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**FULL TITLE OF THE STUDY:** Improving uptake, experience and implementation of interpreting services in primary care: a mixed methods study with South Asian communities in England

**SHORT STUDY TITLE / ACRONYM**
Patient experience of interpreter services (INTERPRET-X)

**PROTOCOL VERSION NUMBER AND DATE** v1.2 11/04/2024

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## Contents

## 1. Full title of project

Improving uptake, experience and implementation of interpreting services in primary care: a mixed methods study with South Asian communities in England.

### 1.1 Short study title/ acronym

Patient experience of interpreter services (INTERPRET-X)

## 2. Summary of research (scientific)

**Research question:** What influences uptake, experience and implementation of interpreting services in primary care?

**Background:** Uptake of interpreting services in primary care is fundamental to ensure patients and clinicians understand each other and to avoid exacerbating inequalities in healthcare access. There is currently no up-to-date evidence on language support uptake or experience in this context.

**Overall aim:** To develop a comprehensive understanding of uptake, experience and implementation of interpreting services in primary care in England.

**Aims/objectives/ methods for each work package:**

***Work package 1*** (National interview survey and qualitative interviews to understand patient experience and uptake).

Aim: To understand the current uptake and experience of interpreting services among South Asian linguistic minority groups in England. We focus on people from Pakistani, Indian and Bangladeshi backgrounds due to higher healthcare need (exacerbated by COVID) and because their languages combined are the UK's most commonly spoken languages after English.

Objectives:
- What are the barriers and facilitators to uptake?
- How do users of the services describe their experiences of different types of language support (e.g. face-to-face, remote, informal)? How do non-users access primary care/ experience language support?
- What is the association between uptake of interpreting services and healthcare access, patient satisfaction, patient characteristics and self-reported health?

Methods:
Community-based national interview survey (n=600) and qualitative interviews (n=30).

***Work package 2*** (GP case studies, stakeholder qualitative interviews and document gathering to understand implementation of services).

Aim: To investigate how interpreting services are currently delivered/implemented in primary care.

Objectives:
- How do front-line staff experience the use and delivery of interpreting services in primary care?
- What barriers and facilitators are encountered in the implementation of interpreting services in primary care, and how are these shaped by the local context?

- How do commissioners and policy-makers plan the delivery of these services (including planning for their cost)?

Methods:
Comparative case studies with GP practices (n=4), qualitative interviews with frontline staff (n=20), interpreters (n=12), providers of interpreting services (n=5) and commissioners/ policy-makers (n=15-20) and document gathering.

***Work package 3*** (Pathways to impact: stakeholder engagement and policy workshop to finalise and disseminate guidance).

Aim: To work with commissioners, policy-makers and government (via a cross-party think tank, Policy Connect), to finalise/disseminate guidance for multiple stakeholders that will improve use of interpreting services in primary care.

Objectives:
- What aspects of the planning and delivery of interpreting services do policy-makers/ commissioners think are working well?
- What areas need to be improved? (e.g. suggestions for a minimum dataset to support benchmarking and quality improvement).

Methods: Integration of findings from work packages 1 and 2 and policy workshop.

Timelines for project delivery: 24 months.

Impact and dissemination: This study will result in updated guidance for commissioners, frontline staff and interpreters, as well as influence patient education and policy to improve patient uptake and experience of interpreting services in primary care and, ultimately, patient outcomes.

## Plain English Summary

AIM: To work with South Asian communities, healthcare professionals and people working in the NHS to understand how interpreting services work for patients with limited English language skills in GP practices in England to improve access to quality healthcare for all.

BACKGROUND: The UK has a growing and ageing population of people for whom English is not their first language. Interpreters provide a service for patients and doctors to help them understand each other when they do not speak the same language. This is to make sure that people who find it difficult to communicate with a doctor because of a language barrier have no disadvantages compared with people for whom communication is easier. Unfortunately, there is evidence that not speaking English well is related to worse patient outcomes. GPs are often the first point of contact when people have a healthcare need. This means that good interpreting services are key to making sure everyone gets the same level of care. Yet, these services are under-used, and it is not clear why. We will seek to understand the experiences of people from Pakistani, Indian and Bangladeshi backgrounds because their languages combined are the UK's most commonly spoken languages after English and because of higher healthcare needs.

DESIGN AND METHODS: We will use a number of different ways to develop a clearer picture about interpreting services in GP practices. We will understand whether people can access interpreting services at their GP practice, how they experience interpreting services and how interpreting services work (or not) for them. There are three linked work packages (WPs):

WP1 (Public survey and qualitative interviews) aims to understand uptake and experience of interpreting services in South Asian groups in England. For example, how do patients from these groups get access to interpreting services? How do they describe their experiences of these services? We will conduct a large-scale survey across England (N=600) to find out what makes it more likely (or not) that someone uses an interpreting service. We will also interview 30 patients (who have/ have not used interpreting services) in more depth about their experiences.

WP2 (GP case studies, qualitative interviews/document gathering) aims to investigate how interpreting services are delivered in GP practices. For example, how do GPs/ receptionists find using these services? We will work closely with four GP practices and gather views from the people who work there (e.g. GPs/receptionists), from interpreters and providers of interpreting services, and from those involved in organising services (e.g. people in the NHS who decide how services will run). Our work will involve gathering information (e.g. documents/guidance) to understand how interpreting services work in GP practices as well as interviewing people (N~60 in total) about their experiences.

WP3 (Combination of WP1 and WP2 and a policy workshop) aims to work with NHS England to develop and share updated guidance about delivery of interpreting services in primary care.

PATIENT AND PUBLIC INVOLVEMENT: Recognising the importance of involving users of language support services in this research we have embedded public involvement in developing this proposal. A PPI co-applicant/lead (patient, carer and Bengali interpreter) is the key point of contact for our patients/public members.

DISSEMINATION: We will engage with people who decide how interpreting services are run, as well as people in government to disseminate guidance about how to improve access to and quality of interpreting services in GP practices in England.

## 3. Background and rationale

Issues concerning improving uptake, experience and implementation of interpreting services in primary care are not well understood, and there is a strong need to improve services at a national level. Uptake of interpreting services in primary care is fundamental to ensure patients, carers and clinicians understand each other and to avoid exacerbating inequalities in healthcare access and outcomes, yet professional interpreters are under-used in relation to the need for them (1). Interpreting services are particularly important in primary care because it is the main source of healthcare in the UK National Health Service (NHS); over 99% of people in the UK are registered with a General Practitioner (GP)(2).

However, there is a dearth of evidence around experience and use of interpreting services, particularly in primary care settings, or research focused on patient experiences. To check and fully explore the evidence, we undertook a scoping literature review in preparation for this research proposal. Two international systematic reviews highlighted the importance of providing access to professional interpreters because it increases patient satisfaction and comprehension with fewer errors of potential clinical consequence (3,4) (for example, compared with family members providing translation). However, most studies included in these reviews were conducted in the US where differences in healthcare systems make drawing comparisons challenging.

We also did not identify any studies that consider patient and system level data about access and implementation of interpreting services in primary care and there are no current studies on this topic in the NIHR funding awards database. New evidence is required to understand the potential impact of these services on reducing inequality in primary healthcare access and is more important than ever, given the amplification of inequalities during the Covid-19 pandemic (5,6).

## Building on our pilot research

To test the feasibility/acceptability of our study we conducted a pilot that i) confirmed that our study was feasible and acceptable, and ii) allowed us to engage with stakeholders and seek their input; this pilot shaped the further development of the proposal and facilitated patient and public involvement (PPI). We have focused on South Asian (Pakistani, Bangladeshi, Indian) communities due to higher healthcare need (exacerbated by COVID) and because South Asian languages combined (Punjabi, Urdu, Bengali, Gujrati and Hindi) are the most commonly spoken languages in the UK after English (7). In partnership with Agroni, a multi-disciplinary research organisation with specialist experience of working with South Asian communities, we developed and piloted a questionnaire that was translated into the languages above. The questionnaire asked about experiences of face-to-face and remote (e.g. telephone, video) interpreting. We found that it was well received and feasible to complete in multiple languages. Of the 105 participants with low English proficiency (defined as not being able to speak English well or at all) completing the survey; nearly 63% had used an interpreting service in primary care. People reported difficulty requesting language support (28%), worried about putting strain on the NHS by requesting it (27%) and lacked confidence in discussing health concerns using face-to-face interpreting (20%) or telephone interpreting services (19%). Use of video interpreting and translation apps were rare (<5% and <3% respectively). Additional PPI work (n=18 interviews) revealed uncertainty about using formal interpreting services, with interviewees preferring to rely on family and friends.

## Rationale

The UK is a multi-ethnic, linguistically diverse country, with 8% speaking a main language other than English (7). In 2011 (the latest census data available), the number of people in England and Wales who did not speak English well or at all and likely to need interpreting services in primary care was nearly 900,000. In some GP practices in the UK, approximately 30% of patients require language support and (now outdated) data from 2009 suggested that more than 2.5 million GP consultations per year were with patients where language support was required (8). Need is likely to have risen further, given current increases in net migration according to 2018 projections by the Office for National Statistics (9). Digitalisation of primary care during the pandemic has highlighted additional challenges in addressing language barriers using remote language support (10), making this research even more necessary.

English proficiency has been shown to relate to socioeconomic position (11), social segregation, employment opportunities and access to healthcare (12). These inequalities are likely to increase risk of poor health, as 35% of people with non-proficient use of English report their health as ‘not good’ compared with 12% of people with proficient use of English (7). Consequently, the healthcare needs of people without proficient English are likely to be much greater. There are several stages where access to healthcare may be challenging, particularly for vulnerable groups (13). For example, people who do not speak English well report greater barriers to accessing primary care than those who do (14), and this can prolong decisions to seek help (15) and is associated with poor patient experience (16). While some studies have failed to account for language as an explanation for differences in patient experiences (17), other work has emphasised its role, demonstrating that South Asian patients’ poorer experience of doctor communication was largely explained by language differences (18) and that linguistic minorities report the worst care of all ethnic minorities (19).

South Asian communities are at particular risk. For example, medication adherence has been shown to be lower in South Asian people with limited English proficiency (20) and illiteracy has been associated with poor glycaemic control in Pakistani women (21). This may interact with increased risk of long-term conditions for specific groups. For example, compared with UK White people, UK South Asian people are at four to five times greater risk of type 2 diabetes (T2DM) (22), which can have a particularly complicated self-management regime and requires a high level of comprehension of complex lifestyle and medical information. Language or communication difficulties therefore may lead to inequalities across the care pathway. Therefore, improving access to and uptake of interpreting services in primary care has the potential to reduce health inequalities.

The importance of health service accessibility was underscored in a Public Health England report (23) on how to reduce health inequalities and improve population outcomes. It highlighted the need for improved access to interpreting services to ensure healthcare services are accessible to all. Despite guidance for commissioning interpreting and translation services in healthcare (written by one of our advisory group members (24)), we are not aware of evidence on the uptake and implementation of interpreting services at a national level. Such evidence would be critical to inform future guidance and policy (25). Preliminary evidence also suggests that Clinical Commissioning Groups in England do not routinely record data on the cost of interpreting services (26).

In addition to increased risk of long-term conditions among certain minority ethnic groups (27), COVID-19 has further highlighted the UK's ethnic inequalities in health (28), as well as drawing attention to the structural inequalities within the healthcare system and broader society (5). Cumulatively, this evidence indicates that, despite having potentially greater healthcare needs, people from ethnic and linguistic minorities are likely to be at significant disadvantage if access to and performance of interpreting services is suboptimal in their interaction with healthcare services. The rapid adoption of remote consulting (29) is also likely to impact on the use/experience of interpreting services (10). These experiences need to be understood to avoid further exacerbation of inequalities. Interpreting experiences/use in primary care are currently not routinely captured anywhere in a way to inform future use or improvement of services.

To summarise, evidence in this area is severely lacking. While there have been some local initiatives, there have been no large-scale studies providing a clear picture of interpreting services in primary care. The boroughs of Lambeth, Southwark and Lewisham conducted a review of their service and found that there was low public awareness of interpreting services and GPs perceived difficulty in accessing services (30), but reasons for this were unclear. We intend to conduct the first large-scale study of: interpreting service uptake in England; patient experience; and interpreting and translation service implementation in primary care. Our study will produce generalisable findings that can be used to improve services in England and other UK nations.

## 3a. Evidence explaining why this research is needed now

Our commentary (31) has highlighted the need for research in this area. Worryingly, our pilot study found that almost half of participants reported using informal interpreting (i.e. family/ friends). Informal interpreting is associated with a greater number of errors than professional interpreting, lower physician and patient satisfaction and raises ethical and confidentiality concerns (32,33).

Our unpublished findings with healthcare professionals during the COVID-19 pandemic (as part of a Health Foundation project on inequalities in the bowel cancer pathway) show that this current problem may be further exacerbated by the COVID pandemic: *"Our hospital policy is we don't use family, we should use hospital translators, but because of the pandemic we*

*had to, you know, kind of compromise and not do that because we needed to communicate with the patient."* (Specialist Screening Practitioner, SSP). SSPs are involved in organising and conducting follow up screening and endoscopy investigations for people with suspected bowel cancer.
Another SSP raised concern about aspects of remote interpreting services, such as loss of the human element: *"Although we could use the interpreter service via the telephone, again, you lose that aspect of the person actually, that physical aspect of being able to see the person has understood what has been put to them through the interpreter. Because at least when you can see somebody and they're smiling, you can see it in their face that they do understand what you've said or what has been interpreted to them."* There is general concern that the rapid adoption of remote technology due to the pandemic will exacerbate inequalities in care, particularly in primary care which has seen a huge increase in remote appointments (34).

In response to our commentary (31), we have received emails from GPs thanking us *"for your timely editorial on interpreting services in General Practice"* (anonymous GP, London, email dated 05/01/2022) and highlighting concerns about access for patients with limited English proficiency: *"Unfortunately in mainstream primary care it's easy to see how patients who don't speak English would really struggle to access services properly"* (anonymous GP, Leeds, email dated 07/01/2022). This further demonstrates the timeliness of our proposal, engagement from professionals, and urgent need for this research.

## Aims and objectives

Aim: To develop a comprehensive understanding of uptake, experience and implementation of interpreting services in primary care in England.

### Work package aims/ research questions

**Work package 1: PATIENT UPTAKE AND EXPERIENCE**: To understand the current uptake and experience of interpreting services among South Asian linguistic minority groups in England.
a. What are the barriers and facilitators to uptake?
b. How do users of the services describe their experiences of different types of language support (e.g. face-to-face, telephone, video, informal)? How do non-users access primary care/ experience language support?
c. What is the association between uptake of interpreting services and healthcare access, patient satisfaction, patient characteristics and self-reported health?

**Work package 2: IMPLEMENTATION**: To investigate how interpreting services are currently delivered/implemented in primary care.
a. How do front-line staff experience the use and delivery of interpreting services in primary care?
b. What barriers and facilitators are encountered in the implementation of interpreting services in primary care, and how are these are shaped by the local context?
c. What aspects of the planning and delivery of interpreting services do policy makers/ commissioners think are working well?

**Work package 3: PATHWAYS TO IMPACT**: To work with NHS England/ commissioners to generate and disseminate updated guidance that will improve use of interpreting services in primary care.
a. How do commissioners and policy makers plan the delivery of these services? (including planning for their cost).
b. What areas need to be improved? (e.g. suggestions for a minimum dataset to support benchmarking and quality improvement).

## 4. Research plan/ methods

### Design and theoretical/ conceptual framework

Design: Mixed-methods study (including interview survey, qualitative interviews and case studies) with three linked work packages (WPs), which will address each objective in turn. The workflow is explained in the flow chart attached. These work packages are underpinned by the Consolidated Framework for Implementation Research (CFIR; 35) (see Table 1). The advantages of using the CFIR are: (1) the use of a common language across implementation research for determinants of effectiveness, (2) a standardised list of constructs to guide and structure research, and (3) flexibility in its use at all stages of implementation (pre-, during, post-).

The CFIR includes five main constructs:

1. Intervention characteristics (e.g. evidence strength and quality, complexity and cost)
2. Outer setting (e.g. patient needs and resources, external policy and incentives)
3. Inner setting (e.g. structural characteristics, implementation climate, readiness for implementation)
4. Characteristics of individuals (e.g. knowledge and beliefs about the intervention, self-efficacy)
5. Process (e.g. planning, reflecting and evaluating).

Within these five main constructs, the framework includes 36 sub-constructs. The aim of the study is to investigate interpreting service use and delivery, and we will use the CFIR to orient our research to relevant and influential factors, rather than being rigidly committed to every sub-construct of the framework. The CFIR has been used in many studies of this type, such as looking at access to, and uptake of, HPV vaccination (36), including research by the study team (37,38) demonstrating our existing expertise in applying implementation frameworks in healthcare research. Table 1 illustrates how the broad domains of the framework are being used throughout the WPs to guide data collection and create linkages between them.

*Table 1 - Illustration of how CFIR constructs are being applied to the work packages to understand uptake, experience and implementation of interpreting services in primary care in England*

| Work packages | CFIR domains | | | | |
|---|---|---|---|---|---|
| | Intervention characteristics | Outer setting | Inner setting | Characteristics of individuals | Process |
| WP1: Patient uptake and experience | Understanding availability of different components of interpreting services across England | Understanding patient needs | | Understanding patients' knowledge and beliefs about interpreting, and other personal attributes that influence uptake | Understanding how different sociodemographic groups are being engaged in interpreting services |
| WP2: Implementation | Understanding how interpreting services are developed and adapted | Understanding external policy and incentives | Determine the networks linked to interpreting services (e.g. primary care, commissioning, community groups), culture in primary care, nature of interpreting use | Understanding primary care staff and interpreters' experiences and beliefs about service implementation | Identifying individuals within the case study sites who are champions or leaders for interpreting services and gathering data on their experiences |
| WP3: Pathways to impact | Producing indicators of quality and design for interpreting services | Working with policy stakeholders to produce strategies to incentivise high quality interpreting services | | | Engaging and identifying stakeholders who will lead quality improvement and development of interpreting services |

## WP 1 PATIENT UPTAKE AND EXPERIENCE (Months 1-18; Lead: Whitaker)

Objective: To understand the current uptake and experiences of interpreting services among South Asian linguistic minority groups in England.

Design: Community-based interview survey and qualitative interviews.

### Survey in South Asian communities

The primary aim of the survey is to understand barriers and facilitators to uptake of interpreting services. The secondary aim is to understand how interpreting service uptake is associated with socio-demographics, healthcare access, patient satisfaction and self-reported health.

### Sampling

Participants from Pakistani, Bangladeshi and Indian groups (age 18+) years) will be recruited by Agroni following the process we developed in the pilot work. Agroni will use a quota approach by selecting sampling points across England, including London, the Midlands (Birmingham, Leicester, Coventry) and the North (Bradford, Leeds, Oldham). They will recruit equal numbers of men and women across South Asian subgroups (recognising considerable heterogeneity across subgroups), representing a range of ages. Multilingual researchers from the respective communities will contact potential participants within each sampling point, as well as utilise community networks to access respondents, such as community centres, libraries and places of worship. The survey will be conducted as an interview, based on the need to translate into multiple languages.

### Pilot work

For the pilot, trained multilingual researchers, external to the study team, recruited people who were likely to have low English proficiency. They took a variety of approaches, including using their existing community connections, workplaces and other public places to ensure a range of demographic characteristics were represented. A screening item was used to ensure that all those recruited to the study did not speak English well or at all. It is important to note that this means the intention is not to find a representative sample of people living in the UK who are from Indian, Pakistani or Bangladeshi backgrounds, but to specifically sample people from these backgrounds where limited English proficiency means that uptake/experience of interpreting services is relevant.

To demonstrate that this approach resulted in a range of socio-demographic characteristics, we report some of the pilot data here. The pilot sample (all of whom reported low or no English language proficiency) included an even spread of people from Indian (n=35), Bangladeshi (n=35) or Pakistani (n=35) ethnic backgrounds with a range of ages from 18-79 years. Of the sample, 51% were women (n=54), 79% were married or cohabiting (n=83), 16% had no formal education (n=17), 30% had primary school education (n=31); 31% had secondary school education (n=33), 12% had college or sixth form education (n=13) and 3% had university education (n=3). The most commonly spoken language was Punjabi (40%) followed by Bengali (33%) and the most common religion was Muslim (68%). Almost all the participants were born outside of the UK (98%) and had lived in the UK from 1- 35 years (M=6.14; SD= 5.46). People reported a range of comorbidities, the most common physical health condition was diabetes (26%) followed by high cholesterol (26%) and the least common were kidney problems and stroke (both 1%) followed by heart problems (3%). Approximately 8% of the sample reported experiencing depression or anxiety

### Questionnaire/ analysis

The CFIR informs the survey phase of the proposal in terms of understanding the outer setting (e.g. patient's needs), characteristics of individuals (e.g. knowledge) and process, in terms of how different sociodemographic groups are engaged with interpreting services (Table 1). In addition to demographic questions, participants will be asked questions developed during our pilot work. For example, use of/ access to language support (including formal services such as face-to-face, telephone, video, as well as informal interpreting use and use of translation apps instead of interpreters), availability of language support, current illnesses/long-term conditions, frequency of GP practice visits, patient satisfaction and self-rated health. The main analyses of the Study 1 data will use multiple regression to examine the relationship between use of interpreting services and barriers and facilitators to uptake and consider these according to the three South Asian subgroups. Secondary analyses will explore the relationship between use of interpreting services and frequency of healthcare access, patient satisfaction, patient characteristics and self-rated health. Specific hypotheses include:

-Socio-demographic variables such as age, sex, language, education, and migration status will be associated with interpreting service uptake in primary care;
-Reporting a higher number of barriers (e.g. related to accessibility, confidence) will be associated with lower interpreting service uptake in primary care;
-Lower uptake of formal interpreting services will be associated with less frequent healthcare access, lower patient satisfaction and lower self-rated health.

We will provide descriptive statistics on; study participants; primary outcomes measures (e.g. formal interpreting service uptake) and secondary outcome measures (e.g. patient satisfaction, self-rated health). To investigate the effect of socio-demographic (e.g. age, sex, language, education, migration status) and psycho-social factors (e.g. availability, awareness, confidence) on use of language support we will run unadjusted and adjusted regression models, with estimates reported as unadjusted and adjusted odds ratios (ORs) alongside 95% confidence intervals (CIs). Secondary analyses will explore the relationship between uptake of formal interpreting services and frequency of healthcare access, patient satisfaction and self-rated health. We will include analyses of missing data and validation of measures (e.g. internal consistency of unvalidated measures will be assessed using Cronbach’s alpha and principal components to determine factor loadings). We will draft a complete statistical analysis plan (SAP) for consideration at the advisory groups/ steering committees.

We will aim to recruit approximately n=200 in each South Asian subgroup (n=600) based on the assumption that a multivariable logistic regression model is likely to be reliable when a minimum of 20 events per variable (EPV) are used (39). Our pilot work suggests an uptake rate of interpreting services ~63%, thus if EPV <20, penalised regressions will be used to reduce bias in parameter estimates (40). Measures/recruitment approaches used in WP1 will inform the development of WP2, for example, the design of the topic guide for healthcare professionals and the choice of recruitment sites.

## Qualitative interviews

Qualitative interviews will be conducted with a sub-sample of participants (n=30) taking part in the survey to understand their experiences in more depth. We will use the candidacy framework, that describes how people assess their eligibility for accessing health services and how they legitimise their interaction and engagement with services (13), to underpin the research. This framework is useful to understand how people experience healthcare, and the impact of using professional interpreting services on this experience.

### Sampling/procedure

Trained multilingual researchers will conduct interviews with people in the language of their choice (in our pilot work this included Punjabi, Urdu, Bengali/Sylheti, Gujrati and Hindi). For the qualitative sampling we will purposively recruit people from the survey participants who have accessed interpreting services (n=15), as well as people who have not (n=15). Individuals will be invited to take part in a subsequent in-depth telephone interview. Separate information/ consent will be sought for this aspect of the project. The sampling approach for the interview phase will also aim to provide a balance across socio-demographic characteristics (e.g. ethnicity, age, gender). This detail is now included in the updated detailed research plan..We have developed and piloted an interview topic guide as part of our pilot work. Interviews will focus on people's experiences of accessing primary care using professional interpreting services (including in person/ telephone/ remote), as well as informal interpreting, translation apps or no language support. We will use a specialist transcription company, K International, to transcribe the interview into English for analysis purposes. We have piloted this approach (in preparation for this application) by fully transcribing an interview in the source language (Punjabi) transcribing/ translating it into English, and have also set up K International as an approved university supplier as part of this process.

## Analysis

Our raw data consists of transcribed and translated interview recordings. Translations will be performed by K International. The Postdoctoral Research Fellow (QMUL) will be the lead researcher on this analysis, supported primarily by G Black, C Vindrola and K Whitaker. We will use the Framework method (41) to analyse the interview data, frequently used in policy research, following five key stages, namely: 1. Immersion – the researchers will make detailed notes to summarise the key points of interviews as part of the data immersion process. Regular qualitative team meetings will be used to discuss impressions and interpretations and relate them to the research aims and objectives. 2. Developing the theoretical framework – the main ideas that are noted in stage 1 will be organised into a conceptual framework with reference to the CFIR domains. A key part of this stage is to visualise all the ideas and notes that have emerged during discussions and summaries so far. 3. Indexing – each interview is re-read. Portions of the text and any notes/annotations are copied into the relevant codes within the theoretical framework. We will use MS Excel or similar for this. 4. Charting – data are summarised according to the theoretical framework to get the 'gist' of all the key ideas within each code/idea. It is important at this stage that all the data can be visualised as a whole (e.g. on 1-2 printed sheets of A3 paper). 5. Synthesising the data – this stage involves considering the whole dataset with a number of aims. First, to make any last changes to the codes within the theoretical framework e.g. merging/dividing or re-naming. Second, to develop narrative summaries (or themes) from the codes that explain the results in relation to the research aims/objectives. The whole research team will engage in this part of the process. These narrative summaries will form the basis of academic papers and other outputs. We will apply this method to understand both the experiences of people accessing interpreting services and those that do not. The framework codes/categories will be developed iteratively using principles of inductive and deductive analysis (42), including relevant sub-constructs from the CFIR framework. This may include, for example, patient needs and resources, culture, knowledge and beliefs about the intervention.

## Role of Agroni

Ensuring diversity in research necessitates working in new and different ways and with different stakeholders than previously may have been the case. Agroni is an independent and multi-disciplinary research organisation, established in 2000. Agroni specialises in reaching and engaging with Britain's Black, Asian and Minority Ethnic communities. They have a pool of over 300 qualified multilingual researchers across the UK who have extensive local, cultural and religious knowledge and collectively speak approximately thirteen community languages. Past clients include government departments (e.g. Department of Work and Pensions, Department of Trade and Industry), charities (e.g. Cancer Research UK, British Heart Foundation) and universities (University of Manchester, Kings College London). Their role will be to recruit and survey the 600 participants in WP1, as well as conduct qualitative interviews with a subsample of 30 participants. We have developed a successful partnership with Agroni that has been demonstrated to be effective and efficient. In the pilot work, Agroni successfully surveyed 115 participants nationally (inclusive of 10 cognitive interviews) in approximately six weeks and completed 18 interviews over a two-month period. We have used this timeframe to ensure delivery/ upscaling is feasible in this project. In terms of governance, Agroni are an existing University of Surrey supplier and we have previously set up a subcontract between Agroni and the University of Surrey, which we can use as a model for the next phase of the research.

## WP 2 IMPLEMENTATION (Months 1-24; Co-leads: GB, CV)

**Objective:** To investigate how interpreting services are commissioned and delivered in primary care.

**Design:** Comparative case studies, qualitative interviews and document gathering

### Sampling:

We will purposively select four primary care sites representing a range of population and practice characteristics. Our site recruitment will be informed by: i) uptake and experience data from WP1 and our pilot work; ii) clinical research network advice about feasibility of access and engagement levels with practices; and iii) existing networks and information held by our advisory and steering group members. We anticipate that these sites will be in geographical areas such as London, Kent, Surrey and Sussex, Leicestershire and South Yorkshire, due to our strong collaborative networks in these areas. Use of interpreting services is highly variable, and we wish to use quota sampling methods to identify four practices that differ in terms of, i) languages spoken, ii) local level of deprivation, iii) uptake of interpreting services, iv) ethnic density of local practice population and v) size of practice. We will ensure we include at least one practice known for effective implementation of interpreting services and high levels of patient satisfaction to consider positive deviance. We will also consider language concordance with healthcare professionals, as we found in our PPI work that people often relied on healthcare professionals who spoke their language/dialect.

### GP practice case study observations

We will work with NIHR Clinical Research Networks and Primary Care Networks to identify general practices with relevant and divergent interpreting service models. By using this approach, we will be able to capture challenges of implementation both from the patient survey, and from looking at everyday practice. Patient and staff interviews, including observations will capture the complexity of delivering/implementing interpreting services, in line with updated Medical Research Council guidance for evaluating complex interventions (2021).

In developing the Stage 2 application we have secured support from clinical research networks (CRNs) and GPs on our advisory board who will assist with practice recruitment (see attached letters of support). For example, a preliminary look at CRN primary care data in North West London showed that there are 66,920 (~2.5%) patients currently registered with a North West London GP who have 'Interpreter Needed' indicated in their record (likely an underestimation as this information is not always recorded). Worryingly, interpreter service use (both in person and remote) seems to have reduced in this region over the past three years (with 3246 in person and 792 telephone interpreted consultations recorded in 2018, compared with 1024 in person and 358 telephone interpreted consultations in 2021; *data provided by email communication with the CRN, 06/01/2022*).

We will work with primary care sites to understand their interpreting services, and to determine the key events that the researcher(s) should observe in relation to interpreting services. Researchers will spend 1-2 days at each case study site to gather data in relation to the following:

- Planning and booking of interpreters
- Activities pre- and post-consultation and capturing use of technologies, including technologies used to access interpreters and technologies used instead of interpreters (e.g. translation apps)
- In-person and telephone consultations (at least two per site; total >eight)
- Home visits using an interpreter
- Routine and emergency consultations
- Documentation relating to interpreting, e.g. invoicing or timesheets, service specification quality appraisal, commissioning/contracting.

Observations will be conducted by a trained non-participant observer, working with each site to identify the key events above within their capacity and Health Research Authority ethical guidance. Rather than be prescriptive about the length of time we will spend in practices, we intend to follow a three-part process: (1) familiarisation/reconnaissance work with practices to introduce ourselves to staff and understand the nature of their interpreting services and/ or language support they use (formal/ informal and in person/ virtual where appropriate). (2) Targeted observations to witness specific, relevant events (e.g. an interpreter booking process, staff meetings) and documents (e.g. commissioning documents or guidance) and (3) Random observation of practices to see what happens in real life. This way, we will make sure that key events are captured irrespective of the timeframe for observation length. Based on our previous observational work, we believe that four practices will provide more than adequate data when paired with n=15-20 interviews with commissioners and policy makers to provide a generalisable overview.

## Interviews with GP practice staff and interpreters

We will carry out semi-structured interviews with primary care staff at each of the four case study sites, including GPs, practice nurses and administrative staff (n=5 in each practice, total~20), interpreters (n~3 per site; total~12) and representatives from providers of interpreting services (n~5), to understand their experiences of delivering interpreting services.

## Interviews with policy makers and commissioners about implementation/guidance

We will interview commissioners and policy-makers at local (CCG/ ICS; n~10) and national levels (n=5-10) about their experiences of planning the delivery of interpreting services in primary care. We will use snowballing techniques (via our advisory group, who include commissioners and people working at policy level) to recruit participants.

In line with similar studies using CFIR (43,44) interviews will be guided by its constructs such as:

- Intervention characteristics: participants' views about the development and quality of interpreting services, difficulties associated with its implementation, perceived effectiveness of the interpreting service, perceived resource implications
- Outer setting: patient needs and associated barriers and facilitators, external policies and incentives
- Inner setting: structural characteristics of the case study sites, and their norms, values and social networks
- Characteristics of individuals: attitudes towards interpreting services, experiences of use
- Process: identification of key individuals (e.g. opinion leaders) in determining interpreting services, engagement with services, carrying out interpreting services, reflections/evaluation

### Analysis

Our raw data will consist of transcribed interview recordings, observation notes and documentation. We will analyse data during the stage of data collection to generate findings that can be used by the research team and other stakeholders as the study is ongoing. CFIR domains will mapped using pre-established summary templates called Rapid Assessment Procedure (RAP) sheets (45). RAP sheets will also be used as working documents to record data that do not fit within the CFIR (and might align with other topics such as cultural competency, the candidacy framework (13) and patient burden (46)). RAP sheets are useful because they facilitate comparisons across study sites and populations (patients and staff) as well as the triangulation of data from different sources. We will also carry out more in-depth analysis by using an inductive thematic analysis approach to draw out themes across the transcribed data, before further interpreting the data using CFIR domains (including findings from WP1) to develop individual- and cross-case findings about interpreting services. Analyses will inform our guidance in WP3 through the identification of 'good practice' and targets for improvement. The researcher will meet weekly with C Vindrola and G Black during the data collection/analysis phase to discuss the RAP sheets and iterate/evolve our interpretations. As this process progresses, the RAP sheet categories may be changed or added to. When a substantial portion of the data has been summarised in this way, we will start to extract relevant quotations to a framework matrix based on the RAP sheet categories. This will enable us to make comparisons and find contrasts between the four case study sites. The researcher, C Vindrola and G Black, with the support of the wider research team will use the framework matrices to draw out the most relevant and compelling themes that will inform policy and practice.

## WP 3 PATHWAYS TO IMPACT (Months 18-24); Leads: KW, GB & CV

Objective: To develop up-to-date, evidence-based guidance about optimal commissioning and delivery of interpreting services in primary care.

### Method/approach:

#### Integrate findings from WP1 and WP2, initial guidance development.

Although there is existing guidance for commissioners of interpreting services (24), this is not based on systematically collected and appraised evidence (31) and there is an urgent need for up-to-date guidance for those involved in the provision of language support, such as commissioners, healthcare professionals and professional interpreters. Our project design combines national data gathering with in-depth case studies to provide information about the scale of use and need, and current picture of service delivery. We will integrate findings from WPs1 and 2 using the CFIR (35) to develop guidance about optimal commissioning and delivery of interpreting services. The guidance will include information about how to support optimal patient experience with (access to) interpreting services, clinical quality in primary care consultations and effective commissioning of interpreting services. Table 2 summarises the anticipated pathways to impact at various stages of the proposal.

#### Policy workshop to engage at policy level

Following guidance development, we will work with Policy Connect to prepare, deliver, and produce the outcomes of a policy workshop. The event will explore policy recommendations as a result of the project. Policy Connects work will include engagement with; a) the Department of Health and Social Care, including the Office for Health Improvement and Disparities b) individual Integrated Care Systems regarding the project, evaluation and commissioning and c) individual MPs with a personal or constituency interest in the research project. Invitees will include, policy makers, lived experience advocates, clinical staff, third sector representatives, representatives of interpreting service providers and any other stakeholders with a direct interest/stake in the project. The event aims to bridge the gap between research and policy makers. The workshop is designed to contextualise the role of interpreting services in access to primary care and addressing health inequality. Members of the research team will detail the projects findings, policy options and recommendations as well as the wider implications for health policy. The event will alert key stakeholders to the project and attempt to ensure ongoing parliamentary engagement and maximum impact as a result. Furthermore, Policy Connect will sit on the projects advisory board, to signpost to relevant policy opportunities in relation to the project and support policy actions.

We have also liaised with Shabira Papain (Chief Executive at People Street), who will coordinate and conduct public engagement sessions with participants from South-Asian backgrounds. People Street's work is focussed on tackling inequalities through cooperation, self-determinism, community development, and social justice. Their approach unites the bottom-up, real world experiences and wisdom of communities with innovative service designers, researchers, commissioners, and decision makers.

### About Policy Connect

Policy Connect is a membership-based, not-for-profit, cross-party think tank that brings together parliamentarians and government in collaboration with academia, business and civil society to inform, influence and improve UK public policy through debate, research and innovative thinking. The event will outline the aims and outcomes of the research, why Parliamentarians and policy-makers should be interested, and which areas of policy could be affected by the work. Discussion will lead to cross-party policy recommendations as detailed in the event summary. Policy Connect provided the following context:

*"The proposed project feeds directly into several current government policy development and/or ambitions. The Health and Care Bill currently moving through the House of Lords will be implemented during the project's life span, with the finalising of Integrated Care Systems (ICSs) and the opportunity to partner with specific ICSs. The project has the potential to demonstrate best practice at a local or regional level with national implications through the Bill's provisions or upcoming integration white paper. Policy Connect provides the secretariat for the All Party Health Group and hosted a number of events on the bill, as well as engaging with ICSs and other stakeholders. Inequality is a major theme of current government action in the establishment of the Office for Health Improvement and Disparity (OHID), currently setting their priorities for 2022 and beyond. The research has the capacity to feed into OHID's advice and recommendations. Policy Connect have met with OHID and will continue to meet regarding areas of collaboration.*

*More broadly, within the NHS, health inequalities have moved up the agenda. The Director of Health Inequality, Dr Bola Owolabi, is driving the progress of NHS Core 20+5, an initiative to support ICS's in identifying specific projects to reduce health inequality between socioeconomic groups and particularly vulnerable local groups. This research project will create recommendations to support implementation, break down barriers to uptake of services in specific populations and produce transferrable recommendations on a local and national scale. Policy Connect have engaged with Dr Owolabi and NHSE on this work and will support this agenda through events and reports."*

*Table 2 - Anticipated outputs, stakeholders, anticipated impacts and advisory group members/ expertise*

| Output | Stakeholders | Impact | Advisory group members/ expertise |
|---|---|---|---|
| Briefing documents about results of WP1 and WP2: high-level summary of study findings | Government/ regulatory bodies (e.g. NHS England, Clinical Commissioning Groups) | Increased awareness of current interpreting uptake in relation to socio-demographic variables, barriers to uptake, access and patient satisfaction | **NHS England**<br>• Sarah Stephenson, wrote the existing commissioning guidance, works in the Chief Operating Office for NHS England as Senior Programme Lead.<br>• Dr StJohn Livesey, GP and Clinical Director, NHS Sheffield Clinical Commissioning Group, who will help with primary care and stakeholder engagement.<br>• Dr Michael Brady, Deputy Director of Patient Equalities NHS England and national advisor for LGBTQ healthcare.<br>• Matthew Boycott, Senior Programme Lead, Primary Medical Services Commissioning Primary Care, Community Services and Strategy Directorate, NHS England and Improvement. National lead for translation and interpreting services in primary care for England.<br>**Academic expertise**<br>• Dr Emma Brooks, Lecturer, Dept of Culture, Communication and Media, UCL; expertise in understanding the multilingual consulting room<br>• Prof Monica Lakhanpaul, Professor of Integrated Community Child Health; expertise in participatory methods to co-design interventions for the advancement of population science. Led the Nurture Early for Optimal Nutrition (NEON) Programme funded by NIHR and worked with our current PPI member, LI, as part of this project.<br>• Dr Najia Sultan, NIHR in Practice Fellow, QMUL, GP/ Blithehale Medical Centre |
| Policy Connect workshop to develop cross-party policy recommendations | Interpreting services, e.g. BigWord, Language Line<br>Government/ regulatory bodies (e.g. NHS England, Clinical Commissioning Groups) | This workshop coincides with the conclusion of the study and provides a final opportunity to disseminate the project findings in their entirety, facilitated by experienced dissemination experts | |
| Cross-party policy recommendations for government and commissioning generated by workshop | Interpreter services, e.g. BigWord, Language Line<br>Government /regulatory bodies (e.g. NHS England, Clinical Commissioning Groups) | Guidance will outline options for improvement of access to, and quality of interpreting services in primary care | |
| Briefing report co-produced by Policy Connect and project team summarising the research outputs, learnings from the project and creating policy recommendations across health with steps to | Interpreter services, e.g. BigWord, Language Line<br>Government /regulatory bodies (e.g. NHS England, Clinical Commissioning Groups) | Increased engagement within health policy and commissioning on the issue of interpreting services, and raised awareness of the importance of this type of research for understanding how to improve access to interpreting services for patients | |

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| implementation. | Royal College of General Practitioners (RCGP)/National Register of Public Service Interpreters (NRPSI) | | • Dr Neesha Gunowa Oozageer, Senior Lecturer and Pathway Lead for Community Nursing<br>**Policy expertise**<br>• Policy Connect, People Street<br>**Patient and public engagement:**<br>**People Street**<br>• We have secured support from People Street to maximise our community engagement and routes to disseminate to members of the public. Activities will include:<br>- Use of their local network of voluntary sector providers to access specific communities throughout the duration of the project.<br>- Support with advice on how best to present both the project and findings to the public.<br>- Help with designing information addressed to the public.<br>- Utilisation of connections to access non-English speaking South Asian communities in the London region.<br>- Sharing information (including surveys/calls for engagement) on the NHS Future patient engagement platform dedicated to patient engagement in primary care.<br>**Patient representation**<br>• LI is our PPI lead and will oversee PPI membership of the advisory group. Further details of LI's experience are presented in the co-applicant sections.<br>• SB was born and raised in Germany to Sri Lankan parents. Suregah often acts as an informal interpreter for friends and family in their medical appointments, in either Tamil or German (whichever is needed), to support them from a language and cultural perspective.<br>• RH identifies as British Indian, speaks English and Hindi, and |
| Validated measure of interpreting service uptake that can be used in local evaluations/ service improvement work | Government/ regulatory bodies (e.g. NHS England, Clinical Commissioning Groups),<br>Members of the public/ patients | Improved monitoring and research into interpreting services leading to service improvement over time.<br>The measure can be used to gather views from different communities where language may be a barrier to healthcare access. It could also be adapted to be used in different health settings (e.g. secondary care). | |
| Webinar/CPD activity on implementation guidance for interpreting services | Royal College of General Practitioners (RCGP)/ healthcare professionals | Increased awareness of self-directed and practice-level strategies to help increase uptake and quality of interpreting services within primary care consultations | |
| Development of public-facing materials | People Street | Increased public awareness of interpreting services and how to access them. | |
| Peer-reviewed publications detailing insights and outcomes of the study | Academia<br>Royal College of General Practitioners (RCGP) | Insights about the delivery of interpreting services from multiple perspectives and different delivery models. Methodological reflections, e.g. use of rapid data collection techniques and CFIR to structure the project. | |
| NIHR HSDR final report: detailed peer-reviewed account of all study findings and outcomes of Policy Connect workshop | All stakeholders | Insights about the delivery of interpreting services from multiple perspectives and different delivery models. Methodological reflections, e.g. use of rapid data collection techniques and CFIR to structure the project. | |

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| | | | was educated in Scotland and lived in England for much of his adult life. As part of normal family life, Ravindra support family members from older generations in their negotiation of UK life, which has also involved supporting their communication with public services. |

### Summary of patients/ services users/ carers/ public as research participants

In work package 1 the participants are adults from Pakistani, Indian or Bangladeshi backgrounds with low English language proficiency. We have an existing full protocol for this work, approved by University of Surrey's ethics committee. Informed consent will be obtained from those taking part in the survey by multilingual interviewers. The survey will be conducted over the phone and the study information sheet will be translated "live" into the multiple languages, such as Punjabi, Urdu, Bengali, Gujrati and Hindi according to participants' preference. Trained interviewers will go through the information sheets (i.e. like a script) and give potential participants the opportunity to ask questions and decide whether to take part. Verbal consent will then be obtained from participants by the interviewer. The inclusion criteria are the same for the qualitative interviews but there is a separate consent process/documentation, which has also already been approved by the University of Surrey ethics committee.

In work package 2 for the GP practice case studies, participants will include frontline staff working in GP practices who have used/initiated/delivered professional interpreting services in primary care (receptionists, practice managers, GPs, interpreters). The researcher will introduce themselves at the beginning of an observation (e.g. a meeting or consultation), and make clear that participants can request not to be included in observational notes. A copy of the study information sheet can be made available by email in advance of meetings. The researcher will not speak during observations unless participants have questions about the study. Following recruitment of GP practice sites as case studies, all staff working in the practice will be eligible to take part in an interview and the researcher will obtain verbal or written informed consent before participation depending on whether the interview is conducted remotely or in person. Interpreters and representatives of interpreting service providers (e.g. Language Line), as well as commissioners and policy-makers will be approached using the same consent procedures. In the event that a participant does not wish to continue in the study, they may withdraw at any time and all identifiable data collected would be withdrawn. We will develop a full protocol for this aspect of the work when applying for ethical and regulatory approvals (see also below).

## 5. Dissemination, Outputs and anticipated impact

Our dissemination strategy and anticipated impact are presented in Table 2 as part of work package 3 (Pathways to impact). The work packages have been designed to produce some rapid outputs as the work proceeds, such as a briefing document with the results of work packages 1 and 2. We will disseminate the findings to a wide range of stakeholders to generate, prioritise and appraise guidance to improve access to and uptake of interpreter services. There will also be an emphasis on sharing learning on how to effectively implement interpreting services in primary care. Beneficiaries of the research will include:

**Patients:** Understanding the needs of patients is central to improving the national provision of interpreting services. This will have a direct impact on uptake of services, patient experience and ultimately health outcomes as described in the rationale above. We have an experienced PPI lead to spearhead our patient engagement work and members of the public on our advisory board from a diverse range of backgrounds and experiences to ensure multiple patient voices influence the project from inception to dissemination, for the benefit of patients.

**Primary care:** Short-term impacts include access to practical guidance for implementation of optimal interpreting services for practice managers and GPs to improve delivery. Poor delivery of interpreting has been recognised before COVID-19; this issue is now even more prominent with the pressures on the primary care sector and paradigmatic shift towards remote consultation. The detailed findings of WP2 in conjunction with national survey results will provide targets for the improvement of interpreting services. This has the long-term potential to improve healthcare access and quality for large numbers of patients.

**Interpreting providers:** Our findings will benefit interpreters by creating guidance for how they can better support primary care staff in working with patients. This, in turn, will lead to improved patient experience and safer care.

**Commissioning bodies/ NHS England:** We will maximise the potential impact of this work by working with national leads for the provision of interpreting services. Matthew Boycott (national lead for interpreting/ translation services in the NHS) will provide links to a network of individuals working in policy development and commissioning of interpreting services. The group is co-chaired by John Devery (Commercial Agreement Manager, Language Services, Crown Commercial Services) and Amy Newman (Policy and Strategy Trainee, National Healthcare Inequalities Improvement Programme, NHS England and NHS Improvement). KW (PI on the current project) has already started attending their monthly meetings that aim to:

1. Build a community of translation and interpreters commissioners/leads across Clinical Commissioning Groups/Integrated Care Systems (ICS)/trusts for colleagues to share and learn from each other.
2. Develop an understanding on current commissioning arrangements and build a picture of what is happening where (i.e. contract arrangements and service offer/gaps).
3. Develop an understanding of the current market conditions (capabilities/ capacity/ standards) and how best to engage interpreting services for the NHS.
4. Enable collaboration across systems/ colleagues who might be able to work together (e.g., primary care commissioners and neighbouring Trusts / ICS).
5. Refresh our understanding of interpreting needs of NHS patients, learning from patient experience of the pandemic and other insights on health inequalities.

Our research therefore closely dovetails with the current ambitions of the NHS and will provide an extensive national picture of interpreting services. This research has not been done at scale previously, possibly due to the complex nature of conducting research in multiple languages. However, we have carefully developed this proposal and have demonstrated proof of principle and significant stakeholder engagement as part of this process. We are now uniquely placed to deliver this work.

**Future impact:**
This project has had extensive input from academics, NHS and patients into its design, selection of outputs and dissemination strategies. If successful, we have a highly engaged network of individuals ready to support our research, work with the outputs and support implementation of any subsequent guidance over the coming years. This project will continue work already started by this policy and clinical network which is currently seeking new guidance about how to improve interpreting services and where to invest resources.

## 6. Project/ research timetable

| Months | Tasks | Lead/ responsibility |
|---|---|---|
| -3-0 | Submit ethics for WP1 (Survey and qualitative interviews with SA communities)<br>Start ethics for WP2<br>Finalise steering group members/steering group chair<br>Recruit QMUL Research Fellow (Surrey RF is already in post) | KW, DK<br>UCL RF<br>KW<br>GB |

| Months | Tasks | Lead/ responsibility |
|---|---|---|
| 1-3 | Monthly core project team meetings<br>WP1 begins<br>Submit HRA/IRAS for WP2 (GP Practice case studies)<br>Recruit/ liaise with GP practices<br>Brief multilingual interviewers for WP1<br>Work with Agroni to finalise survey delivery (based on pilot) | Research team<br>KW<br>QMUL RF<br>QMUL RF<br>DK/Agroni<br>DK/Agroni |
| 4-9 | Monthly core project team meetings<br>Steering group meeting 1<br>Advisory group meeting 1<br>Begin recruiting for national survey (n=600)<br>Being recruiting to qualitative interviews (with public)<br>Set up WP2: Observation/qualitative interviews in 4 GP practices<br>Build networks for other WP recruitment | Research team<br>Steering group<br>Advisory group<br>Agroni<br>Agroni<br>QMUL RF<br>QMUL RF |
| 10-14 | Monthly core project team meetings<br>Steering group meeting 2<br>Advisory group meeting 2<br>Finalise recruitment to national survey<br>Data analysis of national survey<br>Finalise qualitative interviews for WP1<br>Finalise fieldwork for WP2<br>Finalise qualitative interviews for WP2 | Research team<br>Steering group<br>Advisory group<br>Agroni<br>KW/ED<br>Agroni<br>GB, CV, QMUL RF<br>QMUL RF |
| 15-19 | Monthly core project team meetings<br>Steering group meeting 3<br>Advisory group meeting 3<br>Data analysis of qualitative interviews for WP1 (n=30)<br>Data analysis WP2<br>Start WP3 (Month 18)<br>Run policy workshop<br>Develop guidance for primary care and public<br>Begin NIHR report write up (month 19) | Research team<br>Steering group<br>Advisory group<br>DK<br>GB, CV, QMUL RF<br>Research team<br>Policy Connect<br>ALL<br>KW |
| 20-24 | Monthly core project team meetings<br>Steering group meeting 4<br>Advisory group meeting 4<br>Complete WP 3: Co-produce guidance/ resources, including briefing report co-produced with Policy Connect.<br>Finalise guidance/ resources and disseminate (e.g. via webinar)<br>Writing up publications for peer-reviewed journals | Research team<br>Steering group<br>Advisory group<br>KW, GB, CV with Policy Connect<br>Research team<br>Research team |

## 7. Project management/ governance

The research will be led by Katriina Whitaker with substantial input from co-leads of work package 2, co-investigators, PPI and three research fellows who will make up the research team. KW has substantial grant management experience as previous PI on seven grants and is an experienced researcher in primary care and inequalities, delivering outputs on time and within budget. We have appointed two forms of project governance to ensure the research is conducted to rigorous standards and to develop updated guidance for rapid dissemination.

### i) Advisory group to support delivery of work packages and pathways to impact

We have convened an advisory panel in recognition of the importance of translating the research into practice and built on this group between Stage 1 and Stage 2. We have representation across the NHS, academia, policy and people with lived experience to maximise impact. Details of the advisory group are provided in Table 2.

### ii) Steering committee to provide independent feedback:

We will convene a steering committee to provide overall supervision for the project on behalf of the project sponsor and project funder and to ensure that the project is conducted to rigorous standards. Meetings will be held twice a year for a 24-month project (i.e. four meetings in total) and precede advisory group meetings so that recommendations can be actioned. We have nominated Dr Shamini Gnani (who has agreed) to chair the independent steering committee: https://www.imperial.ac.uk/people/s.gnani. Dr Gnani is a GP and Senior Clinical Teaching Fellow at Imperial College London specialising in primary care, urgent care, quality improvement and health inequalities. We will also appoint at least two PPI members and two independent academic members to the steering committee.

### Frequency of meetings

The research team will meet monthly (on average), with sub-team meetings held at UCL and Surrey between leads of work packages and research fellows. Both the advisory group and steering group will meet twice a year (four times in total), with them staggered so that the steering group feeds advice that can be acted on in the advisory group meetings. We anticipate these meetings will be held virtually on Microsoft Teams. Secure file-sharing will take places using a secure OneDrive site hosted at the University of Surrey. Overall research governance and project management will be overseen by the University of Surrey. All data handling will comply with current Data Protection Policies.

## 8. Ethics/ regulatory approval, data management and indemnity

We have obtained University of Surrey ethical approval (ref FHMS 19-20 088 EGA Amend 1) for Work Package 1. We will require approval from the Health Regulatory Authority (and local GP practices) prior to commencing work package 2 and this is factored into the study timeline. Each work package therefore has its own detailed protocol for the purpose of ethical/ governance review.

All investigators and study site staff will comply with the requirements of University policies, sponsor requirements, and in compliance with the Data Protection Act (DPA) and the General Data Protection Regulation (GDPR) with regards to the collection, storage, processing and disclosure of personal information.

University of Surrey (WP1) and Queen Mary University (WP2) have insurance in place for the design and management of the studies as well as no-fault policies, which provides an indemnity to participants for negligent and non-negligent harm.

## 9. Project/ research expertise

We have expertise across healthcare and inequalities research including psychology (KW), epidemiology (EW), health services research (GB), medical anthropology (CV), implementation science (GB, CV), primary care (PG), translation/interpreting studies (SB, DK), public involvement (LI, Agroni) and equality and diversity (EW).

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| PI: Katriina Whitaker, | Professor of Psychology with expertise in mixed methods, primary care and inequalities research. | Lead the research team: lead work package 1, manage budget and ensure delivery of milestones on time. |

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| | https://www.surrey.ac.uk/people/katriina-whitaker | |
| Georgia Black | Reader in Applied Health Research/ THIS institute Fellow. Health Services Researcher with expertise in qualitative research and applying implementation frameworks.<br>https://www.qmul.ac.uk/wiph/people/profiles2022/black-georgia.html | Co-lead of work package 2: line management of QMUL Research Fellow, co-lead analysis, interpretation and translation to guidance. |
| Cecilia Vindrola | Medical Anthropologist. Expertise in applied health research and applying rapid qualitative approaches. https://iris.ucl.ac.uk/iris/browse/profile?upi=CVIND44 | Co-lead of work package 2: co-lead analysis, interpretation and translation to guidance. |
| Paramjit Gill | GP in deprived areas. Expertise in understanding underuse of interpreting services. https://warwick.ac.uk/fac/sci/med/staff/pgill/ | Providing primary care expertise across the work packages. |
| Emily Williams | Reader in Health Inequalities and Director for Equality, Diversity and Inclusion at the University of Surrey. Epidemiological expertise who will advise on data analysis https://www.surrey.ac.uk/people/emily-williams | Providing expertise in epidemiology and ethnic and social inequalities in chronic disease and oversight of the quantitative analysis in WP1. |
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| Graham Hieke | Research Fellow. Expertise in mixed methods research with a social sciences background https://www.surrey.ac.uk/people/graham-hieke | Will lead data collection and analysis for the public survey and interviews. Key point of contact for Agroni |
| Sabine Braun | Professor of Translation Studies with expertise in research on technology-assisted forms of translation and interpreting, including remote interpreting research https://www.surrey.ac.uk/people/sabine-braun | Providing expertise in translation/interpreting studies across the work packages, with a particular interest in use of technology. |
| LI | Patient and Bengali Interpreter | PPI Lead: Develop and shape PPI plans, liaise with research team about PPI activities, recruiting PPI contributors, communicating results. |
| Judith Yargawa (QMUL) | Social science background/ experienced qualitative researcher https://www.qmul.ac.uk/wiph/people/profiles/judith-yargawa.html | 100% FTE staff member. Will lead data collection and analysis for WP2. |

## 10. Patient and public involvement

LI is our named PPI and co-applicant and has been involved in the pilot work and development of the application and will continue to support the application by working with the research team to set and refine the overall PPI strategy/ be a key point of contact for other public contributors. LI is a Bengali interpreter who has previous experience of working on large NIHR grants with specific experience of working with South Asian Communities (to recruit participants as a research champion) and in primary care (working with GP practices as an interpreter). LI worked on the NEON study, a community-led and co-produced intervention, to support infant nutrition in London’s South Asian communities.

We have developed an advisory group with relevant stakeholders, including additional patient representatives, who will formally meet twice a year during the 24-month project and act as a sounding board throughout the course of the study. Meetings will be held online (e.g. through Microsoft Teams) and we will also seek additional input via email or telephone. As well as patient representatives, the group includes GPs, representatives from NHS England, academics who have previously worked on projects involving people with limited English proficiency and those with links to policy.

We recognise that not every member will be able to attend at all times. We will follow up with non-attenders and seek their input individually at moments that are suitable for them. We will provide remuneration for our lead PPI representative equivalent to 5% FTE, as well as for up to five additional PPI members to participate in the above meetings, following NIHR payment guidance for researchers.

Although at this stage it is unknown what training needs stakeholders might have prior to their participation in the meetings, we anticipate that our lay representatives would benefit from a half-day workshop (facilitated by Demi Krystallidou, co-applicant, who has extensive experience of engaging with the public on topics around language proficiency) covering the following topics: i) interactional dynamics of interpreter-mediated consultations, ii) implications arising from different types of language support (e.g. professional, informal) and modes of delivery (e.g. face-to-face, telephone, video), iii) delivery of communicative goals of patients, healthcare professionals, support staff, interpreters and implications for communication and consultation outcomes, patient satisfaction and adherence. The purpose of the workshop is to ensure that participants feel empowered to share their lived experience by reflecting on areas that are likely to be left unnoticed by lay people despite them having experience in these areas.

Our PPI lead and members of the advisory group will assist us with all aspects of project delivery, including recruitment, data interpretation, dissemination strategy for our findings and impact.

## 11. References

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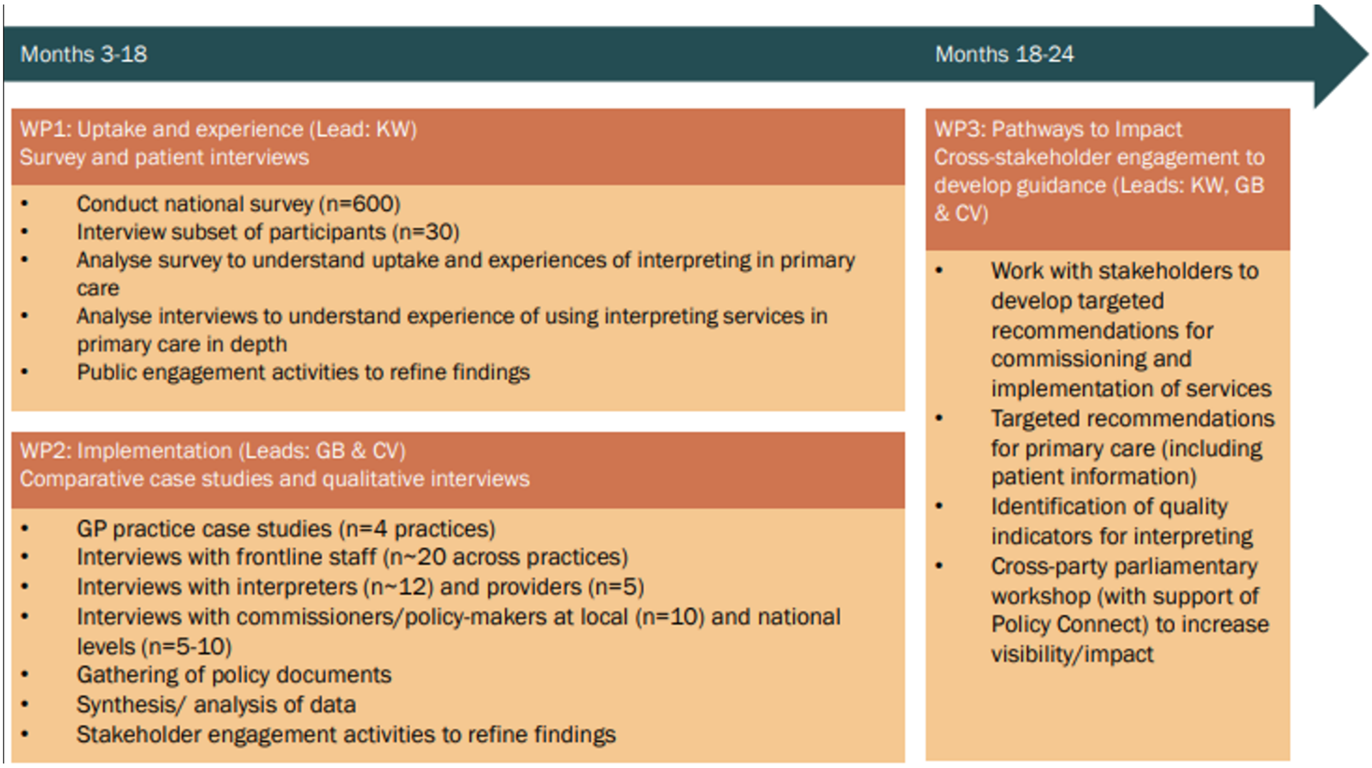
## 12. Appendices

### 12.1 STUDY FLOWCHART



Months 3-18

Months 18-24

WP1: Uptake and experience (Lead: KW)
Survey and patient interviews

- Conduct national survey (n=600)
- Interview subset of participants (n=30)
- Analyse survey to understand uptake and experiences of interpreting in primary care
- Analyse interviews to understand experience of using interpreting services in primary care in depth
- Public engagement activities to refine findings

WP2: Implementation (Leads: GB & CV)
Comparative case studies and qualitative interviews

- GP practice case studies (n=4 practices)
- Interviews with frontline staff (n~20 across practices)
- Interviews with interpreters (n~12) and providers (n=5)
- Interviews with commissioners/policy-makers at local (n=10) and national levels (n=5-10)
- Gathering of policy documents
- Synthesis/ analysis of data
- Stakeholder engagement activities to refine findings

WP3: Pathways to Impact
Cross-stakeholder engagement to develop guidance (Leads: KW, GB & CV)

- Work with stakeholders to develop targeted recommendations for commissioning and implementation of services
- Targeted recommendations for primary care (including patient information)
- Identification of quality indicators for interpreting
- Cross-party parliamentary workshop (with support of Policy Connect) to increase visibility/impact

## 12.2 AMENDMENT HISTORY

| Amendment No. | Protocol version no. | Date issued | Author(s) of changes | Details of changes made |
|---|---|---|---|---|
| 1 | 1.1 | 01/11/2022 | KLW | Following NIHR review:<br>p.1 Corrected £610,000 for £610,004.46<br>p. 1 Removed email address for NIHR staff member<br>p.5 Changed "Lay Summary" for "Plain English Summary" (and updated index accordingly)<br>p.19 Removed names of PPI and policy members from the document.<br>p.30 Moved section on Research reference numbers to the first page of the Protocol. |
| 2 | 1.2 | 02/05/2024 | GH/KLW | Edited to reflect People Street as public engagement organisation we are working with (specialising in working with communities where English language is a barrier and for whom our research is likely to be of most benefit).<br>Updated to include details of key research staff on the project. |