Ensuring your trial is designed for all who could benefit

Trial teams need to do everything possible to make their trial relevant to the people to whom the results are intended to apply (often patients) and those expected to apply them (often healthcare professionals). The four questions below are intended to prompt trial teams to think about who should be involved as participants, and how to facilitate their involvement as much as possible. These questions should be considered by trial teams in partnership with patient and public partners, including individuals from, or representing, groups identified in Question 1. Note that:

* *‘Intervention*’ means the treatment, initiative or service being evaluated.
* ‘*Comparator*’ means the what the intervention is being compared to.
* ‘*Effective*’ means the intervention provides important benefits for people with the disease or condition that is the focus of the trial.

We recommend that trial teams use the worksheets to help them think through their answers to the four key questions.

**1.** Who should my trial results apply to?

Which groups in the community could benefit from the intervention if it was found effective, or benefit from not having it if it was found ineffective and/or harmful?

**2.** Are the groups identified in Question 1 likely to respond to the treatment in different ways?

How might the disease or cultural factors mean that some groups in the community respond to, or engage with, the treatment(s) being tested in different ways?

**3.** Will my trial intervention and/or comparator make it harder for any of the groups identified in Question 1 to engage with the intervention and/or comparator?

How might the intervention and/or comparator, including how they are provided, make it harder for some groups in the community to take part in the trial?

**4.** Will the way I have planned and designed my trial make it harder for any of the groups identified in Question 1 to consider taking part?

How might elements of trial design, such as eligibility criteria or the recruitment and consent process, make it harder for some groups in the community to take part?

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| **1. Who should my trial results apply to?** |
| **[NB. Completed by Heidi Gardner (University of Aberdeen) and Declan Devane (NUI Galway). We were not involved in this trial,** **we did not discuss the information on the worksheets with the trial team, and the worksheets were completed retrospectively rather than at trial design, none of which is ideal.**  **The documents we used regarding the trial were the trial registration document:** [**https://www.isrctn.com/ISRCTN77258279**](https://www.isrctn.com/ISRCTN77258279)**, and the trial’s protocol which is available to download here:** [**https://fundingawards.nihr.ac.uk/award/16/167/123**](https://fundingawards.nihr.ac.uk/award/16/167/123)**. Other documents that we used to answer the Framework’s questions are included as hyperlinks throughout.**  **Given the above, the information in the worksheets may not be a proper reflection of the trial because we did not have access to all the trial materials. The information is therefore intended to be illustrative, not definitive.]**  The WILL trial aims to investigate the clinical effectiveness and cost-consequences of planned early term delivery at 38+0 to 38+3 weeks’ gestation, compared with expectant care at term until at least 40+0 weeks’ gestation, in pregnant women with chronic or gestational hypertension that develops by 37+6 weeks’ gestation. Participants should be people with a diagnosis of chronic or gestational hypertension; chronic hypertension is high blood pressure that is present before pregnancy begins, gestational hypertension is high blood pressure occurring during pregnancy.  Hypertensive disorders occur in [8-10% of all pregnancies](https://cks.nice.org.uk/topics/hypertension-in-pregnancy/background-information/prevalence/). Chronic hypertension has been reported to complicate [0.6-2.7% pregnancies worldwide](https://cks.nice.org.uk/topics/hypertension-in-pregnancy/background-information/prevalence/) and is becoming [more common with rising maternal age and levels of obesity](https://cks.nice.org.uk/topics/hypertension-in-pregnancy/background-information/prevalence/). The condition is associated with complications including pre-eclampsia, stillbirth, fetal growth restriction and preterm birth. Gestational hypertension is likely to be under-reported, with [recorded rates of 4.2-7.9%](https://cks.nice.org.uk/topics/hypertension-in-pregnancy/background-information/prevalence/). Risk factors for gestational hypertension include nulliparity (rates in nulliparous women range from 6-17% while rates in multiparous women range from 2-4%), multiple pregnancy, Black ethnicity, maternal obesity, and maternal type 1 diabetes.  A [recent study in the UK](https://pubmed.ncbi.nlm.nih.gov/30318830/) showed that complications due to chronic hypertension during pregnancy are more common for Black women than they are for white women. The risk of stillbirth was five times greater, preterm birth nearly double, and fetal growth restriction more than double. Asian women (here women from Indian, Pakistani, and Bangladeshi communities were included), compared to white women, were also at increased risk but to a lesser extent; stillbirth 1.6% vs 0.6%, preterm birth 20% vs 11%, and fetal growth restriction 12% vs 7.4%. Previous findings have found similar results in the US, where researchers suggested the reason being due to inequalities in access to healthcare. With the NHS being free at the point of use, these new results suggest that inequalities in healthcare access are not the only reason. The study’s researchers [suggest](https://pcwhf.co.uk/news/ethnicity-and-chronic-hypertension-in-pregnancy/) that other factors could be involved. Previous population studies have suggested that young and middle-aged women of Black ethnicity demonstrate a steeper age gradient in the prevalence of chronic hypertension than white women.  The trial team should work to include women from Black ethnicities across all age ranges, with additional efforts to include older Black women, women with Indian, Pakistani, and Bangladeshi heritage, and women with mixed ethnicities that include Black and/or Asian identities. The trial sample should look like the population of women that are at highest risk for hypertension during pregnancy as well as the highest risk of having complications associated with the condition. This means that the trial sample needs to involve ethnic minority individuals, especially women of Black ethnicities, and women with Indian, Pakistani, and Bangladeshi heritage, at higher levels than in the general population. The current demographics for the UK suggest that 3.3% of the population are from Black ethnicities, and 7.5% of the population are from Asian ethnic groups (including Indian, Pakistani, Bangladeshi, Chinese, and other Asian backgrounds), the trial sample should include more than 3.3% and 7.5% of Black and Asian women respectively, particularly if the trial team are planning for subgroup analyses. We recommend a pre-planned exploration of benefits and harms by ethnic group, especially given the disproportionate effects of hypertension on pregnant Black women, and women with Indian, Pakistani, and Bangladeshi heritage heritage. The need for this pre-planned subgroup analysis suggests that over-sampling by ethnicity might be useful. |

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| **2. Are the groups identified in Question 1 likely to respond to the treatment in different ways?** [**( VIEW WORKSHEET )**](#WorksheetONE) |
| **[This question has been answered with a focus on ethnicity for the purposes of this example, though the questions have wider relevance than ethnicity.]**  As discussed in question 1, prevalence and complications because of the condition are increased, and [age gradient of condition is steeper](https://www.researchgate.net/publication/6530871_Black-white_differences_in_age_trajectories_of_hypertension_prevalence_among_adult_women_and_men_1999-2002) in Black women, and to a lesser degree women with Indian, Pakistani, and Bangladeshi heritage in comparison to white-British populations. Due to the increased health demands of these minority groups, they may stand to benefit more to the treatment. It is not clear whether the root cause of these differences is genetic, social, cultural, or a mix of factors, so it is difficult to suggest whether these groups will respond to the treatment in different ways, it is therefore important that these groups are included in the trial. |

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| **3. Will my trial intervention and/or comparator make it harder for any of the groups identified in Question 1 to engage with the intervention and/or comparator?** [**( VIEW WORKSHEET )**](#WorksheetTWO) | |
| **[This question has been answered with a focus on ethnicity for the purposes of this example, though the questions have wider relevance than ethnicity.]**  The protocol lists a member of the public as an independent member of the trial steering committee, but it is not clear what their ethnicity is or if or how this person was involved in selecting or contributing to the intervention and/or comparator.  The trial intervention is labour induction or elective Caesarean at 38 weeks. Participants in the control will receive expectant care at term until at least 40 weeks’ gestation. This will involve maternal and fetal surveillance and management as an integrated package of care based on current NICE guidelines, awaiting spontaneous labour or delivery indicated by clinical need.  In both intervention and control arms, participants have the potential to deliver their baby via Caesarean, it’s the matter of timing that is key. If going into labour spontaneously is important to people giving birth or their families, the trial may not be a viable option for them. We have not found any evidence to suggest that this perspective is found more prevalently in one or other ethnic group. One thing that may play a part in the decision to take part in the trial is trust in the research and clinical teams that the participant is exposed to. [Black women have been historically abused and exploited by the medical profession, particularly in the maternity field](https://pubmed.ncbi.nlm.nih.gov/19175244/), and mistrust between Black women and researchers/medical professionals is understandably high. In the intervention arm of this trial, the participant will undergo planned early term delivery via labour induction of elective Caesarean; where trust is low, it is reasonable to believe that women will be less likely to trust medical professionals to induce delivery of their baby early. | |
| 1. **Will the way I have planned and designed my trial make it harder for any of the groups identified in Question 1 to consider taking part?** [**( VIEW WORKSHEET )**](#WorksheetTHREEA) |
| **[This question has been answered with a focus on ethnicity for the purposes of this example, though the questions have wider relevance than ethnicity.]**  The protocol lists a member of the public as an independent member of the trial steering committee, but it is not clear what their ethnicity is or if or how this person was involved in planning and designed the trial.  Research staff will be asked to screen clinic booking lists, medical assessment unit lists, and inpatient lists for women with chronic or gestational hypertension and liaise with their clinical colleagues to identify potentially eligible participants. Clinical staff with access to the clinical records will make the initial approach. Consent will be obtained by a GCP-trained midwife or medically qualified member of the obstetric team. As mentioned previously, Black and minority ethnic populations are known to distrust the medical and research systems due to historical abuse and exploitation, so it may be that being approached by a medical or healthcare professional would limit participation. The protocol mentions that trial promotional materials (such as posters and pamphlets) will be available to sites to raise awareness of study, but no detail is given about the information that potential participants receive about trial or whether language or cultural translations will occur. We would recommend that the trial team consider working with PPI representatives from ethnic minority groups (Black women specifically), to assess whether any form of translation of trial documentation is required.  Data are collected through a variety of methods likely all including some involvement from NHS or research staff; the woman’s medical notes and the neonatal notes being the primary method, along with two questionnaires. As mentioned previously, access to medical notes may be an uncomfortable scenario for women from ethnic minority participants due to mistrust.  A questionnaire assessing satisfaction with care will be self-administered and completed prior to hospital discharge where possible. Where this isn’t possible it will be self-administered at home, or administered by research staff either over the phone, or in-person at a routine postnatal medical appointment. The second questionnaire will be administered via text message or online through TextLocal, or by post or by phone if necessary. If it’s possible for trial data collection processes to be complete within the hospital setting, that would always be preferable as it will avoid missing data that will likely happen once mother and baby are at home and settling into their new way of life. Due to increased risk of complications from hypertension during pregnancy in Black women, these participants may spend longer in hospital which may increase the chances of complete data for them, though in the same vein, if they are dealing with complications and worrying health situation for mother and/or baby, questionnaire completion is likely to be bottom of their list of priorities.  The second questionnaire relies on participants having access to a mobile telephone or device with Wi-Fi. This may be an issue for participants experiencing socioeconomic disadvantage. Ethnic minority populations are known to be at higher risk of socioeconomic disadvantage, so the trial team should think about contributions to WiFi or mobile data costs. |

Worksheets for thinking through factors that might affect ethnic group involvement in a trial

These worksheets are intended to be used by trial teams in partnership with patient and public partners to ensure that ethnic group involvement is considered at the trial design stage.Before completing the worksheets, the trial team **should have answered Question 1** **of the INCLUDE Key Questions with regard to ethnic group involvement**.

The worksheet may cover issues that some trial teams already think about. The intention is that the worksheet will help to highlight issues consistently across trials for all trial teams, as well as raising some questions that may not be routinely considered at present.

Finally, while the worksheet asks trial teams to think about possible differences between ethnic groups, it is important to remember that there are also differences *within* ethnic groups, especially between generations and between genders. No ethnic group is homogenous. See [Appendix 1](https://www.trialforge.org/trial-forge-centre/include/) for more on our definition of ethnicity.

**Worksheet 1**

This worksheet provides some questions **to guide your thinking about ethnic group involvement when answering Question 2** of the INCLUDE Key Questions.

**Disease and cultural factors that might influence the effect of treatment for some ethnic groups**

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| **Disease** | How might the prevalence of the disease vary between each ethnic group in the target population? | **Response:** Hypertensive disorders occur in [8-10% of all pregnancies](https://cks.nice.org.uk/topics/hypertension-in-pregnancy/background-information/prevalence/). Chronic hypertension has been reported to complicate [0.6-2.7% pregnancies worldwide](https://cks.nice.org.uk/topics/hypertension-in-pregnancy/background-information/prevalence/) and is becoming [more common with rising maternal age and levels of obesity](https://cks.nice.org.uk/topics/hypertension-in-pregnancy/background-information/prevalence/). The condition is associated with several severe complications including pre-eclampsia, stillbirth, fetal growth restriction and preterm birth. Gestational hypertension is likely to be under-reported, with [recorded rates of 4.2-7.9%](https://cks.nice.org.uk/topics/hypertension-in-pregnancy/background-information/prevalence/).  Research has consistently [demonstrated](https://cks.nice.org.uk/topics/hypertension-in-pregnancy/background-information/risk-factors/) that Black women have an [increased risk](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4171100/#R5) of hypertension during pregnancy. In addition, previous population studies have found that young and middle-aged women of Black ethnicity demonstrate [a steeper age gradient](https://www.researchgate.net/publication/6530871_Black-white_differences_in_age_trajectories_of_hypertension_prevalence_among_adult_women_and_men_1999-2002) in the prevalence of chronic hypertension than white women and Black men. |
| How might the severity of the disease vary between each ethnic group? | **Response:** A [recent study in the UK](https://pubmed.ncbi.nlm.nih.gov/30318830/) showed that complications due to chronic hypertension during pregnancy are more common for Black women than they are for white women. The risk of stillbirth was five times greater (3.1% vs 0.6%), preterm birth nearly double (21% vs 11%), and fetal growth restriction more than double (16% vs 7.4%). Asian women (here women from Indian, Pakistani, and Bangladeshi communities were included), compared to white women, were also at increased risk but to a lesser extent; stillbirth 1.6% vs 0.6%, preterm birth 20% vs 11%, and fetal growth restriction 12% vs 7.4%. Previous findings have found similar results to be true in the US, where researchers suggested the reason being due to inequalities in access to healthcare. With the NHS being free at the point of use, these new results suggest that inequalities in healthcare access are not the only reason. The study’s researchers [suggest](https://pcwhf.co.uk/news/ethnicity-and-chronic-hypertension-in-pregnancy/) that other factors could be involved, with participants standing to benefit from tailoring blood pressure medication to ethnicity during pregnancy; ethnic origin is routinely considered when prescribing medication for high blood pressure, but this is not the case during pregnancy. |
| How might the disease present in people from each ethnic group (this may include symptoms, type or pattern or rate of disease progression)? | **Response:** As mentioned earlier, population studies have found that young and middle-aged women of Black ethnicity demonstrate [a steeper age gradient](https://www.researchgate.net/publication/6530871_Black-white_differences_in_age_trajectories_of_hypertension_prevalence_among_adult_women_and_men_1999-2002) in the prevalence of chronic hypertension than white women and Black men. In [an analysis of Black and white women in the US](https://pubmed.ncbi.nlm.nih.gov/1908590/), at the age of 15 Black women were 1.5 times more likely to be hypertensive than white women. At age 44 years, Black women were more than 3 times more likely to be hypertensive than white women. | |
| How close is the match between each ethnic group living with the disease and the ethnic groups living in the areas where the trial is to be run? | **Response:** The trial is being [led by](https://www.birmingham.ac.uk/research/bctu/trials/womens/WILL/WILL.aspx) Birmingham CTU and sponsored by King’s College London and Guy’s and St Thomas’ NHS Foundation Trust. The trial involves 19 NHS consultant-led birth units across England and Wales. These sites include hospitals across London, Leicester, Manchester, Birmingham, York, Liverpool, and Leeds. [London is the most ethnically diverse region](https://www.ethnicity-facts-figures.service.gov.uk/uk-population-by-ethnicity/national-and-regional-populations/regional-ethnic-diversity/latest#ethnic-groups-by-area), where 40.2% of residents identified belonged to either the Asian (18.5%), Black (13.3%), Mixed (5.0%), or Other (3.4%) ethnic group. The next most diverse region in England and Wales is the [West Midlands](https://www.ethnicity-facts-figures.service.gov.uk/uk-population-by-ethnicity/national-and-regional-populations/regional-ethnic-diversity/latest#ethnic-groups-by-area), the biggest city of which is Birmingham. The trial team have included a group of sites that should enable them to recruit an ethnically diverse sample. | |
| Other factors to consider: | | |
| **Cultural** | How might perceptions of the disease and social stigma around it be different for each ethnic group in the target population? | **Response:** We could not find any conclusive evidence around social stigma or perceptions around the disease in pregnant people, though there has been some research around how African American culture plays a part in the way that hypertension is dealt with by participants in the US.  A [qualitative study](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2694441/) described a circle as a metaphor for ties that bind individuals within larger African American communities, identifying three themes around hypertension as 1) health behaviours being ‘passed from generation to generation’, 2) a sense of ‘accountability’ to others within the culture to take lifestyle steps to improve their health, and 3) negative views taken toward people who are ‘acting different’ including eating differently or moving more, particularly among women.  Another [qualitative study](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7878318/) explored stigma as an influence on poorly controlled hypertension in Black women in the US. Younger participants were more vocal about stigma, whereas older participants did not view stigma as problematic. Five themes were generated from the data and included, 1) desire to ‘get control’, 2) shame and embarrassment, 3) obesity characterisations, 4) stereotype threats, and 5) disrupted normality. It is not clear whether these research findings are applicable to pregnant Black people in the UK where this trial is based.  In terms of trial participation, generally, trials are known to lack diversity – much of this may be down to lack of trust in the medical and research systems due to historical abuse and exploitation of Black and minority ethnic populations. | |
| How might ways of describing the disease be different for each ethnic group? | **Response:** Hypertension is often referred to in lay terms as high blood pressure. People across ethnic groups may refer to having ‘blood pressure’ without the distinction of high or low, and [conflation of ‘stress’ or ‘being worked up’](https://onlinelibrary.wiley.com/doi/pdf/10.1111/1467-9566.ep10837256) can be more readily understood and seen as separate from high blood pressure. | |
| How might cultural practices, beliefs and traditions influence the acceptability of, and adherence to, the treatment(s) for each ethnic group? | **Response:** The trial intervention is labour induction or elective Caesarean at 38 weeks. Participants in the control will receive expectant care at term until at least 40 weeks’ gestation, this will involve maternal and fetal surveillance and management as an integrated package of care based on current NICE guidelines, awaiting spontaneous labour or delivery indicated by clinical need.  In both intervention and control arms, participants have the potential to deliver their baby via Caesarean, it’s the matter of timing that is being investigated. If going into labour spontaneously is important to people giving birth or their families, the trial may not be a viable option for them. We have not found any evidence to suggest that this perspective is found more prevalently in one or other ethnic group. One thing that may play a part in the decision to take part in the trial is trust in the research and clinical teams that the participant is exposed to. [Black women have been historically abused and exploited by the medical profession](https://pubmed.ncbi.nlm.nih.gov/19175244/), particularly in the gynaecological field, and mistrust between Black women and researchers/medical professionals is understandably high. In the intervention arm of this trial, the participant will undergo planned early term delivery via labour induction of elective Caesarean; where trust is low, it is reasonable to believe that people giving birth will be less likely to trust medical professionals to induce delivery of their baby early. | |
| How or when might people in each ethnic group access healthcare for this disease differently? | **Response:** There are a number of factors that should be taken into account when it comes to how or when Black pregnant people in particular might access healthcare for hypertension treatment.  A [US study](https://www.ahajournals.org/doi/10.1161/HYPERTENSIONAHA.118.11064) suggests that Black patients are more likely to be aware they were hypertensive, more likely to be treated for hypertension, more likely to be treated more intensively, but less likely to have their blood pressure controlled. It is important to note that the study sample here were US-based and were not pregnant people, but it does suggest a cultural and/or familial awareness of hypertension risk. There is no evidence to suggest that this awareness would change in a pregnancy setting, a further [qualitative study](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2694441/) described a circle as a metaphor for ties that bind individuals within larger African American communities, identifying three themes around hypertension as 1) health behaviours being ‘passed from generation to generation’, 2) a sense of ‘accountability’ to others within the culture to take lifestyle steps to improve their health, and 3) negative views taken toward people who are ‘acting different’ including eating differently or moving more, particularly among women.  This awareness around hypertension risk should be balanced with the known and understandable mistrust between Black people and medical and healthcare professionals.  That said, [NHS staff are a more diverse group](https://www.ethnicity-facts-figures.service.gov.uk/workforce-and-business/workforce-diversity/nhs-workforce/latest) than the wider UK population – of NHS staff whose ethnicity is known, 79.2% are white (including white minorities), and 20.7% are from all other ethnic groups. This contrasts to the wider population – the [2011 Census](https://www.ethnicity-facts-figures.service.gov.uk/uk-population-by-ethnicity/national-and-regional-populations/population-of-england-and-wales/latest) showed that 86.0% of the population of England and Wales was white. If the staff conducting research visits with participants are of the same ethnicity, or share cultural references, this distrust may be reduced. | |
| Other factors to consider: | | |

**Worksheet 2**

This this worksheet provides some questions **to guide your thinking about ethnic group involvement when answering Question 3** of the INCLUDE Key Questions.

**Intervention and comparator factors that might affect how some groups engage with the intervention and/or comparator\***

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| **What** | How might the intervention(s) and comparator limit participation of people from each ethnic group in the target population? | **Response:** If going into labour spontaneously is important to people giving birth or their families, the trial may not be a viable option for them. We have not found any evidence to suggest that this perspective is found more prevalently in one or other ethnic group, but trust in researchers and medical professionals is likely to be a factor in decision-making. [Black women have been historically abused and exploited by the medical profession](https://pubmed.ncbi.nlm.nih.gov/19175244/), particularly in the gynaecological field, and mistrust between Black women and researchers/medical professionals is understandably high. In the intervention arm of this trial, the participant will undergo planned early term delivery via labour induction of elective Caesarean; where trust is low, it is reasonable to believe that pregnant people will be less likely to trust medical professionals to induce delivery of their baby early. |
| How, and in what way, were people from each ethnic group involved in selecting or designing the trial intervention/comparator? | **Response:** The protocol lists a member of the public as an independent member of the trial steering committee, but it is not clear what their ethnicity is or if or how this person was involved in selecting or designing the trial intervention/comparator. |
| Other factors to consider: | |
| **Who** | How might the person delivering the intervention/comparator limit participation of people from each ethnic group in the target population? | **Response:** It is not clear who will deliver the interventions/comparator, but it is likely that the participants will meet with a clinician or research midwife based at one of the 19 NHS maternity units that are listed as trial sites. As mentioned previously, Black and minority ethnic populations are known to distrust the medical and research systems due to historical abuse and exploitation, so it may be that engaging with research being conducted at an NHS site would limit participation.  That said, [NHS staff are a more diverse group](https://www.ethnicity-facts-figures.service.gov.uk/workforce-and-business/workforce-diversity/nhs-workforce/latest) than the wider UK population – of NHS staff whose ethnicity is known, 79.2% are white (including white minorities), and 20.7% are from all other ethnic groups. This contrasts to the wider population – the [2011 Census](https://www.ethnicity-facts-figures.service.gov.uk/uk-population-by-ethnicity/national-and-regional-populations/population-of-england-and-wales/latest) showed that 86.0% of the population of England and Wales was white. If the staff conducting research visits with participants are of the same ethnicity, or share a common language, this distrust may be reduced. |
| Other factors to consider: | |
| **How** | How might the mode of delivery (e.g. telephone, video-call, face-to-face, in groups) limit participation of people from each of the ethnic groups in the target population? | **Response:** As stated above, details of the intervention/comparator themselves are not described in-depth in the protocol so the mode of delivery of the intervention is not detailed, but it’s fair to assume that they will be delivered in a hospital setting. As mentioned previously, Black and minority ethnic populations are known to distrust the medical and research systems due to historical abuse and exploitation, so it may be that attending research visits at an NHS hospital site would limit participation. |
| Other factors to consider: | |
| **Where** | How might where the intervention/comparator is delivered (e.g. hospital, general practice, local library) limit the participation of people from each ethnic group in the target population? | **Response:** As above. |
| Other factors to consider: | |
| **When & Intensity** | How might when the intervention/comparator is delivered (e.g. during working hours) or the intensity (e.g. number of times it is delivered, over what period, time commitment for each session and overall) limit participation of people from each ethnic group in the target population? | **Response:** As above. |
| Other factors to consider: | |

\*These factors are taken from TIDieR ([http://www.equator-network.org/reporting-guidelines/tidier/](about:blank)).

**Worksheet 3a**

This worksheet provides some questions **to guide your thinking about ethnic group involvement when answering Question 4** of the INCLUDE Key Questions.

**Trial eligibility and participation factors that might affect how some groups engage with the trial**

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| **Eligibility** | How might eligibility criteria exclude members of each ethnic group in the target population for reasons other than their clinical eligibility for the trial (e.g. availability of medical history, must speak English, location, gender, age, discussing pregnancy, internet/mobile telephone access)? | **Response:** The eligibility criteria are clinically focussed and do not give cause for concern with regards to limiting participation of any ethnic groups. We discussed location in terms of trial sites earlier on, the trial sites selected are conducive to recruiting a diverse participant sample. It is not clear what sort of medical history information are taken from participants. The language used throughout the protocol and trial registration entry is gendered and focussed on mothers, inadvertently excluding trans, non-binary, and genderfluid people, though this does not disproportionately impact people from any specific ethnic group. |
| Other factors to consider: | |
| **Opportunity to participate** | How might the way(s) (and by whom) potential participants are made aware of the trial (e.g. posters in clinic, written letter from a doctor, asked by a nurse) limit the participation of each ethnic group in the target population? | **Response:** Research staff will be asked to screen clinic booking lists, medical assessment unit lists, and inpatient lists for women with chronic or gestational hypertension and liaise with their clinical colleagues to identify potentially eligible participants. Clinical staff with access to the clinical records will make the initial approach. Consent will be obtained by a GCP-trained midwife or medically qualified member of the obstetric team. As mentioned previously, Black and minority ethnic populations are known to distrust the medical and research systems due to historical abuse and exploitation, so it may be that being approached by a medical professional would limit participation. |
| How might the information that tells potential participants about the trial (e.g. participant information leaflet) limit the participation of each ethnic group? | **Response:** The protocol mentions that trial promotional materials (such as posters and pamphlets) will be available to sites to raise awareness of study, but no detail is given about the information that potential participants receive about trial.  As some ethnic groups including individuals for whom English may not be their first language are a key required group within the trial (e.g., South Asians, Indian subcontinent) then translation of written and oral material into some languages other than English is likely to be essential.  It is unclear if the written/verbal information has been developed together with people from a range of ethnic groups. |
| How might cultural practices, beliefs and traditions change the way each ethnic group perceives the information they are given? | **Response:** The protocol mentions that trial promotional materials (such as posters and pamphlets) will be available to sites to raise awareness of study, but no detail is given about the information that potential participants receive about trial. |
| Other factors to consider: | |
| **Consent procedures** | How might the way consent is sought (i.e. where, by whom, written vs verbal, verbal translations/multiple languages, access to interpreters) limit the participation of each ethnic group in the target population? | **Response:** The protocol details that consent will be obtained by a GCP-trained midwife or medically qualified member of the obstetric team, but no further information on the consent procedures are provided. As mentioned previously, Black and minority ethnic populations are known to distrust the medical and research systems due to historical abuse and exploitation, so it may be that being approached by a medical professional would limit participation. | |
| How might the way people would like to discuss participation with family before providing consent differ for each ethnic group? | **Response:** The protocol does not detail if/how people would like to discuss participation with family before providing consent for trial participation. As this trial involves pregnant people, their support system should be considered, whether than includes partner(s), the unborn baby’s other parent(s), or wider family. A [qualitative study](https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-015-0641-x) highlighted several themes that influence the pregnant person’s decision to participate in a trial, external influence was one of the main themes, but no evidence was presented to suggest that any specific ethnicity was more likely to listen to external influence (both positive and negative) than another. | |
| How might the way the research team can check how well consent information is understood differ for each ethnic group? | **Response:** The protocol does not detail if/how the research team will check how well consent information is understood. | |
| Other factors to consider: | | |

**Worksheet 3b**

This worksheet provides some questions **to guide your thinking about ethnic group involvement when answering Question 4** of the INCLUDE Key Questions.

**Trial data collection factors that might affect how some groups engage with the trial**

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| **What** | How, and in what way, were people from each ethnic group in the target population involved in selecting the trial outcomes? | **Response:** The protocol lists a member of the public as an independent member of the trial steering committee, but it is not clear what their ethnicity is or if or how this person was involved in selecting the trial outcomes.  The maternal co-primary outcome is listed on the trial registration entry as a composite of poor maternal outcome until primary hospital discharge or 28 days after birth (whichever is earlier), defined as 1) severe hypertension, 2) maternal death, or 3) maternal morbidity defined as any of the following: GCS<13; stroke; TIA; eclampsia; blindness; uncontrolled hypertension; inotropic support; pulmonary oedema; respiratory failure; SpO2 <90%; myocardial ischaemia or infarction; hepatic dysfunction, hepatic haematoma or rupture; acute kidney injury or dialysis; platelet count <50x109/L; transfusion; or placental abruption. The definitions in 3) were adapted from a Delphi consensus in hypertensive pregnancy, but it is not clear whether public participants from ethnic minority backgrounds contributed to this consensus process. |
| How might the trial outcomes themselves, or other data being collected (e.g. a patient’s background information) limit the participation of each ethnic group? | **Response:** There is no evidence to suggest that the specific outcomes being collected will limit participation of any specific ethnic group.  It is not clear what background information are collected from the patient. |
| Other factors to consider: | |
| **Who** | How might the people who collect data limit the participation of each ethnic group in the target population? | **Response:** It is not clear who the people collecting the data are – likely to be NHS staff or research staff. As mentioned previously, Black and minority ethnic populations are known to distrust the medical and research systems due to historical abuse and exploitation, so it may be that data collection by people working within these systems could limit participation. |
| Other factors to consider: | |
| **How** | How might data collection methods limit the participation of each ethnic group in the target population? | **Response:** Data are collected through a variety of methods; the woman’s medical notes and the neonatal notes being the primary method, along with two questionnaires. As mentioned previously, access to medical notes may be an uncomfortable scenario for people from ethnic minority participants due to mistrust.  A questionnaire assessing satisfaction with care will be self-administered and completed prior to hospital discharge where possible. Where this isn’t possible it will be self-administered at home, or administered by research staff either over the phone, or in-person at a routine postnatal medical appointment. The second questionnaire will be administered via text message or online through TextLocal, or by post or by phone if necessary.  If it’s possible for trial data collection processes to be complete within the hospital setting, that would always be preferable as it will avoid missing data that will likely happen once mother and baby are at home and settling into their new way of life. Due to increased risk of complications from hypertension during pregnancy in Black pregnant people, it’s feasible that these participants will spend longer in hospital which may increase the chances of complete data for them, though in the same vein, if they are dealing with complications and worrying health situation for mother and/or baby, questionnaire completion is likely to be bottom of their list of priorities.  The second questionnaire relies on participants having access to a mobile telephone or device with Wi-Fi, this may be an issue for participants experiencing socioeconomic disadvantage. Ethnic minority populations are known to be at higher risk of socioeconomic disadvantage, so the trial team should think about contributions to WiFi or mobile data costs. |
| Other factors to consider: | |
| **Where** | How might where data are collected limit the participation of each ethnic group in the target population? | **Response:** As above. |
| Other factors to consider: | |

**Worksheet 3c**

This worksheet provides some questions **to guide your thinking about ethnic group involvement when answering Question 4** of the INCLUDE Key Questions.

**Factors that might affect the planned analysis of trial results**

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| **Retention** | How might the trial data available for participants differ between each ethnic group in the target population? | **Response:** As detailed on worksheet 3b, data are collected through a variety of methods; the woman’s medical notes and the neonatal notes being the primary method, along with two questionnaires. A questionnaire assessing satisfaction with care will be self-administered and completed prior to hospital discharge where possible. Where this isn’t possible it will be self-administered at home, or administered by research staff either over the phone, or in-person at a routine postnatal medical appointment. The second questionnaire will be administered via text message or online through TextLocal, or by post or by phone if necessary.  If it’s possible for trial data collection processes to be complete within the hospital setting, that would always be preferable as it will avoid missing data that will likely happen once mother and baby are at home and settling into their new way of life. Due to increased risk of complications from hypertension during pregnancy in Black pregnant people, it’s feasible that these participants will spend longer in hospital which may increase the chances of complete data for them, though in the same vein, if they are dealing with complications and worrying health situation for mother and/or baby, questionnaire completion is likely to be bottom of their list of priorities.  The second questionnaire relies on participants having access to a mobile telephone or device with WiFi, this may be an issue for participants experiencing socioeconomic disadvantage. Ethnic minority populations are known to be at higher risk of socioeconomic disadvantage, so the trial team should think about contributions to WiFi or mobile data costs. |
| Other factors to consider: | |
| **Benefits** | How might the benefits of the trial intervention(s) differ between each ethnic group in the target population? | **Response:** The reasons behind the increased prevalence of hypertension in Black pregnant people, and pregnant people with Indian, Pakistani, and Bangladeshi heritage are not clear, they could be genetic, social, and/or cultural. It’s not clear whether the intervention may have different impacts on these populations. |
| Other factors to consider: | |
| **Harms** | How might the possible harms of the trial intervention(s) differ between each ethnic group in the target population? | **Response:** As above. |
| Other factors to consider: | |
| **Subgroup analyses** | How should variation between ethnic groups in the target population be explored– should there be planned subgroup analyses? | **Response:** An exploration of benefits and harms by ethnic group should be pre-planned, especially given the disproportionate effects of hypertension on pregnant Black pregnant people, and pregnant people with Indian, Pakistani, and Bangladeshi heritage heritage.  The need for this pre-planned subgroup analysis suggests that over-sampling by ethnicity might be useful. This is unlikely to affect the applicability of the evidence to the majority population but will improve the certainty of conclusions coming from the subgroup analysis. The overall sample size does not need to be changed and it is unlikely to be feasible to fully power any subgroup analyses. |
| Other factors to consider: | |
| **Interim analyses** | How should any interim analysis handle variation between ethnic groups in the target population? | **Response:** Any planned interim analysis should look for signals suggesting that benefits or harms were importantly different in one or more ethnic groups. The certainty available for this will be less than for the majority population, although oversampling may help. |
| Other factors to consider: | |
| **Stopping triggers** | How should any rules to stop the trial early on safety or benefit grounds handle variation between ethnic groups in the target population? | **Response:** Any stopping rules should consider the benefits or harms overall and by ethnic groups. The certainty available for this will be less than for the majority population, although oversampling may help. |
| Other factors to consider: | |

**Worksheet 3d**

This this worksheet provides some questions **to guide your thinking about ethnic group involvement when answering Question 4** of the INCLUDE Key Questions.

**Factors that might affect the planned reporting and dissemination of trial results**

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| **What** | How, and in what way, were people from each ethnic group in the target population involved in planning the reporting and dissemination of the trial results? | **Response:** The protocol lists a member of the public as an independent member of the trial steering committee, but it is not clear what their ethnicity is or if or how this person will be involved in planning the reporting and dissemination of the trial results. |
| Other factors to consider: | |
| **How** | How might planned reporting and dissemination methods limit engagement with each ethnic group in the target population? | **Response:** The protocol details scientific publication(s) in peer reviewed journals, which limits engagement with all ethnic groups.  Using publications as dissemination is not conducive to engaging any ethnic group, or member of the public with the results of this trial. At the very least the publication(s) that come from this trial should be open access.  Dissemination materials intended for the public should consider the health beliefs, health literacy and languages of the ethnic groups in the community and use channels appropriate for the ethnic group. For example, community radio can be a useful tool for some ethnic groups, as can social media.  The protocol does mention that trial participants will be able to access the results of the trial via the trial website, though there is no mention of the methods that may be used to notify trial participants of this, or the way that results will be presented or shared. |
| Other factors to consider: | |
| **Where** | How might where trial results are planned to be reported and disseminated limit engagement of each ethnic group in the target population? | **Response:** The protocol details scientific publication(s) in peer reviewed journals, which limits engagement with all ethnic groups.  Using publications as dissemination is not conducive to engaging any ethnic group, or member of the public with the results of this trial. At the very least the publication(s) that come from this trial should be open access.  Dissemination materials intended for the public should consider the health beliefs, health literacy and languages of the ethnic groups in the community and use channels appropriate for the ethnic group. For example, community radio can be a useful tool for some ethnic groups, as can social media.  The protocol does mention that trial participants will be able to access the results of the trial via the trial website, though there is no mention to the methods that may be used to notify trial participants of this, or the way that results will be presented. |
| Other factors to consider: | |

Worksheet for thinking through measures to address factors that might prevent full community involvement

Use this worksheet to list key factors that might affect the involvement of some ethnic groups in the target population of your trial, along with measures to mitigate the effect of those factors and their cost. Add extra rows as needed.

Please remember that there are also differences *within* ethnic groups, especially between generations and between genders. No ethnic group is homogenous.

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| **Factors that may prevent full community involvement** | **Proposed measures (several options may be needed)\*** | **Cost of measures** |
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\*See https://centreforbmehealth.org.uk/resources/toolkits/ for suggestions for how to address factors that affect community-wide involvement.

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