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# **A rapid evidence review of interpreting interventions in public health**

Language and communications service needs assessment

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## Introduction

This rapid evidence review forms part of the Public Health Language and Communication Service Needs Assessment conducted by PHE West Midlands Health and Wellbeing team. The results will be used to inform policy and practice recommendations for PHE and the wider public health system.

This review should be viewed alongside:

- A. Stakeholder consultation on language and communication service needs assessment
- B. West Midlands data pack for language and communications service needs assessment
- C. The final language and communication service needs assessment report

## Methods

### Research question:

What is the impact of interpreting interventions in public health?

### Search strategy

A literature search was conducted on 1/8/2019 by PHE Knowledge and Library Services. Databases searched included Medline, Embase, Trip medical database, NICE Evidence and Google. Search terms were combined for interpreting, translating, linguistics, migrant, refugee, limited English proficiency, non-English and health. There was an English language limit applied to the search. The search strategy included all study types published since 2005. Due to the large number of studies found only systematic reviews and scoping reviews were included. Abstracts were reviewed by a single reviewer for relevance and duplication. Reference lists were also searched for additional studies.

## Results of rapid evidence review

The database search found 1519 studies in total, and once screened for relevance and duplication only 129 met the inclusion criteria. Due to time limitations only systematic and scoping reviews were included in this report. 3 systematic reviews<sup>1,2,4</sup> all with narrative synthesis, and 1 scoping review<sup>3</sup> met the inclusion criteria. Study characteristics are detailed in the table below. A further 3 systematic reviews were identified via snowballing, they were published earlier than 2015 but considered valuable due to the high level of evidence.

<b>Title</b>	<b>Publication year</b>	<b>Country</b>	<b>Number &amp; type of studies included</b>	<b>Population</b>	<b>Outcomes</b>
Hospital and Health System-Level Interventions to Improve Care for Limited English Proficiency Patients <sup>1</sup>	2019	USA	19	LEP patients	Quality of care, access to healthcare
Challenges and facilitators for health professionals providing primary healthcare for refugees and asylum seekers in high-income countries <sup>2</sup>	2017	High income countries	26 qualitative studies	Refugees, asylum seekers	Provider-patient relationship, cultural understanding, time satisfaction
Accessibility and quality of health care delivery for refugees, asylum seekers and newly arrived migrants: which policies and interventions work? <sup>3</sup>	2015		72	Refugees, asylum seekers, newly arrived migrants	Quality of care including provider-patient relationship, cultural understanding, time satisfaction
Effect of Interventions to Facilitate Communication Between Families or Single Young People with Minority Language Background and Public Services <sup>4</sup>	2015	UK	4 RCTs or quasi-randomised trials	Immigrant children, youth or families (with children under 18 years of age) with minority language backgrounds.	Change in communication, user satisfaction, reported trust, use of services
Do professional interpreters improve clinical care for patients with limited English proficiency? <sup>5</sup>	2007	USA, Switzerland, Saudi Arabia, UK, Australia, S. Africa	28 papers (75% quantitative, 25% qualitative)	LEP patients	Quality of care
The impact of medical interpreter services on the quality of health care <sup>6</sup>	2005	USA	36 papers	LEP patients	Quality of care, health outcomes
Remote interpretation in medical encounters <sup>7</sup>	2005	USA, UK	9 papers	LEP patients	Cost of interpreting service

*Table 1: Characteristics of studies included in the literature review.*

## Population

In 4 systematic reviews the population was Limited English Proficiency patients.<sup>1,5-7</sup> In one systematic review and one scoping review the population was refugees and asylum seekers.<sup>3</sup> Newly arrived migrants, and families or single young people with minority language background were each included in the population of one review.<sup>3,4</sup>

## Interventions

Interventions assessed included hospital and health system-level interventions to improve care, professional interpreters, medical interpreting services, remote interpretation (videoconference and telephone interpreters).

Glossary of key terms	
Hospital-wide interventions	Intervention that was clearly applied to 3 or more clinical services <sup>1</sup>
Health system level interventions	Intervention applied to a network of 2 or more institutions providing health care <sup>1</sup>
Professional interpreters	Any individual paid and provided by the hospital or health system to interpret <sup>5</sup>
Ad-hoc interpreter	An untrained person who is called upon to interpret, such as a family member interpreting for parents <sup>5</sup>
Remote interpreting	Interpretation when the interpreters are not located in the same place as the service provider and user. For example, using telephones or videoconferencing to communicate.
Migrant-friendly Hospitals	The Migrant-friendly hospitals project was a 2- year EU funded project focused on putting culturally competent healthcare and health promotion higher on the EU policy agenda, and to support other hospitals by compiling practical instruments. <sup>3</sup>

## Comparators

The comparator was either no intervention or another type of language intervention.

## Outcomes

Four reviews gathered evidence on the impact of interpreting interventions on quality of care.<sup>1,3,5,6</sup> Three reviews evaluated the impact on communication between the healthcare provider and the patient. Two reviews gathered evidence on other aspects of the healthcare encounter such as a trusting relationship, cultural understanding, time and satisfaction (both patient and clinician).<sup>2,3</sup> Health outcomes, access to healthcare and cost of interpretation were all assessed in one systematic review each.<sup>6,1,7</sup>

## Setting

The papers included studies from mostly clinical settings. This ranged from whole hospitals, such as the Migrant-Friendly hospitals in Europe, primary care, outpatient clinics and specific specialities such

as mental health, emergency departments, obstetrics, paediatrics, orthopaedics and palliative care. Community settings included health promotion services, school nursing, health visiting, urgent care, well-baby clinic, and refugee reception centres. None of the papers explicitly mentioned a public health, health protection or infectious disease clinical setting. Many of the reviews included studies from high income countries only. The most common settings were the USA and the UK followed by Australia, and other countries in the European region such as the Netherlands and Switzerland.

## Limitations

The rapid review was not able to consider study types other than systematic and scoping reviews due to time and resource restrictions. The review focused on people who have limited English proficiency, however there are other populations such as British Sign Language (BSL) who have communication needs too. It also focused on health settings and does not explore the evidence for interpreting in the expansive range of social services that also impact on health. For example, in local authority services and projects delivered by NGOs for vulnerable groups.

## Results

### Quality of care

In 2015, the WHO Europe Health Evidence Network (HEN) conducted a scoping review considering 72 studies.<sup>3</sup> It stated that outcome data was limited, mostly focusing on perinatal health and mental health. However, a key finding was that the need for improved communication with asylum seekers was widely noted. Recommendations on overcoming linguistic barriers to quality healthcare included provision of professional interpreters, free of cost to the patient and the health professional. It recommended that this provision should be embedded in an intersectoral approach and monitored using documentation of language and literacy levels of patients.<sup>3</sup>

In 2007, Karliner et al conducted a systematic review, to find the answer to “Do professional interpreters improve clinical care for patients with Limited English Proficiency?”<sup>5</sup> They explored four themes including utilisation of clinical care and clinical outcomes. Based on synthesis of 28 papers, in each theme they found that use of professional interpreters is associated with improved clinical care, more than use of ad hoc interpreters. Professional interpreters also appear to raise the quality of clinical care for LEP patients to the same level of patients without language barriers.<sup>5</sup>

This finding is supported by a 2005 systematic review from Flores et al. on the impact of medical interpreter services on quality of care.<sup>6</sup> The review of 36 papers found that more interpreter errors occur with untrained ad hoc interpreters. In addition to use of professional interpreters, the review also explored use of bilingual health care providers. It found that both positively affected LEP patients' quality of care and health outcomes.<sup>6</sup>

The 2019 systematic review on hospital and health-system level interventions explored quality of care in terms of metric tracking, access and satisfaction.<sup>1</sup> The review included 3 studies that used data surveillance, monitoring and evaluation to improve quality of care. One study based at 8 hospitals in Switzerland implemented routine data collection of language needs from patients at registration, finding that it was an acceptable and feasible process for patients.<sup>8</sup> Another study at 10 hospitals in the US started an intervention called “Speaking Together”. It involved the creation of an MDT focused on language services and monitoring of 5 metrics related to their work.<sup>9</sup> Metrics included collecting language preference for patients, patients receiving language services from professional interpreters and time taken for patient to access language services. Results showed that each hospital had improvement in at least one metric by over 5 percentage points.<sup>9</sup>

Speaking Together was an initiative practiced in other health collaboratives with additional features. The University of Michigan Health System added a work flow prompt to remind staff to collect language data and developed a daily inpatient and outpatient report of language needs of patients. The report was shared with interpreters and they used it to check if patients were accessing language services. In 2 years the use of professional interpreters increased from 19% to 83% of encounters with LEP patients.<sup>10</sup>

### Access to healthcare

It is well established that in the absence of appropriate communication, refugees and asylum seekers have limited access to the healthcare system and wider support.<sup>3</sup> The WHO Europe HEN scoping review commented on three broader factors that a high-quality communication service should incorporate. In summary these are cultural competence, differing conceptual models of health, and ability for partnership working between healthcare and related sectors.<sup>3</sup>



Health professionals working with migrants should be able to explain the host country's health system and understand the legal and policy frameworks affecting healthcare provision for migrants. In addition, they should be educated on what health risk factors migrants may be vulnerable to because of their history and legal status. Secondly, people from different countries and with different experiences may adopt different understandings of health and illness. A health professional should establish what the expectations of their patient are to deliver patient-centred care. Thirdly, migrants may have low health literacy. They may not understand how different services, such as the NHS and Health and Social Care, for example, work together. This need can be avoided by enhancing intersectoral working at a higher level.<sup>2,3</sup>

One study examined the impact of the "threshold language access policy" brought in by the California Department of Mental Health in 1999. The policy states that Medi-Cal agencies must provide language assistance in a non-English language where a county's medical population contains either 3000 residents or is composed of over 5% of speakers of that language. Using 10 years of quarterly data, they found that the policy, which stipulates use of bilingual staff and interpreters (either face-to-face or remote), led to a significant increase in language assistance for LEP patients.<sup>11</sup>

## Healthcare encounter

In 2017, Robertshaw et al conducted a systematic review and thematic synthesis of qualitative research. It looked specifically at challenges and facilitators for health professionals providing primary healthcare for refugees and asylum seekers in high income countries. It found that interpreters were a major facilitator, and this worked best when interpreters were well trained and familiar with medical terminology.<sup>2</sup>

## Communication

This theme was mentioned in 22 of the 26 papers included. The nature of the data provided more detail about interpreting than that found in the mostly quantitative systematic reviews. Robertshaw et al found that continuity of the interpreter was deemed to be important in fostering good communication and confidence in the level of interpretation.<sup>2</sup>

The review also picked out detail on challenges with using interpreters from a health professional's perspective. The main challenges were additional time for the healthcare encounter, and cost. Finding an appropriate interpreter at the right time was not always possible, and this could lead to delayed, extended and rearranged appointments. At times this led to possible compromise in the quality of interpretation by using friends or family members of the patient. Another worry was that interpreters did not always provide an accurate interpretation or added their own views or opinions.

Findings on telephone interpreting were mixed. Benefits included increased availability of interpreters at any time of day, but limitations were problems with the technology used and feeling that telephone was more impersonal.<sup>2</sup>

## Time

A 2005 systematic review gathered evidence on remote interpretation and included 7 articles on telephone interpreting and 2 on videoconference interpretation.<sup>7</sup> In comparison to face-to-face interpretation it found that the remote type was associated with shorter intervals between consultations. However, there were no overall differences in consultation length.<sup>7</sup>

## Satisfaction

Patients and doctors judged remote interpretation to be as good as face-to-face, but interpreters had a preference for face-to-face.<sup>7</sup> However, since then a quasi-randomised controlled trial studying a population of Hispanic women compared telephone, video and in-person interpretation. In the study, patients rated each type of interpreting service highly, but only experienced the one they were rating. Providers and interpreters preferred videoconferencing to telephoning, and in-person interpretation was rated highest overall.<sup>12</sup> A mixed methods study based in Toronto evaluated the impact of making telephone interpretation services for 170 different languages available to a diverse city-wide network of healthcare organisations. Both patients and providers reported a high level of satisfaction with the service, and providers noted a decrease in the use of non-professional interpreters as a result of the scheme.<sup>13</sup>

Interpreter targeted interventions have also been used to improve patient satisfaction with language services. An intervention at the Children's Hospital LA, redefined the language staff role to include a four-level professional career ladder. This included leadership and performance competencies as well as accountability for patient care outcomes. The change contributed to improved patient satisfaction and interpreter career satisfaction.<sup>14</sup>

## Cost

Cost evaluation studies were included in the review on remote interpretation and mainly assessed cost of equipment and interpreters' time. The studies showed mixed results. A survey from the UK in 1999 showed that if demand was low it costed less to use telephone interpreting than employing a face-to-face interpreter. However, if demand was high the opposite was true. Another study from the USA found that the price per consultation was higher for telephone interpreting. However, it was calculated that additional costs could be offset by increased efficiency, such as the shorter time interval between consultations.<sup>7</sup>

## Discussion

This rapid evidence review was conducted to explore the effectiveness of interpreting interventions for public health. The purpose of the review is to inform commissioning of interpreting services in public health programmes. In the case of Public Health England, interpreters are used to facilitate the health protection response, and assist telephone consultations between staff and service users. This review is unique in that it is a review of reviews. In addition, this review differs from others in that it searched for papers on interpreting interventions in public health.

The main finding from the rapid review is that available evidence shows use of professional interpreters in medical encounters improves quality of care. Both quantitative and qualitative studies show that professional interpreters are associated with better quality of care and make less errors than ad-hoc interpreters. In addition, use of bilingual clinical staff as interpreters has also been shown to positively impact on quality of care.

The language service provided can vary by the professional background of the interpreter, the platform used to provide the service, and how the interpreting component is supported by the wider service. The platform used can be videoconference, telephone or traditionally face-to-face. Each platform has different benefits and challenges reflected in the review findings. Overall, provider and interpreter satisfaction were found to be higher with face-to-face interpreting. However, patient satisfaction was found to be at a high level with all types. Providers and interpreters rated face-to-face the best, followed by videoconferencing, and then telephone interpreting.

Benefits of telephone interpreting included the availability of an interpreter at any time of day, and shorter intervals between consultations. A telephone interpreter-based intervention was also found to reduce the use of ad-hoc interpreters in Toronto healthcare organisations. Benefits of face-to-face interpreting included that it felt more personal than other types.

The rapid review also provided an insight into the rich context required for successful language services. Successful language services have multiple components and the interpreting intervention is only one part of the package. Language service use is a sign of success and needs to be considered from the outset. Ways of strengthening the structures and processes aiding the interpreting intervention include introduction of language policies at a health-system or organisation level, intersectoral partnership working, design of language metrics to monitor and evaluate the service, and training for those delivering the service.<sup>1</sup> Cultural competence and public health training on the global burden of disease and international health systems can enhance healthcare professionals' care for a patient who doesn't speak English.<sup>3</sup> Creating a career ladder for interpreters and expanding their role to include leadership competencies has improved patient and interpreter satisfaction with services.

Cost was cited as a challenge to using interpreting services in the qualitative systematic review. Some participants stated that healthcare financing systems were not set up to support the use of interpreters, and in one instance it was reported that interpreters were not used because of funding shortages. Participants reported that use of interpreters resulted in additional costs per consultation.<sup>2</sup> Cost was a factor only explored in one of the quantitative reviews using data on equipment and interpreter's time. The studies compared the cost of the different types of interpreting. They found that the cost was influenced by level of demand, and could be offset by improved efficiencies. It is clear that a new service needs to be properly costed, and sustainably financed.<sup>7</sup> However, in practice the cost is likely to be influenced by the setting, health system, type of service and type of interpreting intervention, and therefore unique to each provider.

## Implications for public health practice

The findings from the rapid review indicate that use of a professional interpreter is best, especially when delivered within a well-structured and governed language and communications service. The finding that patient satisfaction is high with face-to-face, telephone and video interpreting is positive. It indicates that providers of the service can have flexibility in choice of service that suits their organisation.

The rapid review shed light on facilitators such as training for healthcare providers, career progression for interpreters, and partnership working. The success of interpreting interventions is enhanced by the presence of these facilitators. The evidence on cost of interpreting is weak but indicates that savings can be made in shorter time between consultations and cautions on the importance of allocating sufficient funding for interpreting when programme budgeting.

## Implications for public health policy

In 2011, the public sector Equality Duty came into force in the UK. This meant that all public bodies have to consider all individuals when delivering services.<sup>15</sup> The protected characteristics covered by the act and particularly relevant to language are race, including ethnic or national origins, colour or nationality, and sex, as in the UK women are less likely to be proficient in English.<sup>16,17</sup> In 2017-2020 PHE published a report setting out PHE's intention to adopt an updated set of equality objectives. Within this is Objective 1.3 "Promoting equality through programmes...to ensure they advance equality and tackle inequalities".<sup>18</sup>

At the time of writing (May 2020) PHE do not have a national or "One PHE" approach<sup>19</sup> to provision of language and communication services within their programmes, particularly health protection. Services are commissioned by PHE centre rather than whole organisation. This review suggests that interpreting interventions are effective at improving quality of care, access to care and health communication within populations with limited English proficiency. Achieving these outcomes would demonstrate PHE's commitment to their 2017-2020 equality objectives.<sup>18</sup> Adopting a standard to provide an interpreting service for all centres would ensure a consistency of approach and quality across the whole organisation. One monitoring and evaluation system could contribute to the efficiency of the service. Finally, there would be an opportunity for scaled-up data collection to contribute to the evidence base on interpreting interventions in public health.

## Implications for research

Another incredibly important finding from this review is the research gap in terms of studies on the effectiveness of interpreting interventions specifically in public health settings, and in the UK. No reviews or studies with "public health" and "interpreting" in the Title or Abstract were found. English literacy and proficiency is often mentioned in the evidence base as a barrier to public health interventions.<sup>20</sup> However, there is little recent evidence on using language and communication interventions to overcome the barrier. This is of interest in the UK COVID-19 response at the moment, where the government and PHE are looking to explain the reasons why ethnicity is thought to be associated with adverse health outcomes.<sup>20,21</sup>

In addition, the evidence base found focuses mostly on the broad population group of "limited English proficiency" patients. This population is defined by one language characteristic alone. However, to really understand the effectiveness of interpreting interventions in public health, study population data needs to be collected on the PROGRESS factors, and intervention effect analysed by these factors.

PROGRESS describes: place, race, occupation, gender, religion, education, socioeconomic status and social capital.<sup>22</sup> More research is needed on interpreting interventions for inclusion health groups, often the most marginalised in the UK – including vulnerable migrants, gypsies and travellers, homeless people and sex workers.

## Conclusion

Everyone has the right to enjoy the highest attainable standard of physical and mental health<sup>23</sup>, a right that is promoted by PHE and the NHS. The rapid evidence review shows that use of professional interpreters can improve quality and access to care. Professionals who provide public health services and programmes need to assess the language needs of their local population to plan, fund and implement the use of interpreters to ensure people who don't speak English enjoy their right to health.

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