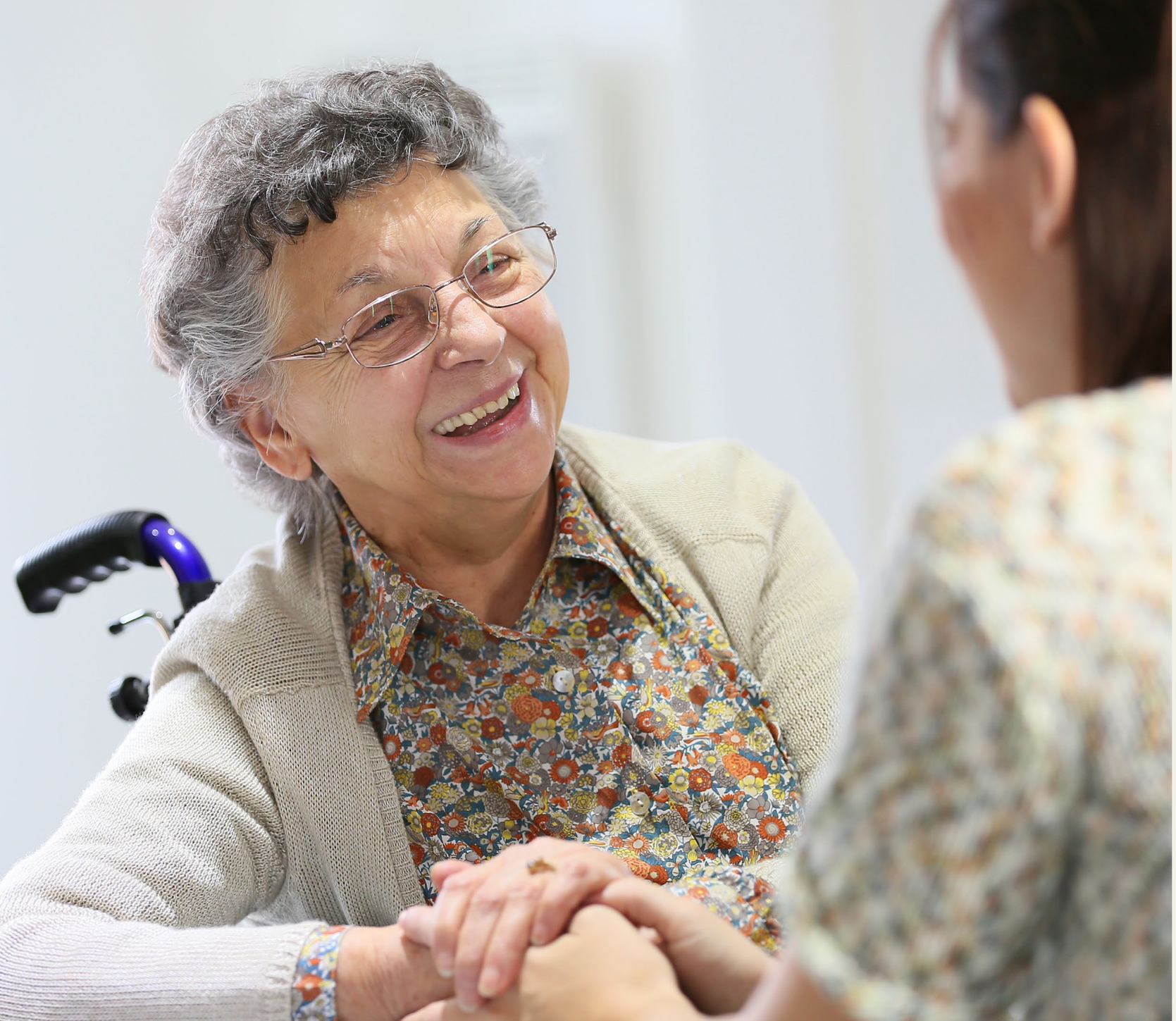

Stakeholder engagement


Communication


Flexibility


Researcher training and hiring strategies


Data collection



Recommendation one

Recruitment and setting

Recruitment and setting

1.1 Trialists should work with clinicians to identify who should take part in trials

For a trial to be inclusive, clinical trial participants must mirror the patient population the investigational intervention is aiming to treat. Some under-served groups are disproportionately impacted by conditions, and trialists should work with clinicians to understand the demographics of the patient population. The STRIDE recommendations explain how to decide which ethnic groups should be included in a trial — for most studies, trialists should include ethnic groups in the same proportion as the population with the condition, or if this is not known, in the same proportion as in the most recent census.[12]

Considerations for implementation

Trialists may wish to ask sites about the typical demographics of their patient or participant populations in expression of interest forms. Additionally, trialists may use routine data to look at disease burden in identified under-served groups.

One example of a trial team working to understand who their trial stands to benefit most are the SCC-After trial team, based at the University of Cardiff. SCC-After is for patients with high-risk primary cutaneous squamous cell carcinoma (cSCC), and is designed with two layers of inclusivity in mind:

- **Representation:** With consideration of who is affected by high-risk cSCC, including ethnicity and language spoken, or language support frequently sought.
- **Inclusion:** With consideration of individuals historically under-represented in trial participation, including older people with frailty, people living with multiple long-term conditions including those that are immunocompromised, and people experiencing socioeconomic disadvantage.

To that aim, the team have embedded the Quintet Recruitment Intervention (QRI)[13] and the INCLUSION SWAP[14] to help identify barriers to and optimise involvement of under-served groups, through exploratory interviews and analysis of recruitment processes. It's important to remember that challenges around representation aren't limited to trial recruitment. Access to healthcare, and consequently clinical trials, is a systemic problem. STEP UP contributors highlighted that funding is often tied to current relevant objectives within the NHS, and therefore does not include people who aren't accessing healthcare.

1.2 Conduct equality impact assessments during trial design and development

Equality Impact Assessments (EqIAs) can be used in the early stages of development to identify key under-served groups when designing clinical trials.[15] The INCLUDE frameworks can help trialists think about potential barriers for under-served groups.[1-3] Trialists should commit to considering equity, diversity, and inclusion (EDI) for the trials they design. This should be done prior to the funding application to identify the resources needed so that the necessary costs can be included.

Considerations for implementation

Trialists and clinicians often have limited resources for developing research ideas and grant applications, and it takes time to undertake these assessments properly — it needs staff time, PPI, and therefore more financial resources too. STEP UP contributors discussed the possible impact of additional paperwork being overlooked due to workload, limited resourcing, and no dedicated staff member to focus on these elements of trial design. Trialists that have time and resource limitations for grant development should undertake a superficial assessment to inform the funding application and plan to undertake the assessments properly during the project's funded set-up time. Feasibility work to inform future trial design should use EDI assessments or frameworks available to them.

1.3 Always consider people experiencing socioeconomic disadvantage

There was a strong feeling from the discussions that low socioeconomic status was linked to other under-served groups. It was thought that people experiencing socioeconomic disadvantage may disproportionally have medical conditions due to their circumstances, and that socioeconomic disadvantage in the UK can drive inequalities more than other factors. Some contributors noted that social class is a more important factor for inequality in the UK than ethnicity is, but that it is not a protected characteristic in UK Law. People experiencing socioeconomic disadvantage do not want to be identified or singled out as this risks stigmatisation. This means that trialists should always explicitly design their trials so that people experiencing socioeconomic disadvantage are able to take part, such as removing costs associated with taking part, supporting those with limited access to healthcare, and considering literacy levels.

Considerations for implementation

People experiencing socioeconomic disadvantage are not identifiable in the same way that some other under-served groups might be, and so it is best to design your trial so that it's accessible for people from all socioeconomic backgrounds. Prolonged socioeconomic disadvantage is linked to low health literacy,[16] and a lack of knowledge on clinical trials. Socioeconomic status is transient and with the current cost of living crisis in the UK, and misinformation around healthcare and research being spread on social media, it is becoming increasingly important to make it easier for people experiencing socioeconomic disadvantage to be included in trials. Making trials simpler and more accessible for those experiencing socioeconomic disadvantage will have an impact on other under-served groups as well. For example, using simplified language will help materials cater to both those with lower literacy levels and those with disabilities.

1.4 Expand site selection to include sites in under-served areas of the UK

Often, research-ready sites are selected to reduce time spent setting up sites, training staff, and monitoring. However, research-ready sites are often located in more well-resourced areas of the UK. The National Institute for Health and Care Research (NIHR) has identified regions around the UK that are under-served, such as coastal and rural areas.[17] To enable diverse participation in clinical trials, trialists should consider working

Recruitment and setting

with sites that enable access to groups of patients and participants that are under-served by health research, even if they are not 'research-ready'.

Considerations for implementation

Selecting sites that are not research-ready, but are located in under-served areas of the UK, will require more resources to set up, which should be incorporated into the set-up time. Larger hospitals are more likely to have dedicated research staff, whereas sites located in under-served areas may require staff recruitment or training before they are ready to run clinical trials.

1.5 Observing baseline data to strategically inform site selection

Building on recommendation 1.1, trialists should monitor the participant population throughout the clinical trial to ensure that it reflects the patient population identified at the start of the development process. If recruitment begins to look unrepresentative, trialists should open sites in areas where there are large communities of those who are under-represented.

To ensure sub-studies can be used to identify barriers or outcomes specific to under-served populations, individuals must be carefully recruited to ensure these studies are inclusive of under-served populations.

Considerations for implementation

Monitoring of the participant population can be carried out in the Trial Management Group (TMG) and other oversight meetings, but the reliability of decision-making lies in how complete the demographic data is. Even if the data is complete enough to make judgements on representation, opening new sites is resource-intensive and may not be possible if not pre-planned. To help mitigate this, costs should be calculated per patient as this can help move money between sites during a trial.

Smaller sample sizes can make it a challenge to accurately represent under-served populations in sub-studies. Trialists should identify which under-served populations would make up a purposeful study sample, and recruit as close to this as possible.

1.6 Assessing inclusion criteria

Inclusion criteria can explicitly prevent some under-served populations from engaging in clinical trials, e.g., the expectation to be able to speak English, exclusions for people with serious mental illness, diagnoses that are not routinely recorded (learning disabilities), or using specific screening measures that might differ between communities (for example, pulse oximetry[18]). There are additional groups who may be excluded due to additional legal requirements, such as prisoners and those with impaired capacity to consent, who should also be considered by trialists.

Considerations for implementation

Exclusion criteria may be in place to protect participants' safety and to prevent overlap of symptoms affecting the trial outcomes, however trialists must carefully consider how inclusion criteria can impact the accessibility of trials for under-served populations and make adjustments where possible. Trialists should consider how implicit eligibility criteria may impact the inclusivity of their trials, such as where people can be recruited from, complex information written in English, or the use of digital methods.

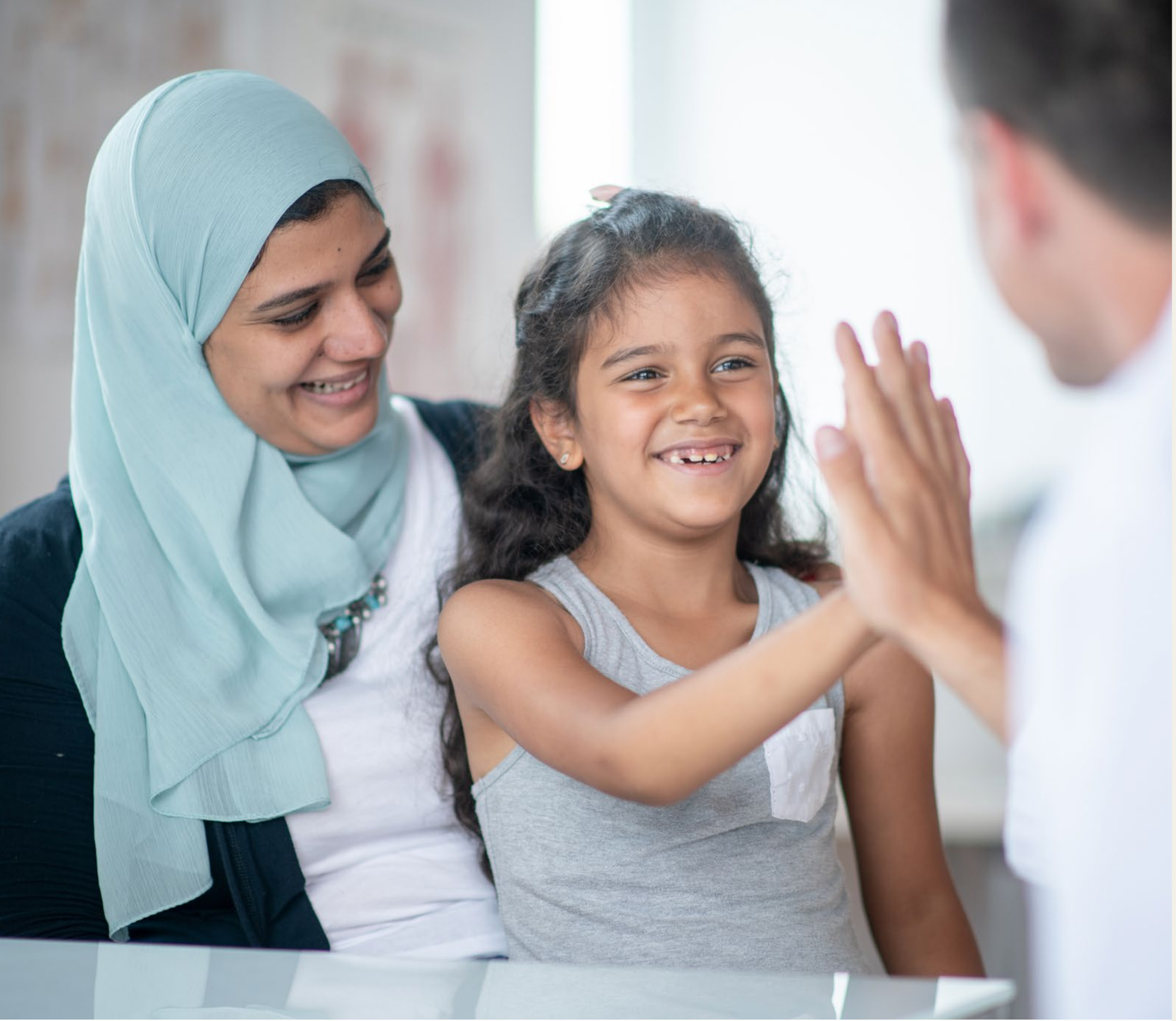
Trialists should make use of resources designed to help them to include those with impaired capacity to consent, such as the recommendations outlined on the CONSULT website.[19]

1.7 Considering alternative recruitment pathways

General practitioners (GPs) are often considered to interact with and reach a wide range of potential participants, and there is evidence from the scoping review that letters from GPs were effective in recruiting older populations. However, the inverse care law shows that under-served areas typically have fewer GPs and are underfunded compared to the rest of the UK.[20] Wherever possible, alternative recruitment pathways should be considered, including recruitment through community venues. Such venues could include libraries, places of worship, schools, supermarkets, local shops, market stalls, festivals, sports centres, and clubs. While there are typically fewer GPs in under-served areas of the UK, the opposite is true for pharmacies — as access to pharmacies is greater in areas of highest deprivation.[21] This suggests pharmacies could be considered a suitable alternative recruitment pathway. One STEP UP contributor mentioned the use of mobile clinics that could be used for recruitment within communities.

Considerations for implementation

It takes time to develop working and trusting relationships between trialists and community venues. Setting up sites is an intense activity for trialists, and even more so for sites that are less familiar with local community venues. It's important that these activities are sufficiently resourced — building community connections from scratch requires additional resources.



Recommendation two

Stakeholder engagement

Stakeholder engagement

2.1 Diversify patient and public involvement in trial design stages

Working with PPI colleagues with lived experience of the condition is common in research projects, and is expected by the NIHR in the UK, but to understand how trials fit into the lives of under-served groups, PPI must also include people from under-served communities relevant to the clinical trial. 'Inclusive opportunities' is one of the six UK standards for Public Involvement.[22]

Considerations for implementation

It is important to keep in mind that even if people identify with an under-served group, people within these groups are not homogenous and they may have intersectionality with other under-served groups. Where possible, trialists should consult with a wider group of patients with as many diverse demographics as possible, using local community groups or external vendors, such as COUCH Health,[23] Egality Health,[24] and Health Watch,[25] to identify diverse participants if necessary.

PPI members advocated for trialists to undertake PPI training. One of their main messages was to ensure trialists listen to PPI contributors. There are additional resources for PPI on the NIHR website[26] and a handbook for researchers.[27]

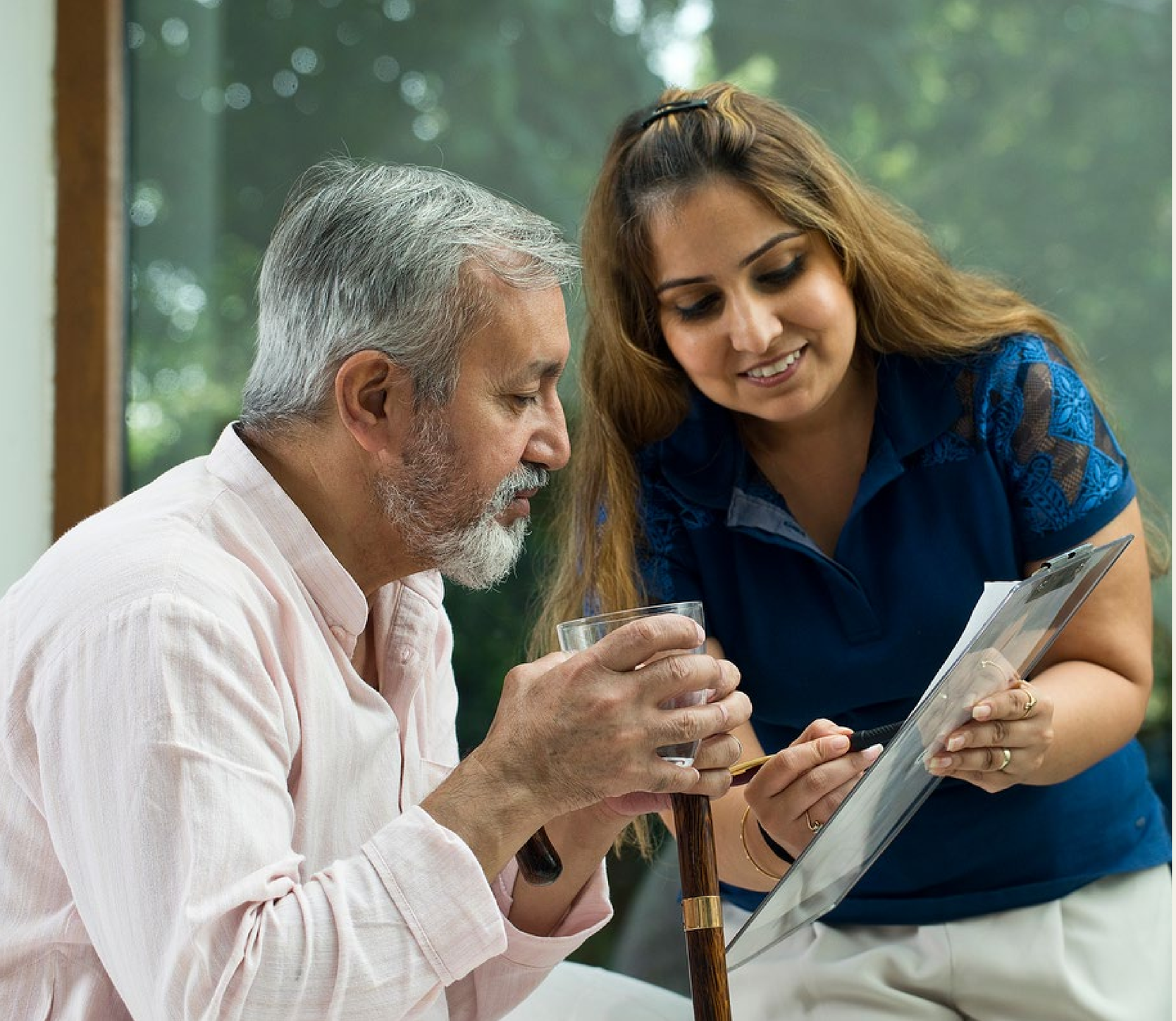
2.2 Prioritise community engagement

It's common for under-served communities to be described as 'hard to reach' by the pharmaceutical industry, however it is becoming clear that trialists are employing ineffective approaches when attempting to establish connections with these communities. Trialists should prioritise actively visiting communities and working to build relationships that demonstrate how important community insights are for successful trials. Community relationships should be built on bi-directional input, whereby trialists provide consistent value to a community outside of the trial, and communities provide insights on clinical trial perceptions and current unmet needs. Trialists could host educational talks within community centres to help raise awareness of the proposed trial among community members. For example, Talking Trials works in partnership with the South Riverside Community Development Centre in Cardiff to facilitate inclusive engagement and involvement in health research through collaborating with existing community groups. This has enabled local community groups to share research that matters to them and their communities.[28]

A good example of this recommendation in practice was discussed in one of the roundtable discussions, where a CTU held a market stall to interact with members of the public on clinical trials day. It was discussed that the approach was successful in educating members of the public on clinical trials and raising awareness of clinical research.

Considerations for implementation

Developing lasting relationships with communities can be challenging given the restrictive timelines trialists have for developing grant applications, and the project-based nature of funding. Trialists should visit communities in their local areas to discuss clinical trials as a general topic and use insights to reflect on their processes and clinical trial designs. Trialists may choose to connect with local charities and community organisations, or they may identify key trusted voices within communities. Where possible, trialists should link with other researchers in their institution to identify others involved in community engagement activities, and use their links to partner with community groups together. Some community groups have reported receiving emails from research teams from the same university on projects that are not connected, which can leave community groups feeling overwhelmed and resentful — as multiple interactions with numerous research teams can feel predominantly transactional.



Recommendation three

Communication

Communication

3.1 Use simple language and layer participant information

PPI colleagues advised that patient information is often presented in long, dense formats — which can be off-putting and hard to navigate. Consent forms and other patient information materials should be created using simple language, with layers of information, starting with the most important information to participants to help to navigate complex information. This approach would also help improve inclusivity for participants with lower health and/or language-specific literacy, which was considered one of the most important factors in facilitating inclusive clinical trials by the PPI panel.

Considerations for implementation

There was an acknowledgement of the complexity of clinical trials and the legal requirements around fully informed consent |and data protection (GDPR) that determines the information required to be provided to participants. Changes to the normative process or usual information may take longer to negotiate with the research ethics committee, which then has an impact on tight trial set-up timelines.

To reduce the risk of delays, layered information can be provided in addition to, rather than instead of, the legally required documentation. Trialists could go a step further and co-create patient information with patient and community groups, which will require PPI input prior to material creation.

3.2 Tailor communication for different groups

To be as impactful and effective as possible, all communications must be tailored appropriately. In relation to cultural considerations, some cultural communities will have a preference to speak about conditions in a specific way — for example, in some cultures it is preferred not to talk about mental health or cancer directly. Outside of cultural consideration, 'easy read'[29] or similar formats[30] can be produced for people with learning disabilities, and might be helpful for others with some communication difficulties. As a general rule, health information should be written for a reading age no greater than 12 years.

Considerations for implementation

Trialists may improve their understanding of cultural differences in language or communication needs by liaising with key voices in communities to advise on wording and translations. This may take longer, and more resources may be required than for standard document development.

3.3 Use videos to supplement information and instructions

Videos can be used to succinctly and clearly explain clinical trial designs, procedures, recruitment processes, consent processes, and more — including tutorials for any trial aspects being delivered at home. This approach could be particularly useful for trials that have several treatment pathways or a complex design. Videos may help improve diversity in clinical trials by enabling trial aspects to be carried out at home — widening the participant pool. There are multiple examples of video resources that can be used to supplement trial communications with patients on the STEP UP website.

Considerations for implementation

Careful consideration should be given to how information is shared with participants, especially if each group in a clinical trial is assigned specific videos to watch. Unregulated sharing of videos between groups can effectively be considered 'contamination' in trials where the videos are integral to study design. While videos could support research staff in explaining clinical trial processes to participants, trialists should ensure they are not dismissive of participant questions by referring them to the video. Costs for video production and translation should be included in funding applications.

3.4 Use interpreters throughout the trial

Translation alone is not enough to increase diversity in clinical trials. If translations are used in the recruitment materials, they should also be used during data collection and dissemination, and interpreters should be used throughout the duration of the trial as needed.

Considerations for implementation

The more languages used in the translated materials, the more interpreters that will be needed for the trial. Interpreters are an expensive resource, and need to be factored into cost planning for the clinical trial — the Trial Forge Guidance 3 provides some example costs.[31] Trialists will need to identify processes for getting translations done, which must include back-translation and using interpreters during the trial. This will be more difficult where time between identification and consent is short. Trialists may choose to link with local authority interpreters or the NHS interpretation services to deliver interpretation in their trials, or use other professional translation and interpretation services. Trialists should always check the quality of the translation and include back translation.

3.5 Reduce power imbalances to increase trust

Clinicians and trialists are well-accustomed to using complex scientific language, but often the use of this language can widen power imbalances. Trialists should practice using lay language to communicate with participants to reduce power imbalances and increase trust in healthcare and clinical research. Recruiting staff should introduce the idea of research before providing details of the trial. They should gauge the level of research knowledge and introduce concepts at a level the participant understands. Staff introducing themselves using their first name was suggested as one way to build trust in conversations with participants, though it was noted that some people might prefer to use titles and surnames, so allow participants the option to choose.

Considerations for implementation

Trialists and clinicians often operate on a strict schedule, which leaves little time to provide extended explanations for people who have limited understanding or knowledge of clinical trials. This may lead trialists to prioritise efficiency over efficacy when it comes to communication, which a PPI member suggested could contribute to potential participants feeling ignored and lead to lower levels of trust in those running the clinical trial.

Communication

3.6 Show gratitude to patients

PPI colleagues highlighted that participants often feel like they are not educated enough to take part in clinical trials, or that they are unable to provide 'good' answers and may be perceived as 'difficult'. Trialists should prioritise ensuring the participant understands they are valued and why it's important that a diverse range of people are included in clinical trials.

Considerations for implementation

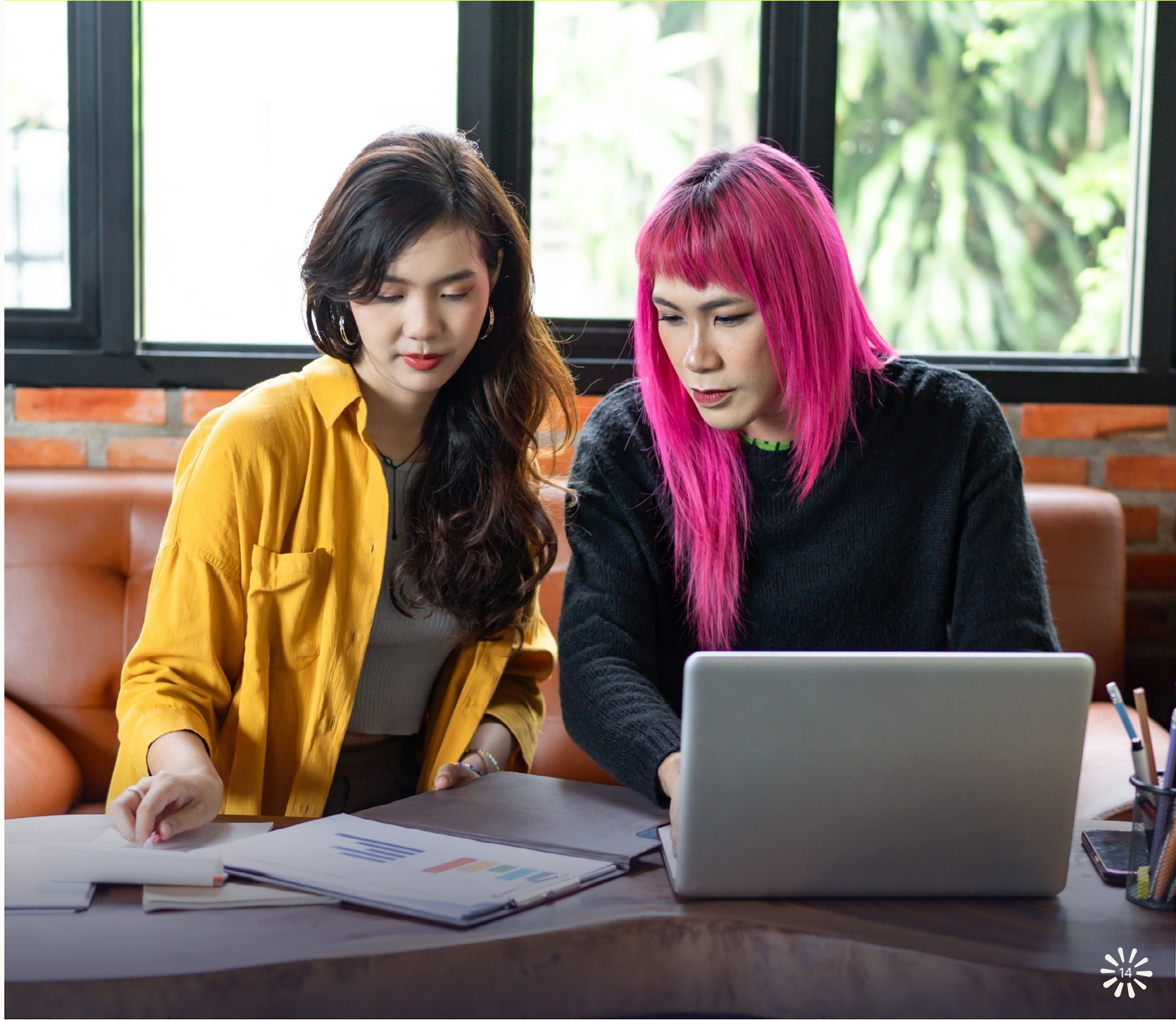
While this is considered easy to implement, trialists may feel restricted by time constraints during appointments, and may also lack the training to effectively communicate the need for diversity in clinical trials to participants.

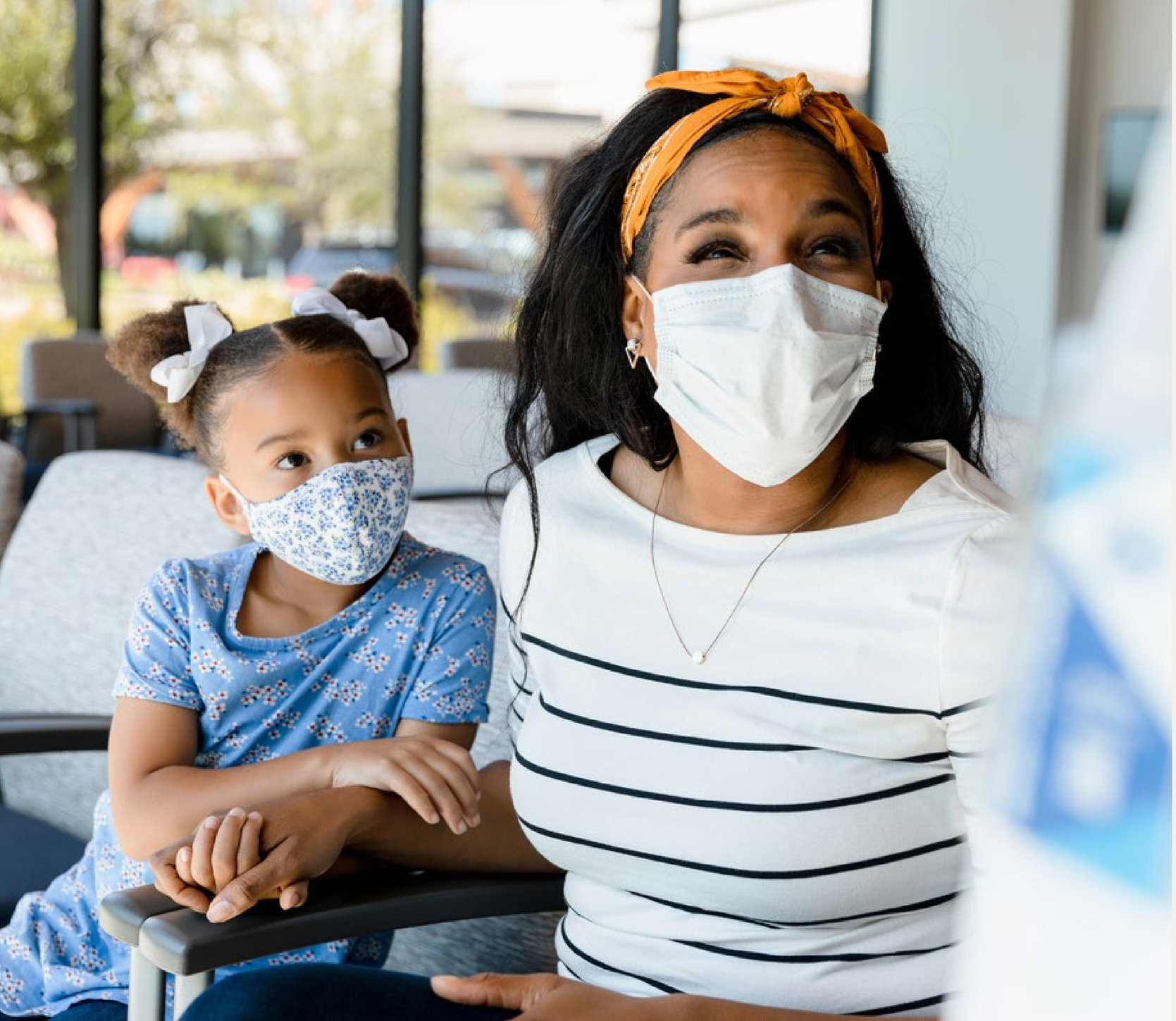
3.7 Strategically plan sharing trial outcomes with communities

Participating in clinical trials and not learning about the results of a study is an all-too-common occurrence, which can contribute to lower levels of trust for participants — particularly people from under-served populations.

Considerations for implementation

Sharing results can take different forms, e.g., short videos or flyers. These could be circulated by local charities and community groups.





Recommendation four

Flexibility

Flexibility

4.1 Provide flexibility in recruitment methods

Remote screening and consent processes can help make clinical trials more inclusive for people from under-served populations through providing access to trials outside of working hours and reducing travel costs so people are not 'out of pocket'. Where possible, trialists should aim to include these approaches alongside traditional face-to-face data collection, and should follow best practice guidance when implementing these approaches — including guidance from the NHS Health Research Authority[32] and resources shared by the UK Trial Managers' Network.[33]

Considerations for implementation

Using numerous methods of recruitment can lead to more occurrences of human error, result in greater costs, and require more staffing resources. It is important to consider that even if one method does not recruit many people, it may help recruit one or more under-served populations. Using only one method may exclude groups — for example, using online forms will exclude groups with lower digital literacy and access; these groups are more likely to be older, living with disabilities, or from socio-economically disadvantaged backgrounds. Trialists may also be hesitant to add remote methods of recruitment to an ethics application due to concerns of delays to trial approval.

4.2 Consider alternative modes of delivery

Remote methods could also be carried through to data collection — through telephone calls or online video calls. Remote trial design may also include the option for interventions to be delivered in local clinics, GPs, community venues, or participant homes. Similar to recommendation 4.1, this will help trials be more accessible to people who work inflexible hours or have less means to travel long distances to clinical sites.

Considerations for implementation

Using alternative modes of delivery can be costly, which will need to be detailed in grant applications. However, cost estimates may be hard to predict before the trial starts and may not accurately reflect the value of recruiting under-served populations. Some interventions or data collection methods might need to be administered by a healthcare professional or require equipment, which makes remote methods more costly, impractical, or even impossible.

4.3 Be flexible with times for clinic visits

Where alternative modes of delivery are not possible, trialists should consider flexible times for clinic visits. Flexible clinic visit times will enable participants to fit clinical trials around their lives, without requiring them to use annual leave or arrange childcare.

Considerations for implementation

If participants are unable to attend appointments without prior notice, or are late to their appointments, trialists must be careful not to use overly critical language that makes participants feel they are being disciplined for being unable to adhere to strict time schedules. Trialists should try to find alternative ways to help participants navigate trial participant schedules.

4.4 Arrange travel and other initiatives up front

Where possible, participants should be provided with travel arrangements upfront — as bearing the initial costs of travel may not be feasible for some under-served populations. If this is not possible, trialists should provide reimbursement as soon as possible.

Considerations for implementation

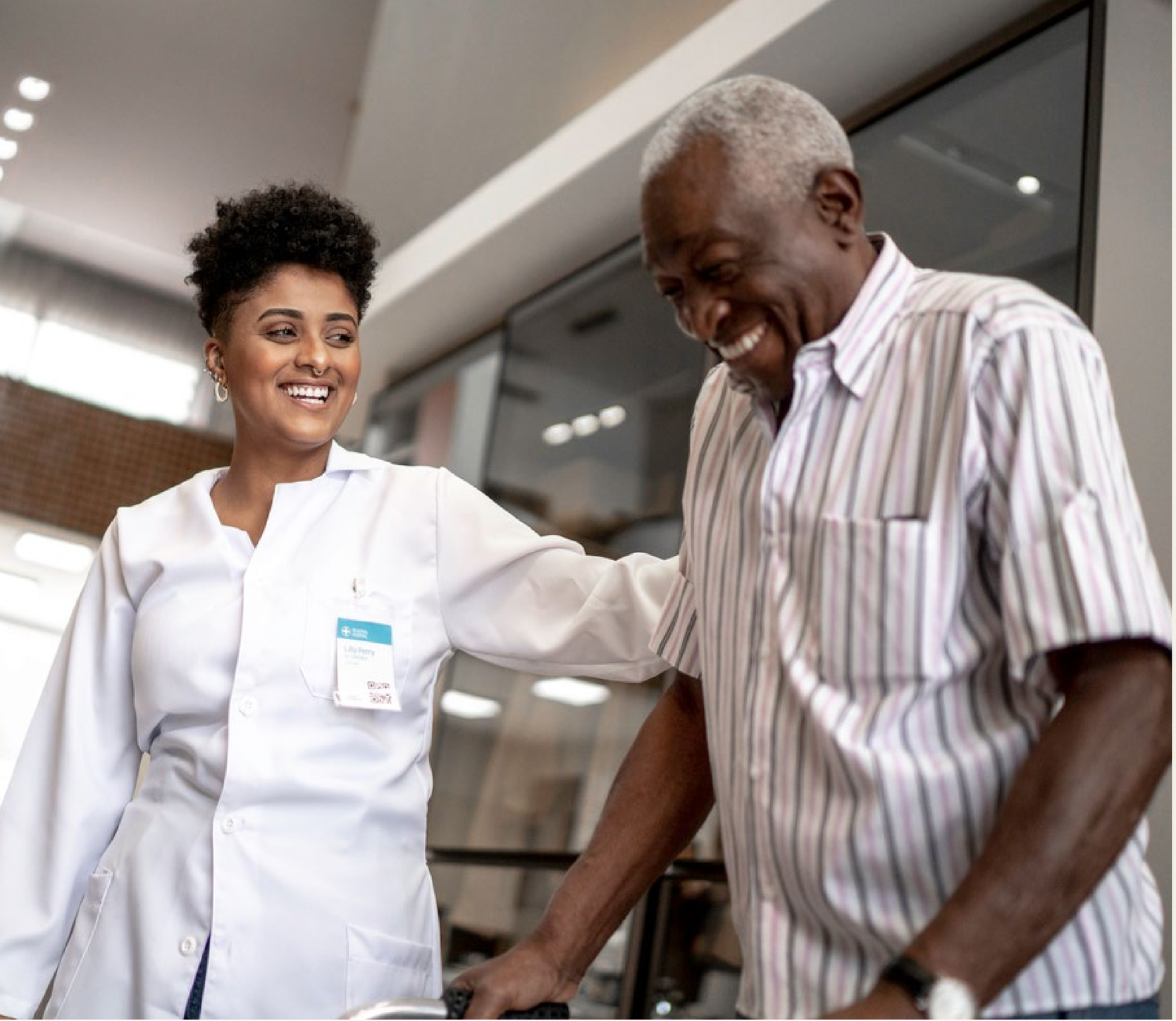
Using third-party organisations to provide travel arrangements or reimbursements may help reduce burden for trialists, but may also come at a cost. If payment should be delayed for any reason, for example if it needs to go through an organisation, participants should be informed of this.

4.5 Consider alternative and appropriate incentives

PPI contributors highlighted that incentives to participate in clinical trials are often not useful, and that appropriate reimbursement for participants' time and effort is more important in building trusting relationships between patient communities and the trial community.

Considerations for implementation

Various alternative incentive options were discussed, including certificates for children and letters that acknowledge participant contributions. Trialists should closely collaborate with a diverse range of PPI colleagues to co-create appropriate incentives where possible and include them in the funding application, and fully reimburse participants for costs incurred as part of the trial.



Recommendation five

Researcher training and hiring strategies

Researcher training and hiring strategies

5.1 Provide training to staff

Some PPI contributors reported a lack of understanding about the impact of racism, ableism, and prejudice in healthcare from trialists in previous collaborations, leading to further mistrust in clinical research and healthcare. It is important for trialists to be empathetic, non-judgmental, and able to communicate with a diverse range of potential participants about clinical research. Trialists should be confident in their ability to engage with under-served groups in an inclusive and appropriate way.
To ensure all research staff, including recruiting staff and those delivering the intervention, are culturally aware, all involved in the trial should receive cultural competency training. Such training should help reduce implicit biases, which PPI raised as important. Other training important for trialists includes inclusive communication methods — such as layering clinical trial information, participant centred communication, and providing guidance for recruitment of those with impaired capacity to consent.

Considerations for implementation

Trialists may not be employed specifically for their work on one clinical trial, and so asking them to complete additional training may prove a challenge. There was some scepticism discussed during a roundtable on the impact of cultural competency training on people's understanding of different cultures, with people suggesting the focus should be on ensuring staff were empathetic and competent at communicating with a diverse range of people without judgement. Many stakeholders felt that the people who need the training are rarely the people who attend, engage, or implement it. There should be careful consideration about how to ask staff to complete cultural competency training.
If possible, training should be provided for all people working within CTUs, and should be tailored to benefit staff based on the trial participant population. For example, if a CTU will be recruiting people with learning disabilities or impaired cognition, training for trialists should cover effective communication styles for this population.

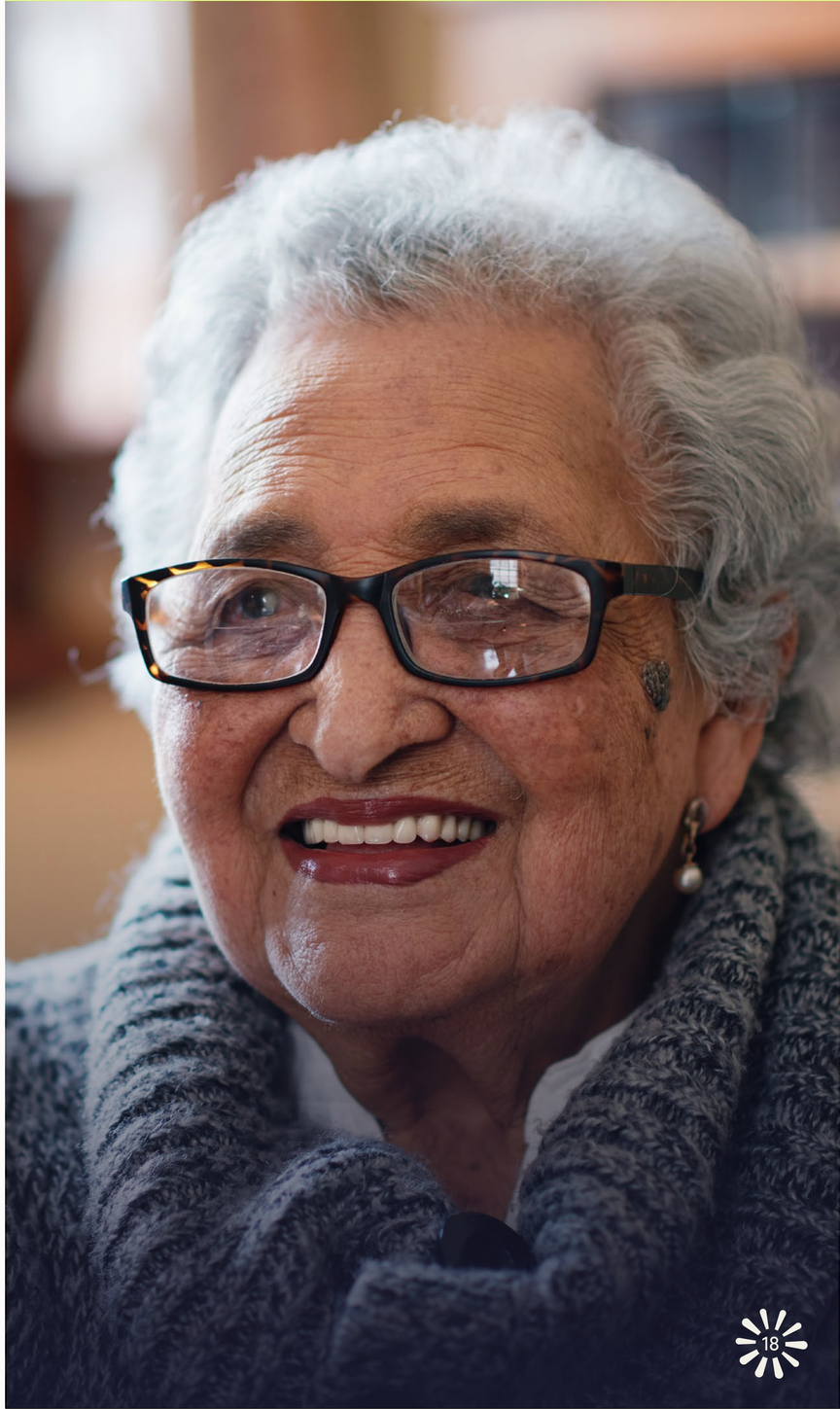
5.2 Diversify trial teams

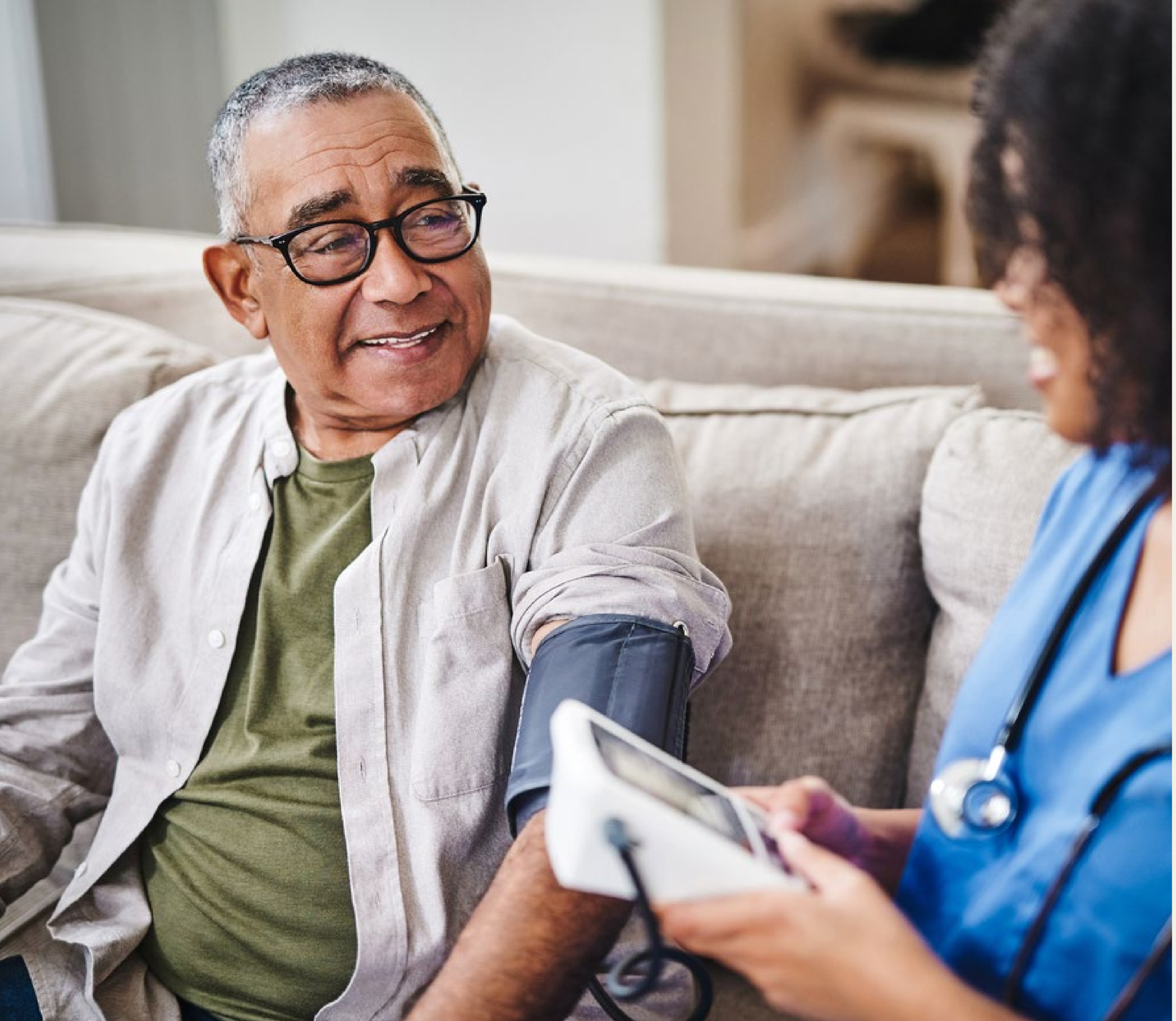
One way to ensure people from under-served groups feel safe and trust the clinical trials process is to ensure recruiting staff and clinicians are from a diverse range of backgrounds. Having recruiting staff and clinicians from under-served groups may also help to build trust with participants and can lead to more personalised communications. Collaborating with community ambassadors and research champions has also been shown to help link trialists with communities.

Considerations for implementation

Trialists for a single clinical trial have limited knowledge and influence on hiring practices at clinical trial sites. To ensure teams have the necessary skillsets for specific trials, temporary research staff may need to be hired, or trialists may need to select sites based on the diversity of their clinicians and recruiting staff. Trialists may consider collaborating with communities to train community researchers to facilitate recruitment for research projects and deliver interventions.

It was noted that there may be instances where people prefer to be approached or treated by someone outside of their culture or social group, for example in relation to mental health research and treatment.





Recommendation six

Data collection

Data collection

6.1 Collect demographic data

Trialists need to collect relevant data to facilitate analysis of trial recruitment data, including that of under-served groups. This includes information on those entering the trial, those who are refusing, or those who are not being approached. Collecting demographic data is central to identifying and understanding disparities between demographic groups, and can also be used to demonstrate representation of various demographics within a trial, and therefore it's generalizability to the general population.

Considerations for implementation

Aggregate data can be collected to understand the makeup of the site's population, but this is not always possible, and the data is often limited, e.g., learning disability diagnoses not recorded, or ethnicity is often recorded as 'unknown'. In addition, data protection laws prevent this data from being collected prior to participants giving consent — which makes it challenging to know who is choosing not to participate in a clinical trial. Inclusive language should be used in relation to sex and gender.[34]

The INCLUDED project provides recommendations for collecting ethnicity data, which includes allowing participants to self-describe their ethnicity on data collection forms.[35] Socioeconomic status data is not routinely collected in clinical trials, which means trialists are often unaware if their teams are recruiting people from this under-served group. Socioeconomic status is multidimensional, so trialists should consider collecting more than one variable such as education, income, and location. This information might feel like unnecessary personal data for participants to provide, so trialists should explain to participants why this data is being collected.

6.2 Allow different methods of data collection

Trialists should consider using a varied selection of data collection methods to make clinical trials more accessible for participants who find travel difficult. Methods could include online completion, paper forms, telephone calls, and clinic visits or home visits.

Considerations for implementation

Trialists will need to effectively plan ahead to ensure multiple methods of data entry are monitored and collected correctly throughout the trial. Remote methods, such as telephone calls and home visits, may result in greater costs and require more staffing resources which should be considered at the funding application stage.

6.3 Strategically plan outcomes and analysis

If participants are unable to complete their own data collection forms, trialists should include support mechanisms, such as nominated supporters or easy-read versions, and allow for proxy completion where possible. Proxy completion may be carried out by family members, friends, care workers, or clinicians.

Considerations for implementation

Trialists tend to use validated measures or the same measures used in previous research to allow for comparisons, and there may not be a validated proxy version of the chosen primary outcome measure. Proxy measures could be used as a secondary outcome if there is not an option for this as a primary measure.

Where a self-report version and a proxy version of a measure is used, it is important to consider how the data will be combined in the analysis.

6.4 Monitor demographics throughout the trial

To ensure the participant population is inclusive of under-served groups, trialists should monitor the participants in their trial at TMGs and other oversight committees. Where possible, action should be taken to improve the representation of under-served groups.

Considerations for implementation

It is not always possible to collect data to understand the site's population, and even when it is possible, the data may be missing or recorded as 'unknown'. Discussions with sites might help to understand if there are common barriers to recruitment in their populations, or particular under-served groups.

Trialists should inform sites on key information that should be recorded and why it is necessary.

6.5 Collect data on reasons for participant drop out

Trialists should use participant dropout as an opportunity to understand why participants are not completing the study, and to implement measures to prevent further dropout. Trialists should also identify reasons why people who are eligible to participate are declining participation in the screening and consent stages.

Considerations for implementation

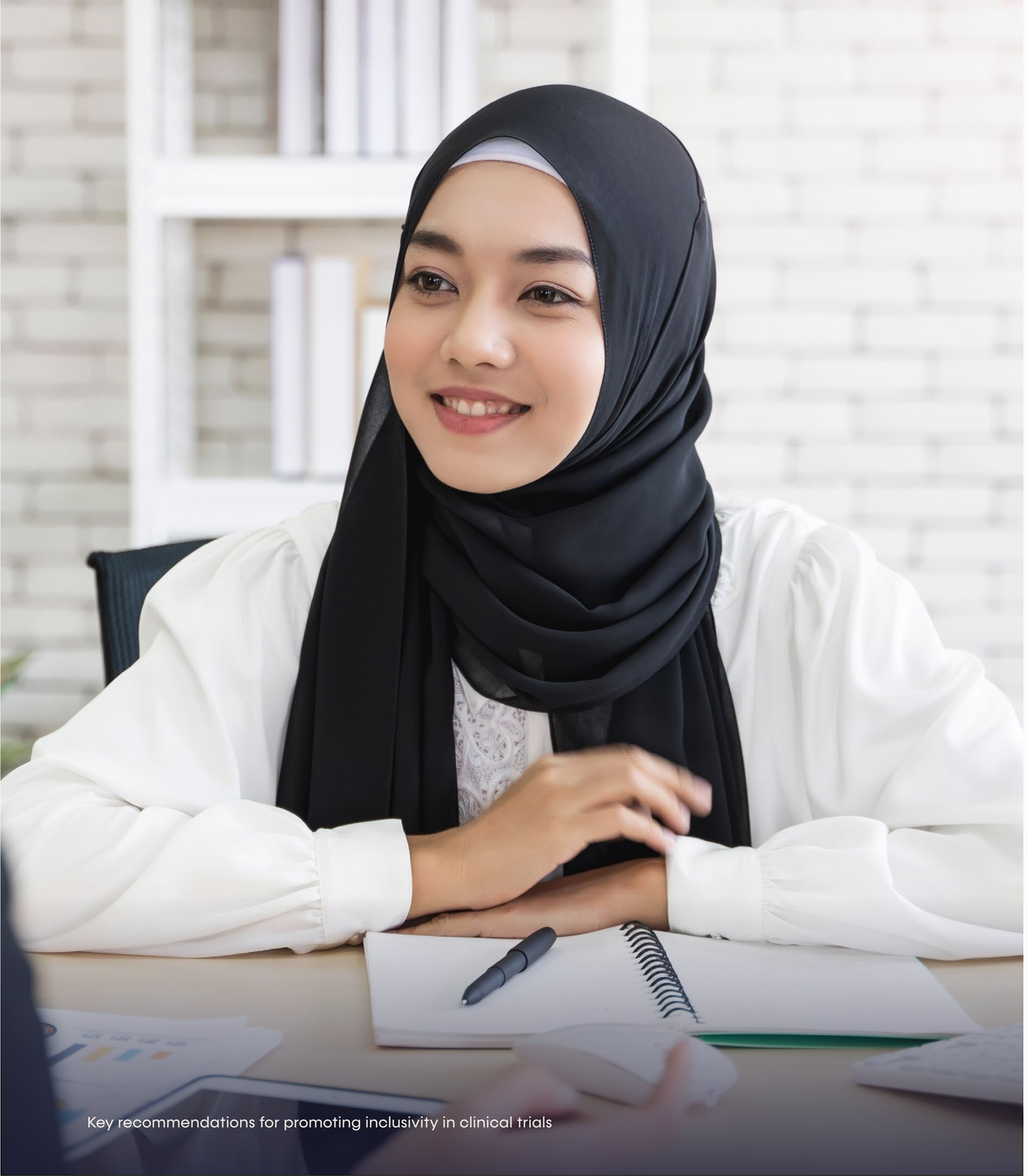
Participants have the right to withdraw without giving reason, and so may be 'lost to follow-up'. While trialists may ask participants why they are deciding to leave a trial, participants should always be reminded that they do not have to provide a reason if they do not wish to. A process should be outlined for trialists to collate any feedback given by participants, to then be reported to oversight committees where appropriate.

6.6 Consider sub-group analysis by characteristic

There is a recommendation from PPI contributors to consider undertaking sub-group analysis by under-served group, and this has been echoed at several other PPI events. The NIHR EDI strategy includes encouraging researchers to disaggregate findings by sex,[36] and the Wellcome Trust are developing a policy on reporting results by sex and gender.[37] The relevant data needs to be collected to undertake such analysis and it is extremely important to highlight that samples are likely to be small and purely exploratory in nature.

Considerations for implementation

Underpowered sub-group analysis can be dangerous if used inappropriately, and it is useful to explain this to PPI colleagues if sub-group analysis is suggested. Any sub-group analysis that is not specifically designed to be fully powered should be purely exploratory. A recent review reported on sex-subgroup analyses, which are recommended by the US regulators in cancer trials, and found included sub-group analyses were of poor methodological quality.[38]



Conclusion and acknowledgements

Conclusion

STEP UP is the culmination of research analysis and contributions from over 40 experts; trialists, clinicians, trial participants, PPI participants, and researchers. We anticipate the recommendations outlined by STEP UP will provide future trialists with clear, actionable tasks to complete when designing and facilitating inclusive clinical trials.

Although there is little empirical evidence of the effectiveness of these recommendations at present, they outline comprehensive and constructive advice for implementation. Future work is needed to evaluate the effectiveness of these recommendations in practice.

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