

Language Barriers in Maternal Healthcare: Effects on Prenatal Care Access, Perinatal Outcomes, and Strategies for Equitable Care

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Abstract

Language barriers in maternal healthcare contribute substantially to disparities in prenatal access, quality of care, and perinatal outcomes among migrant populations. Limited proficiency in the host country's language delays care initiation, impairs provider-patient communication, and reduces adherence to clinical guidance, leading to increased obstetric complications, adverse neonatal outcomes, and elevated perinatal mental health risks. These challenges are compounded by systemic factors such as inconsistent interpreter availability, fragmented healthcare delivery, and intersecting social determinants including immigration status and socioeconomic deprivation. Psychological impacts include heightened anxiety, depression, and mistrust, which further hinder engagement with healthcare services. Structural and provider-level obstacles, including insufficient training and resource constraints, exacerbate inequities in care provision. Interventions encompassing legislative mandates for certified interpreter services, integration of cultural competence, technology-assisted interpretation, and community-based education demonstrate promise but require sustained funding and systemic embedding to achieve equitable maternal and neonatal health outcomes. Future efforts must prioritize comprehensive evaluation of language proficiency measures, disaggregated analysis of interpretation modalities, and longitudinal tracking of clinical and psychosocial endpoints to inform policy and practice reforms that address linguistic exclusion as a core determinant of maternal-child health equity globally.

Keywords

Language Barriers, Prenatal Care, Perinatal Outcomes

1. Introduction

Language barriers in maternal healthcare are a consistent determinant of inequities in prenatal access and outcomes. Limited proficiency in the host country's language delays care engagement, reduces the quality of provider-patient communication, and compromises adherence to clinical guidance. For the purposes of this review, *limited language proficiency* refers to self-reported difficulty in understanding or communicating in the host country's dominant language within medical contexts, a definition consistent with previous studies that use self-assessed proficiency or duration of residence as proxy indicators. These gaps are not trivial; they are linked to higher obstetric complications, reduced use of preventive services, and poorer perinatal mental health outcomes. Women with limited language skills frequently misunderstand medical advice or fail to access essential resources, increasing risks of preterm birth and low birth weight [1].

The problem extends beyond the clinical encounter. Immigrants often face systemic barriers such as lack of interpretation services, ineligibility for public programs, and insufficient insurance coverage [2]. Discrimination based on language or perceived immigration status further erodes trust and deters care-seeking, with consequences for maternal morbidity and infant survival [3].

Maternal mental health is particularly vulnerable. Inability to communicate with providers fosters isolation and fear, especially in hostile environments, discouraging healthcare use [3]. This loss of trust undermines continuity of care at a time when consistent engagement is most critical. Reports from Amnesty International highlight disproportionate mistreatment—verbal abuse, coercion, or neglect—among linguistically or ethnically marginalized patients during childbirth, reinforcing cycles of avoidance and under-utilization of maternity services [4].

Many women with limited proficiency initiate care after the first trimester, missing critical opportunities for early risk modification [1]. Delayed entry is associated with preventable complications and greater reliance on emergency services [5]. This challenge spans high- and middle-income countries. In Canada, qualitative studies reveal how language limitations and unfamiliarity with healthcare processes create invisible but rigid barriers, from appointment booking to test interpretation [6]. Experts emphasize the need for systematic integration of professional interpreters and collection of acculturation data, though implementation remains inconsistent despite policy guidance [7].

Addressing these disparities requires multifaceted interventions. Promising models include bilingual outreach workers, telephonic interpretation, conditional cash transfers to offset transportation barriers, and home-based perinatal support in rural areas [1]. Still, gaps persist, often due to budgetary constraints or misconceptions about interpreter use. Reliance on ad hoc family translation undermines both accuracy and confidentiality. Unless linguistic accessibility becomes a standard feature of prenatal care rather than an optional service, inequities will continue [2].

Globally, socio-linguistic exclusion remains under-addressed compared to de-

terminants like income or education, despite its clear impact on outcomes. Policies mandating interpreter provision and culturally adapted care could improve engagement but require sustained political commitment; otherwise, progress often fades once pilot funding ends [1]. While descriptive studies are abundant, rigorous longitudinal trials linking language-access interventions to perinatal outcomes are scarce.

Overall, language barriers shape prenatal trajectories directly, by limiting comprehension, and indirectly, through socio-economic marginalization. Tackling them is central to reducing disparities in maternal-child health. Without targeted investment and integrated planning, preventable obstetric complications will remain unevenly distributed along linguistic lines.

2. Characterizing Language Barriers in Healthcare

Language barriers in healthcare extend beyond the inability to speak or understand the dominant language. They manifest before, during, and after clinical encounters, affecting appointment scheduling, comprehension of diagnostic information, and follow-up care. These barriers operate at procedural, relational, and systemic levels, intertwining with social determinants to create compounded disadvantages for non-native or limited-proficiency speakers [8].

A key distinction is between conversational fluency and functional medical communication. Migrant women may manage daily interactions yet lack the vocabulary or confidence to engage in biomedical discussions, leading to misunderstandings about screenings, interventions, or postpartum care [9]. When combined with differing cultural beliefs around maternity, this gap can foster mistrust and disengagement from services [6]. Time-limited consultations further exacerbate the problem, often reducing explanations and weakening shared decision-making. Many women report feeling excluded from their birth plans, reflecting both inconsistent interpreter provision and reliance on family members that compromise accuracy and confidentiality [8] [9].

Language barriers also intersect with insurance status, geography, and employment conditions, magnifying inequities. For undocumented women, fear of institutional contact and difficulty navigating eligibility criteria may delay prenatal care, limiting early detection of complications such as gestational hypertension or diabetes [10] [11]. Psychosocial consequences are significant. Limited proficiency correlates with poorer communication and increased postpartum depressive symptoms, even after adjusting for socioeconomic status. Mechanisms include frustration, isolation, and lack of accessible informational support [12].

From a global perspective, definitions of “language barriers” must capture individual proficiency, institutional accommodation, relational dynamics, temporal continuity, and intersectional disadvantages. Operationalizing these components—through validated scales and patient narratives—would enable more precise measurement of their role in maternal-child outcomes and help identify effective intervention points [6] [8].

3. Theoretical Models Linking Language to Health Outcomes

Multiple frameworks have been applied to explain how language proficiency interacts with healthcare systems to shape maternal outcomes, each varying in utility depending on whether analysis centers on individual determinants, system processes, or their intersection. Phillippi's motivation-facilitation theory conceptualizes that patient-level motivators (e.g., valuing prenatal visits) must align with facilitators (e.g., interpreter availability, culturally adapted materials) for care uptake. Language thus acts both as a motivator, by enhancing perceived relevance when information is understood, and as facilitator, by enabling navigation through the system. Its strength lies in clinical adaptability, though it risks underestimating structural barriers if facilitators are defined too narrowly [13].

Sword's adaptation of Donabedian's structure-process-outcomes model situates language within quality-of-care assessments. "Structure" includes interpreter staffing or multilingual signage; "process" examines whether needs are identified and addressed through trained interpreters; and "outcomes" encompass biomedical results and patient satisfaction. Evidence shows that even robust interpretation infrastructure may fail if processes are poorly integrated, explaining why mandated interpreter services sometimes yield inconsistent gains [14].

At the macro level, vulnerability theory reframes language barriers as both an exposure and an amplifier of other disadvantages, such as insurance gaps or legal precarity [2]. Its value lies in highlighting compounded risks, though operationalization is difficult without isolating language-specific effects. Related approaches, such as staged regression models, help disentangle language from confounders like migration history, clarifying whether interventions should target pre-migration education or post-migration service adaptation [15] [16]. Each framework offers distinct insights for intervention design. *Phillippi's motivation-facilitation theory* highlights the need to align individual motivation with enabling system supports—such as interpreter availability or culturally tailored education—to enhance prenatal engagement. *Sword's adaptation of Donabedian's structure-process-outcomes model* emphasizes embedding language access into measurable quality indicators, ensuring that interpreter use and communication quality are routinely monitored. Finally, *vulnerability theory* underscores the importance of addressing compounding disadvantages—like legal precarity or socioeconomic deprivation—through structural reforms that integrate linguistic accessibility into broader social protection policies [16] [17].

4. Global and Regional Perspectives on Prenatal and Perinatal Care

Cross-national analyses of prenatal and perinatal care reveal a persistent disjunction between policy ideals of universality and the lived realities of migrant populations, particularly where language barriers intersect with structural characteristics of healthcare delivery. In some jurisdictions of Portugal, legislative frameworks provide universal free access to maternity services irrespective of migration

status; however, operational access still depends heavily on primary care gatekeeping and referral systems that presuppose both patient awareness and linguistic competence [12]. The clinical implication is that formal entitlement does not guarantee timely entry into prenatal pathways if initial contact points lack mechanisms to identify and address communication deficits early in gestation. By contrast, countries without universal coverage often impose financial or eligibility restrictions that combine with language obstacles to delay or prevent care use entirely, exacerbating risks from undiagnosed maternal complications. High-income nations with established migrant-hosting histories illustrate a different challenge. For example, in Switzerland, although most aspects of maternity care are reimbursed through insurance and clinical standards remain high, service fragmentation poses substantial barriers for allophone women, that is, migrants who do not speak any official language [18]. Sequential handovers between obstetricians, midwives, hospital teams, and community-based counsellors require repeated navigation of unfamiliar processes; each interface becomes a potential communication fault line when interpretation is inconsistent. The fragmentation undermines continuity that is clinically important for detecting pregnancy complications trending over time rather than at isolated visits [18] [19].

In contexts where data on maternal demographics include indicators like country of birth and length of residence, migrant women show disproportionately higher odds of inadequate prenatal [19]. Moreover, in regions implementing restrictive immigration enforcement policies, such as local enactments of the US 287(g) program, research documents delayed initiation or reduced adequacy of prenatal visits among Latina migrants, underscoring how macro-level political climates modulate individual-level health behaviors through fear-mediated avoidance [3]. The prevalence of language-related disadvantage varies with migration patterns but recurs across geographies with high foreign-born fertility rates. In Switzerland for instance, up to 25% of first-generation non-European migrant mothers report no proficiency in a national language [18].

This creates sustained institutional demand for interpreter-mediated encounters across multiple settings from preconception counseling to postpartum care. Yet interpreter coverage remains uneven outside specialized clinics; even in facilities serving large immigrant populations, interpreters may be limited to certain appointment types or hours. The operational constraint here has direct implications: patients attempting to schedule blood tests or mental health consultations without linguistic mediation may fail to complete necessary screenings entirely [8].

Technological interventions such as telephonic and video interpretation offer potential scalability across regions lacking dense professional interpreter networks. Clinical evaluations indicate high satisfaction levels among both providers and patients using these modalities in US perinatal settings. From a systems perspective, they mitigate geographic inequities by enabling immediate access to rare language competencies without requiring physical co-location. Yet their effective-

ness still hinges on provider willingness to use them rather than defaulting to ad hoc solutions like family member translation, a practice associated with compromised accuracy and ethical risks in sensitive contexts including reproductive health counseling [20] [21].

5. Maternal and Perinatal Risks Associated with Language Barriers

Clinical Risks for Mothers

Clinical risks for mothers linked to language barriers extend beyond delayed prenatal entry and involve missed diagnostics, inappropriate interventions, and psychosocial stress. Epidemiologic studies show that women unable to communicate effectively with providers initiate care later, reducing opportunities for early detection of high-risk conditions like gestational diabetes or preeclampsia [11]. In the PreCARE cohort, for instance, migrant women with language barriers had nearly twice the odds of inadequate prenatal care compared with fluent counterparts (adjusted OR = 1.9, 95% CI 1.4 - 2.6) [15]. This compresses the preventive window, shifting care toward acute management. Even minor complications may escalate to severe morbidity when initial engagement is fragmented.

Provider-side limitations also contribute. Maternal death audits reveal that delayed recognition of warning signs and inadequate responses are key drivers of preventable mortality. When patient articulation is constrained, early indicators of emergencies such as hemorrhage, embolism, or sepsis may be overlooked, delaying escalation. For migrant women, linguistic exclusion often coincides with discrimination or coercion, with reports of verbal abuse and disregard for birth preferences [4]. These experiences, beyond their psychological toll, can physiologically affect pregnancy through stress-mediated pathways associated with hypertensive disorders and altered immune function.

Mental health represents another critical pathway. Limited language proficiency strongly correlates with perinatal depression, yet inadequate screening without language support yields false negatives. Untreated, perinatal depression poses significant risks, with pregnancy-associated suicide now rivaling hemorrhage and eclampsia as leading causes of maternal mortality in some datasets [1] [12].

Language barriers also undermine prenatal monitoring, leading to missed detection of IUGR or oligohydramnios, which then manifest as intrapartum complications requiring emergency cesarean—procedures linked to poorer outcomes compared to planned delivery. Evidence from Portugal shows that migrant women with limited local language proficiency received less psychosocial screening despite similar baseline obstetric risk, reflecting both logistical gaps and provider triage decisions under time pressure [12] [17].

System fragmentation multiplies risk. Migrant women navigating between clinics, labs, and hospitals face repeated breakdowns in information transfer when interpretation is inconsistently available [6]. Even strong hospital-based services

cannot offset earlier or post-discharge failures. Cultural factors further complicate risk management: women declining interventions for cultural reasons without full biomedical comprehension may be labeled “noncompliant,” reducing provider vigilance rather than prompting adapted counseling [22].

Collectively, these mechanisms—ranging from distorted history-taking to fragmented coordination of care—show how language barriers elevate maternal risk independent of obstetric baseline [14]. Effective solutions require consistent interpretation at every touchpoint, culturally congruent counseling, and institutional safeguards to ensure both medical and psychological warning signs are acted upon. Without such systemic integration, preventable morbidity will persist disproportionately among linguistically marginalized mothers despite broader advances in perinatal care.

Perinatal and Neonatal Risks

Inadequate prenatal screening and delayed detection of complications narrow opportunities to prevent preterm birth or low birth weight [5]. Linguistic discordance has been associated with higher preterm delivery rates, independent of socio-demographic factors, largely due to unmanaged maternal conditions such as hypertension, diabetes, or infection [19]. In one population-based analysis from Canada, limited language proficiency was linked to a 1.6-fold increase in preterm birth risk and a 2.1-fold increase in low birth weight, even after adjustment for socioeconomic status and parity [5]. Canadian cohort data confirm that inadequate prenatal care—more frequent among linguistically excluded women—is associated with stillbirth, small-for-gestational-age births, and early neonatal mortality, even after adjusting for confounders. These reflect cumulative missed surveillance, where growth restriction or anomalies remain undetected until too late for elective intervention [5].

Consequences extend into the neonatal period. Infants of mothers facing language barriers experience higher NICU admission rates, often for conditions like respiratory distress or hypoglycemia tied to undiagnosed maternal disease. Postnatal continuity also suffers: lower immunization coverage by age one and short interpregnancy intervals—linked to poor contraceptive counseling—further compound risks across reproductive cycles [5]. Cultural practices, when not addressed through effective interpretation, may conflict with biomedical guidance, for instance in jaundice monitoring, delaying care for conditions requiring urgent intervention [6].

Risks are magnified in rural populations where interpreter-supported transfers and neonatal emergency care are harder to secure, prolonging transport and limiting timely intervention [5]. Reliance on informal interpreters after discharge further undermines recognition of neonatal warning signs. Psychosocial dimensions add another layer. Language barriers heighten maternal depression risk, which in turn compromises bonding, breastfeeding, and responsive caregiving—factors critical for early neurodevelopment [12] [23]. Ultimately, unresolved language barriers sustain cycles of preventable neonatal harm that evolve into population-

level burdens, including developmental delays, special education needs, and persistently higher infant mortality [19].

6. Access and Utilization of Prenatal and Perinatal Services

Entry into prenatal and perinatal care for linguistically marginalized women is shaped by institutional, interpersonal, and individual barriers that often act synergistically to delay or deter first contact. These barriers intersect with broader structural determinants such as immigration status, socioeconomic deprivation, and settlement trajectories. Evidence shows delayed initiation of care among migrants not fluent in the host-country language, driven by uncertainty about entitlement, complex registration, and fear of discrimination. For undocumented women, concerns about detection or medical debt may result in complete avoidance of formal care [10] [24].

Economic constraints compound communication gaps. Migrants lacking eligibility for public assistance may need to finance insurance or consultations independently [18]. These burdens are intensified when billing structures are incomprehensible without translation. Even subsidized clinics remain underused when outreach fails to reach non-dominant language groups [10]. Geographic inequities add further barriers: rural migrants face longer travel to facilities with language resources, and fixed interpreter schedules often exclude them from early diagnostic windows [8]. Such constraints make first-trimester benchmarks for adequate care systematically harder to attain [13].

Social networks play a dual role: while peers can facilitate orientation, they can also propagate misinformation about eligibility or safety in restrictive policy climates [3]. Institutional cultures reinforce access gaps when frontline staff lack training to anticipate language needs, leading to wasted visits where no substantive consultation occurs. Recent arrivals with very limited proficiency are at particularly high risk of dropping out of intake processes [9]. Even studies offering interviews in preferred languages report higher attrition among low-proficiency participants, underscoring how bureaucratic requirements outside the research context remain overlooked barriers [7].

Globally, language discordance does not act as a discrete obstacle but amplifies every other resource constraint at the point of entry. Its persistence across different healthcare systems underscores its systemic nature.

7. Influence of Cultural and Linguistic Factors

Cultural and linguistic dimensions intersect to shape maternal healthcare uptake and outcomes, influencing care quality even after initial contact. Linguistic discordance often amplifies cultural incongruities, creating misinterpretations not only of words but also of intent, values, and decision-making frameworks [6]. In perinatal care, this is evident in negotiations over birth plans or interventions, where biomedical urgency may conflict with tradition-based beliefs. Without skilled intercultural mediation, literal translation can result in passive acquiescence or re-

sistance misread as non-compliance, both of which compromise maternal and neonatal safety [8]. Interpreter dynamics illustrate this interplay. Some women prefer interpreters who match their gender, community affiliation, or social distance to ensure anonymity; if unmet, disclosure of sensitive information such as domestic violence or reproductive history may be inhibited. Family interpreters, particularly in patriarchal contexts, may filter or omit topics deemed inappropriate, concealing critical gynecologic or psychosocial risks [14] [25]-[27]. By contrast, professional language concordance has been linked to higher informed consent comprehension and adherence. Yet language alone is insufficient: a bilingual provider unfamiliar with postpartum confinement practices may miss nutritional or psychiatric risks despite fluent communication. Thus, language concordance without cultural competence risks a false sense of adequacy [21].

Patterns of prenatal engagement reflect these combined influences. Women from regions where maternity care models differ—e.g., midwife-led home births—may disengage when local hospital-centered services are presented without cultural framing [18]. Socio-cultural norms also shape symptom expression. Somatic idioms of distress common in migrant groups may be translated literally but stripped of socio-cultural meaning, leading to under-recognition of conditions such as perinatal depression or anxiety. This helps explain disparities in mental health screening coverage among linguistically marginalized mothers, despite similar obstetric complication rates [6] [9].

8. Challenges in Delivering Prenatal Care to Linguistically Diverse Populations

Clinical providers in prenatal and perinatal care face operational, relational, and cognitive challenges when caring for women with limited host-country language proficiency. These challenges, rooted in structural deficits, manifest as constraints on diagnostic accuracy, therapeutic alliance, and adherence to protocols. A key issue is the added cognitive and temporal load of interpreter-mediated encounters. Consultations take longer, yet scheduling systems rarely adjust for this [1]. Time compression often forces providers to truncate history-taking or education, risking omission of subtle but clinically significant details. Insufficient training in interpreter use compounds this: many clinicians lack structured experience in integrating interpreters, leading to fragmented dialogue, reduced patient engagement, and weakened rapport. Trust formation is particularly fragile if providers direct communication mainly to the interpreter, discouraging disclosure of sensitive histories [2] [6].

Interpreter preferences add complexity. Some women require interpreters matching gender or cultural background; when unmet, disclosure on topics such as domestic violence or contraception may be withheld. Reliance on untrained family members introduces high omission and distortion rates, leaving providers with unreliable information and moral distress [14] [27].

Balancing biomedical urgency with cultural negotiation is another challenge.

For example, a patient declining induction for preeclampsia may be framed as “non-compliant” rather than exercising culturally influenced informed refusal [6]. Such misattributions risk biasing provider attitudes toward future patients. Informed consent is especially vulnerable: under time pressure, interpreter-mediated explanations of cesarean or operative delivery risks are often oversimplified, undermining ethical and medico-legal standards [20].

Systemic variability in remote interpretation further complicates care. While telephonic and video modalities can expand access, clinicians often perceive them as impersonal or cumbersome, and uptake remains inconsistent without institutional training and normalization. This perpetuates reliance on informal, less accurate channels [8] [21].

Implicit bias also shapes interactions. Providers may unconsciously simplify communication or withhold complex options when linguistic discordance intersects with stereotypes about adherence or comprehension, narrowing the scope of care [26]. Psychosocial screening poses particular difficulty. Instruments for perinatal depression or intimate partner violence require culturally validated translation; without them, false negatives are common. Providers must choose between acting on incomplete tools or their clinical impression, either option carrying risk [6] [28].

9. Strategies to Improve Access and Quality of Care

Medical Interpreter Services

Interpreter services in prenatal and perinatal care demonstrate clear clinical value but face persistent operational and structural challenges. Where language barriers limit comprehension of diagnoses, treatment, and self-care, trained interpreters are linked to better outpatient follow-up, higher prescription adherence, and patient satisfaction comparable to language-concordant care [14]. Recent integrative reviews confirm that professional interpreter services significantly improve communication accuracy, clinical decision-making, and patient satisfaction across multiple healthcare settings [29]. Yet these benefits depend on interpreter quality, consistent use, and workflow integration. Reliance on untrained bilingual staff or family members introduces omissions, distortion, and confidentiality breaches, risks especially consequential in maternity care where subtle symptom changes may signal emergencies like preeclampsia or preterm labor [17].

Mode of delivery matters. On-site interpreters foster trust, cultural negotiation, and accurate psychosocial assessment, but are often unavailable for uncommon languages or outside routine hours. Remote modalities address this gap: telephonic services provide rapid access but miss non-verbal cues, while video interpretation restores visual communication and can connect to trained interpreters within seconds [21].

Quality extends beyond linguistic accuracy to cultural brokerage. Interpreters who contextualize patient responses—for instance, reluctance toward induction tied to cultural beliefs—can help providers reframe recommendations effectively.

Yet accreditation rarely mandates this competency. Training programs incorporating cultural mediation would better align services with maternal behavior and adherence [6].

Provider training is equally critical. Without guidance on best practices (e.g., addressing patients directly), clinicians may inadvertently marginalize women's voices. Training not only improves immediate communication but also increases provider reliance on certified interpreters over unsafe alternatives [26] [27].

Technology-Driven Solutions

Technology-based approaches to overcoming language barriers in prenatal and perinatal care are often framed as scalable alternatives to traditional interpreter models, yet their effectiveness depends on operational, cultural, and structural integration. Remote interpretation modalities—telephonic and video remote interpreting (VRI)—are the most widely adopted when on-site interpreters are unavailable. Their key advantage is near-instantaneous access across languages, reducing delays in obstetric emergencies where decisions must be made within minutes. Still, interaction quality hinges not only on connection speed but also on rapport and comprehension. Audio-only channels lack non-verbal cues essential for trust and understanding, particularly during labor when patients may be in pain or distress [21].

Implementation is frequently undermined by provider reluctance. In systems without standardized workflows that embed interpreter access into EHRs or intake protocols, use depends on individual initiative. This discretionary model risks inequities, as linguistically excluded women benefit only when providers actively engage services. Training in streamlined telephonic and VRI use can reduce resistance but requires investment in digital literacy and hardware, especially in bandwidth-limited rural clinics [8].

AI-powered machine translation adds another layer of possibility. These tools offer low-cost, continuous coverage and may be useful for basic communication—appointment reminders, simple medication instructions—freeing human interpreters for complex interactions [26]. Yet risks remain substantial when applied to clinical dialogue: AI often mishandles idioms, cultural nuance, and dialectal variation, raising the chance of clinically dangerous misinterpretations in consent or diagnosis. Without strict governance defining safe versus unsafe contexts, over-reliance on automation threatens patient safety [2] [6].

Hybrid approaches may prove most effective. AI triage tools integrated into patient-facing apps could flag language needs early and automatically trigger interpreter scheduling through EHRs, reducing delays that jeopardize prenatal screenings. Automated bilingual documentation could improve retention of care instructions without adding provider workload. However, these models require safeguards to prevent inappropriate substitution of human cultural mediation [8] [21].

Evaluation of these interventions must extend beyond process metrics (e.g., connection times) to outcome measures such as maternal morbidity, preterm

birth, or NICU admission. Stratifying by gestational stage at first mediated contact is critical, since preventive benefits hinge on early entry into care, itself influenced by upstream structural barriers.

Community Engagement and Education

Strengthening community engagement in maternal health for linguistically diverse populations requires shifting from episodic outreach to sustained, bidirectional relationships. Evidence shows that interventions fail when socio-linguistic dynamics at the community level are overlooked, as awareness and trust are often built through local networks rather than formal health channels [2]. A core limitation of many initiatives is their unidirectional framing—information is “delivered” without mechanisms for communities to articulate priorities or cultural frameworks. This imbalance fosters message rejection, particularly where biomedical recommendations conflict with local norms, such as undervaluation of prenatal care in the absence of acute illness [6].

Culturally and linguistically concordant community health workers (CHWs) can bridge this gap. Unlike ad hoc translators, CHWs operate continuously as cultural brokers, clarifying logistics, mitigating mistrust, and reinforcing preventive messages over repeated interactions. Their integration into care pathways is critical to ensure information flows both ways and to avoid contradictory messaging. Educational content must also be contextually adapted: direct translation risks embedding dominant cultural assumptions, whereas community co-design fosters relevance and reciprocity. For instance, dietary guidance framed within traditional postpartum food practices is more likely to achieve adherence [3].

Clinically, community engagement impacts modifiable antenatal risks: early prenatal initiation, comprehension of screening, and recognition of warning signs. Digital platforms can be complementary if tailored to diverse literacy levels. Audio-visual modules in minority languages, coupled with facilitated community sessions, allow patients to revisit accurate content while contextualizing it culturally [21].

Policy and Health System Reforms

Reforming policy and health systems to address linguistic inequities in maternal care requires moving beyond rhetorical commitments toward enforceable, outcome-oriented mechanisms embedded across governance, financing, and service delivery. A recurrent weakness in existing frameworks is that language access is treated as an optional adjunct rather than mandatory clinical infrastructure. This framing enables selective implementation, particularly under fiscal pressure, with interpreter deployment rationed to “exceptional” consultations while routine surveillance proceeds without mediation [8]. The result is predictable: even where antenatal services are insured, women with limited proficiency in the dominant language are more likely to initiate care late and receive inadequate monitoring [19].

Dismantling entrenched linguistic inequities in maternal healthcare requires an interlocking reform architecture: legislative mandates, stable financing, standard-

ized workflows, certified quality control, intercultural training, outcome monitoring, calibrated technology policies, protective entitlement statutes, and system adaptability. Only by embedding these elements into routine governance can maternal health systems deliver equitable outcomes across language groups globally.

This review has several limitations. Because the included evidence draws primarily from published studies, publication bias cannot be excluded. The heterogeneity of study designs, populations, and outcome measures limits direct comparability and may influence the magnitude of reported associations. Furthermore, as this work followed a narrative rather than a systematic review approach, the synthesis may not capture all relevant data, though efforts were made to include the most representative and methodologically robust studies available.

10. Conclusions

Language barriers are a structural determinant of maternal and perinatal inequities, operating through miscommunication, delayed detection of complications, fragmented care, and heightened psychosocial stress. These barriers persist across diverse health systems, even where maternity care is legally guaranteed, and are compounded by restrictive immigration policies, inconsistent interpreter use, and cultural incongruence.

Effective solutions require treating language access as core clinical infrastructure, not a discretionary add-on. This entails enforceable legislative mandates, sustainable financing models, and standardized workflows—such as EHR triggers for interpreter use—paired with rigorous quality assurance that excludes untrained ad hoc interpretation. Integrating cultural competence with linguistic mediation is essential to ensure recommendations are both understood and acceptable.

Technology, including remote interpretation and AI-assisted tools, can expand reach but must be embedded within governance safeguards, provider training, and infrastructure investment to avoid new disparities. Community-based strategies, such as culturally concordant health workers and co-designed education initiatives, enhance trust, early engagement, and preventive care uptake.

Future reforms should be guided by outcome monitoring disaggregated by language proficiency, ensuring accountability for both process equity and maternal-perinatal health outcomes. Only through coordinated structural, clinical, technological, and community-based strategies can health systems move from fragmented interventions to sustainable equity in maternal healthcare delivery.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- [1] Osuide, J.O., Parsa, A.D., Mahmud, I. and Kabir, R. (2024) The Effect of Limited Access to Antenatal Care on Pregnancy Experiences and Outcomes among Undocumented Migrant Women in Europe: A Systematic Review. *Frontiers in Global Women's*

- Health*, **5**, Article 1289784. <https://doi.org/10.3389/fgwh.2024.1289784>
- [2] Cristancho, S., Garces, D.M., Peters, K.E. and Mueller, B.C. (2008) Listening to Rural Hispanic Immigrants in the Midwest: A Community-Based Participatory Assessment of Major Barriers to Health Care Access and Use. *Qualitative Health Research*, **18**, 633-646. <https://doi.org/10.1177/1049732308316669>
- [3] Rhodes, S.D., Mann, L., Simán, F.M., Song, E., Alonzo, J., Downs, M., *et al.* (2015) The Impact of Local Immigration Enforcement Policies on the Health of Immigrant Hispanics/Latinos in the United States. *American Journal of Public Health*, **105**, 329-337. <https://doi.org/10.2105/ajph.2014.302218>
- [4] Vedam, S., Stoll, K., Taiwo, T.K., Rubashkin, N., Cheyney, M., Strauss, N., *et al.* (2019) The Giving Voice to Mothers Study: Inequity and Mistreatment during Pregnancy and Childbirth in the United States. *Reproductive Health*, **16**, Article No. 77.
- [5] Heaman, M.I., Martens, P.J., Brownell, M.D., Chartier, M.J., Derksen, S.A. and Helewa, M.E. (2019) The Association of Inadequate and Intensive Prenatal Care with Maternal, Fetal, and Infant Outcomes: A Population-Based Study in Manitoba, Canada. *Journal of Obstetrics and Gynaecology Canada*, **41**, 947-959. <https://doi.org/10.1016/j.jogc.2018.09.006>
- [6] Higginbottom, G.M.A., Hadziabdic, E., Yohani, S. and Paton, P. (2014) Immigrant Women's Experience of Maternity Services in Canada: A Meta-Ethnography. *Midwifery*, **30**, 544-559. <https://doi.org/10.1016/j.midw.2013.06.004>
- [7] Hamwi, S., Lorthe, E. and Barros, H. (2022) Host-Country Language Proficiency and Migrant-Native Disparities in Prenatal Care Utilization: A Nationwide Study in Portugal. *Birth*, **49**, 474-485. <https://doi.org/10.1111/birt.12618>
- [8] Pandey, M., Maina, R.G., Amoyaw, J., Li, Y., Kamrul, R., Michaels, C.R., *et al.* (2021) Impacts of English Language Proficiency on Healthcare Access, Use, and Outcomes among Immigrants: A Qualitative Study. *BMC Health Services Research*, **21**, Article No. 741. <https://doi.org/10.1186/s12913-021-06750-4>
- [9] Hamwi, S., Lorthe, E., Severo, M. and Barros, H. (2023) Migrant and Native Women's Perceptions of Prenatal Care Communication Quality: The Role of Host-Country Language Proficiency. *BMC Public Health*, **23**, Article No. 295. <https://doi.org/10.1186/s12889-023-15154-4>
- [10] Bustamante, A.V., Fang, H., Garza, J., Carter-Pokras, O., *et al.* (2010) Variations in Healthcare Access and Utilization among Mexican Immigrants: The Role of Documentation Status. *Journal of Immigrant and Minority Health*, **14**, 146-155. <https://doi.org/10.1007/s10903-010-9406-9>
- [11] Eslier, M., Deneux-Tharoux, C., Sauvegrain, P., Schmitz, T., Luton, D., Mandelbrot, L., *et al.* (2020) Association between Migrant Women's Legal Status and Prenatal Care Utilization in the Precare Cohort. *International Journal of Environmental Research and Public Health*, **17**, Article 7174. <https://doi.org/10.3390/ijerph17197174>
- [12] Hamwi, S., Lorthe, E. and Barros, H. (2021) Language Proficiency and Migrant-Native Disparities in Postpartum Depressive Symptoms. *International Journal of Environmental Research and Public Health*, **18**, Article 4782. <https://doi.org/10.3390/ijerph18094782>
- [13] Fryer, K., Lewis, G., Munoz, C. and Stuebe, A.M. (2021) Identifying Barriers and Facilitators to Prenatal Care for Spanish-Speaking Women. *North Carolina Medical Journal*, **82**, 7-13. <https://doi.org/10.18043/ncm.82.1.7>
- [14] Flores, G. (2005) The Impact of Medical Interpreter Services on the Quality of Care: A Systematic Review. *Medical Care Research and Review*, **62**, 255-299.

- [15] Eslier, M., Deneux-Tharoux, C., Schmitz, T., Luton, D., Mandelbrot, L., Estellat, C., *et al.* (2023) Association between Language Barrier and Inadequate Prenatal Care Utilization among Migrant Women in the Precare Prospective Cohort Study. *European Journal of Public Health*, **33**, 403-410. <https://doi.org/10.1093/eurpub/ckad078>
- [16] Samkange-Zeeb, F., Samerski, S., Doos, L., Humphris, R., Padilla, B. and Bradby, H. (2020) “It’s the First Barrier”—Lack of Common Language a Major Obstacle When Accessing/Providing Healthcare Services across Europe. *Frontiers in Sociology*, **5**, Article 557563. <https://doi.org/10.3389/fsoc.2020.557563>
- [17] Ng, C. and Newbold, K.B. (2011) Health Care Providers’ Perspectives on the Provision of Prenatal Care to Immigrants. *Culture, Health & Sexuality*, **13**, 561-574. <https://doi.org/10.1080/13691058.2011.555927>
- [18] Origlia Ikhilor, P., Hasenberg, G., Kurth, E., Asefaw, F., Pehlke - Milde, J. and Cignacco, E. (2019) Communication Barriers in Maternity Care of Allophone Migrants: Experiences of Women, Healthcare Professionals, and Intercultural Interpreters. *Journal of Advanced Nursing*, **75**, 2200-2210. <https://doi.org/10.1111/jan.14093>
- [19] Heaman, M., Bayrampour, H., Kingston, D., Blondel, B., Gissler, M., Roth, C., *et al.* (2013) Migrant Women’s Utilization of Prenatal Care: A Systematic Review. *Maternal and Child Health Journal*, **17**, 816-836. <https://doi.org/10.1007/s10995-012-1058-z>
- [20] Sudhinaraset, M., Kolodner, R.A. and Nakphong, M.K. (2023) Maternity Care at the Intersections of Language, Ethnicity, and Immigration Status: A Qualitative Study. *Women’s Health Issues*, **33**, 618-625. <https://doi.org/10.1016/j.whi.2023.04.004>
- [21] Masland, M.C., Lou, C. and Snowden, L. (2010) Use of Communication Technologies to Cost-Effectively Increase the Availability of Interpretation Services in Healthcare Settings. *Telemedicine and e-Health*, **16**, 739-745. <https://doi.org/10.1089/tmj.2009.0186>
- [22] Sheedy, C. (2018) Speaking in Tongues: The Importance of Speaking Indigenous Languages in Maternal Health Care. In: Chavkin, W., *Maternal Death and Pregnancy-Related Morbidity among Indigenous Women of Mexico and Central America*, Springer, 51-61.
- [23] Bradby, H., Lindenmeyer, A., Phillimore, J., Padilla, B. and Brand, T. (2020) “If There Were Doctors Who Could Understand Our Problems, I Would Already Be Better”: Dissatisfactory Health Care and Marginalisation in Superdiverse Neighbourhoods. *Sociology of Health & Illness*, **42**, 739-757. <https://doi.org/10.1111/1467-9566.13061>
- [24] Heyman, J.M., Núñez, G.G. and Talavera, V. (2009) Healthcare Access and Barriers for Unauthorized Immigrants in El Paso County, Texas. *Family & Community Health*, **32**, 4-21. <https://doi.org/10.1097/01.fch.0000342813.42025.a3>
- [25] Ortega, A.N., Fang, H., Perez, V.H., Rizzo, J.A., Carter-Pokras, O., Wallace, S.P., *et al.* (2007) Health Care Access, Use of Services, and Experiences among Undocumented Mexicans and Other Latinos. *Archives of Internal Medicine*, **167**, Article 2354. <https://doi.org/10.1001/archinte.167.21.2354>
- [26] Truong, S., Foley, O.W., Fallah, P., Lalla, A.T., Osterbur Badhey, M., Boatman, A.A., *et al.* (2023) Transcending Language Barriers in Obstetrics and Gynecology: A Critical Dimension for Health Equity. *Obstetrics & Gynecology*, **142**, 809-817. <https://doi.org/10.1097/aog.0000000000005334>
- [27] Rayment-Jones, H., Harris, J., Harden, A., Silverio, S.A., Turienzo, C.F. and Sandall, J. (2021) Project20: Interpreter Services for Pregnant Women with Social Risk Factors in England: What Works, for Whom, in What Circumstances, and How? *International Journal for Equity in Health*, **20**, Article No. 233.

<https://doi.org/10.1186/s12939-021-01570-8>

- [28] Bauer, A.M. and Alegría, M. (2010) Impact of Patient Language Proficiency and Interpreter Service Use on the Quality of Psychiatric Care: A Systematic Review. *Psychiatric Services*, **61**, 765-773. <https://doi.org/10.1176/ps.2010.61.8.765>
- [29] Kwan, M., Jeemi, Z., Norman, R. and Dantas, J.A.R. (2023) Professional Interpreter Services and the Impact on Hospital Care Outcomes: An Integrative Review of Literature. *International Journal of Environmental Research and Public Health*, **20**, Article 5165. <https://doi.org/10.3390/ijerph20065165>