

**Health Impact Review of SB 5304
Testing individuals who provide language access to state services
(2023 Legislative Session)**

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Full review

The full Health Impact Review report is available at:

<https://sboh.wa.gov/sites/default/files/2023-02/HIR-2023-03-SB%205304.pdf>

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Executive Summary
SB 5304, Testing individuals who provide language access to state services
(2023 Legislative Session)

Evidence indicates that SB 5304 may limit the pool of DSHS certified medical interpreters, which would likely decrease access to professional medical interpretation services, worsen health outcomes, and increase health inequities for people who have a non-English language preference.

BILL INFORMATION

Sponsors: Saldaña, Nguyen, Nobles, Valdez, Wilson, C.

Summary of Bill:

- Requires the Department of Social and Health Services (DSHS) to develop and administer oral and written tests to ensure all language access providers are fluent in English and a primary non-English language.
- Outlines DSHS testing requirements to include evaluation of language competence, interpreting performance skills, understanding of the interpreter’s role, and knowledge of DSHS policies regarding confidentiality, accuracy, impartiality, and neutrality.
- Changes a requirement for when DSHS may offer spoken language interpreter testing.

HEALTH IMPACT REVIEW

Summary of Findings:

This Health Impact Review found the following evidence for relevant provisions in SB 5304:

Pathway 1: Testing requirements

- **Informed assumption** that requiring DSHS to develop and administer certain language access testing will limit the pool of medical interpreters certified by DSHS. This assumption is based on information from key informants and interpreter services contract fill rates.
- **A fair amount of evidence** that limiting the pool of medical interpreters certified by DSHS will decrease access to professional medical interpretation services for people who have a non-English language preference.
- **Strong evidence** that decreasing access to professional medical interpretation services will worsen health outcomes for people who have a non-English language preference.
- **Strong evidence** that worsened health outcomes will increase health inequities for people who have a non-English language preference.

Pathway 2: Statewide fill rate

- **Unclear evidence** how changing a requirement for when DSHS may offer spoken language interpreter testing may impact health and equity for people who have a non-English language preference.

Introduction and Methods

A Health Impact Review is an analysis of how a proposed legislative or budgetary change will likely impact health and health disparities in Washington State ([RCW 43.20.285](#)). For the purpose of this review ‘health disparities’ have been defined as differences in disease, death, and other adverse health conditions that exist between populations ([RCW 43.20.270](#)). Differences in health conditions are not intrinsic to a population; rather, inequities are related to social determinants (access to healthcare, economic stability, racism, etc.). This document provides summaries of the evidence analyzed by State Board of Health staff during the Health Impact Review of Senate Bill 5304 ([SB 5304](#)).

Staff analyzed the content of SB 5304 and created a logic model depicting possible pathways leading from the provisions of the bill to health outcomes. We consulted with experts and contacted key informants about the provisions and potential impacts of the bill. We conducted an objective review of published literature for each pathway using databases including PubMed, Google Scholar, and University of Washington Libraries. We evaluated evidence using set criteria and determined a strength-of-evidence for each step in the pathway. More information about key informants and detailed methods are available upon request.

The following pages provide a detailed analysis of the bill, including the logic model, summaries of evidence, and annotated references. The logic model is presented both in text and through a flowchart (Figures 1). The logic model includes information on the strength-of-evidence for each pathway. The strength-of-evidence has been established using set criteria and summarized as:

- **Very strong evidence:** There is a very large body of robust, published evidence and some qualitative primary research with all or almost all evidence supporting the association. There is consensus between all data sources and types, indicating that the premise is well accepted by the scientific community.
- **Strong evidence:** There is a large body of published evidence and some qualitative primary research with the majority of evidence supporting the association, though some sources may have less robust study design or execution. There is consensus between data sources and types.
- **A fair amount of evidence:** There is some published evidence and some qualitative primary research with the majority of evidence supporting the association. The body of evidence may include sources with less robust design and execution and there may be some level of disagreement between data sources and types.
- **Expert opinion:** There is limited or no published evidence; however, rigorous qualitative primary research is available supporting the association, with an attempt to include viewpoints from multiple types of informants. There is consensus among the majority of informants.
- **Informed assumption:** There is limited or no published evidence; however, some qualitative primary research is available. Rigorous qualitative primary research was not possible due to time or other constraints. There is consensus among the majority of informants.

- **No association:** There is some published evidence and some qualitative primary research with the majority of evidence supporting no association or no relationship. The body of evidence may include sources with less robust design and execution and there may be some level of disagreement between data sources and types.
- **Not well researched:** There is limited or no published evidence and limited or no qualitative primary research and the body of evidence was primarily descriptive in nature and unable to assess association or has inconsistent or mixed findings, with some supporting the association, some disagreeing, and some finding no connection. There is a lack of consensus between data sources and types.
- **Unclear:** There is a lack of consensus between data sources and types, and the directionality of the association is ambiguous due to potential unintended consequences or other variables.

This review was completed during the Legislative Session and was subject to the 10-day turnaround required in statute. This review was subject to time constraints, which influenced the scope of work for this review. The annotated references are only a representation of the evidence and provide examples of current research. In some cases, only a few review articles or meta-analyses are referenced. One article may cite or provide analysis of dozens of other articles. Therefore, the number of references included in the bibliography does not necessarily reflect the strength-of-evidence. In addition, some articles provide evidence for more than one research question, so are referenced multiple times.

Analysis of SB 5304 and the Scientific Evidence

Summary of relevant background information

- In scientific literature, a professional medical interpreter is defined as “[p]rofessional, qualified, hospital-trained and medical interpreters [...that...] have received training and have skills and experience that are accredited by professional bodies.”¹
- In 1987, the first Code of Ethics for medical interpreters was published by the International Medical Interpreters Association.²
 - In 1995, the first Medical Interpreting Standards of Practice were developed by the International Medical Interpreters Association and the Educational Development Center.²
- [RCW 74.04.025](#) requires the Department of Social and Health Services (DSHS), the Health Care Authority (HCA), and the Office of Administrative Hearings to ensure bilingual services are provided to non-English-speaking applicants and recipients of public services.³ Specifically, bilingual language services shall be provided in the person’s primary language “to the extent necessary to assure that [people] are not denied, or unable to obtain or maintain, services or benefits because of their inability to speak English.”³
 - “Primary languages” include but are not limited to Spanish, Vietnamese, Cambodian, Laotian, and Chinese.³
 - A “language access provider” is defined as “any independent contractor who provides spoken language interpreter services for state agencies, injured worker, or crime victim appointments through [Washington State Department of Labor & Industries (L&I)], or [M]edicaid enrollee appointments, or provided these services on or after January 1, 2009, and before June 10, 2010, whether paid by a broker, language access agency, or a state agency.”³ A manager or employee of a broker or a language access agency does not meet this definition.³
 - [2018 c 253](#) describes the intent of RCW 74.04.025. The described intent is “to centralize and consolidate the procurement of spoken language interpreter services and expand the use of language access providers, thereby reducing administrative costs while protecting consumers.”³
- [RCW 39.26.300](#) requires the Department of Enterprise Services (DES) to develop and implement a model for state agencies to procure interpreter services, and authorizes DSHS, HCA, the Department of Children Youth and Families (DCYF) and the Department of Labor and Industries (L&I) to purchase interpreter services for people who have a non-English language preference.⁴ DSHS, HCA, DCYF, and L&I are authorized to procure interpreter services through DES if the demand for spoken language interpreters cannot be met through their respective contracts.⁴
- [WAC 388-03](#) outlines the DSHS code of professional conduct for interpreters.
 - Section 4 states that interpreters must meet the minimum proficiency standards set by DSHS.⁵

- Section 12 states that interpreters are expected to continually develop their skills and knowledge through professional training, continuing education, and regular interaction with colleagues and specialists in related fields.⁵
- In the 1980’s, several lawsuits and complaints were filed against DSHS due to lack of equal access to services for people who have a non-English language preference. In response, the [Reyes Consent Decree \(1991\)](#) was signed as part of a settlement with the Office for Civil Rights Region X of the U.S. Department of Health and Human Services (HHS).⁶ Among other stipulations, the consent decree required that DSHS establish guidelines and statewide policy for testing bilingual staff and contracted interpreters.⁶
 - In 1991, DSHS created the Language Testing and Certification (LTC) program to develop systems, methods, procedures, and policies in carrying out the legal commitment outlined in the Reyes Consent Decree.⁷
 - At that time, Washington State Medicaid programming and various state programming for children were housed under DSHS.⁷
- In 1995, Washington State became the first state to certify interpreters.²
 - DSHS currently provides language testing and certification for Medical Interpreters, Social Service Interpreters, Document Translators, and DSHS Bilingual Employees.⁸
- In 2010, [ESSB 6726](#) was passed, which granted American Federation of State, County and Municipal Employees (AFSCME) Council 28 union rights for contracted interpreters, referred to as Interpreters United.⁹
 - Interpreters United is recognized as the sole and exclusive representative of Language Access Providers who provide spoken language interpreter services for DSHS, DCYF, and HCA Medicaid (Apple Health) enrollee appointments.⁷
- In 2012, at the direction of the legislature, HCA procured a single coordinating entity to provide spoken language interpreter services for Apple Health and DSHS clients (personal communication, HCA, February 2023). The collective bargaining agreement (CBA) was established between spoken interpreters and the Governor of Washington State.¹⁰ DCYF was later added to this CBA (personal communication, HCA, February 2023).
- The federal government has established requirements for meeting the needs of people with limited English proficiency (LEP)^a and recommended standards for effective language access. Federal laws include:
 - Title VI of the Civil Rights Act of 1964 “requires recipients of Federal financial assistance to take reasonable steps to make their programs, services, and activities accessible by eligible persons with [LEP].”¹¹
 - In 2000, the President signed Executive Order 13166 “Improving Access to Services for Persons with Limited English Proficiency”, which requires federal

^a The federal government defines “Limited English Proficiency” (LEP) to include people 5 years or older who self-identify as speaking English less than “very well.”³⁵ Language access advocates stated that LEP is not preferred language as it implies deficiency.⁴⁰ This HIR will retain the use of LEP when necessary to refer to federal programs or data and will use patient-centered language “people who have a non-English language preference” more generally.⁴⁰

agencies to “examine the services they provide, identify any need for services to those with [LEP], and develop and implement a system to provide those services so LEP persons can have meaningful access to them.”¹² Further, the guidance states that recipients of federal financial assistance comply to ensure that their programs and activities provided in English are also accessible to people with LEP.¹²

- HHS lists recipients of federal financial assistance.¹³ For example, an agency receiving federal funds for any part of its operation is required to provide meaningful language access services at no cost to people with LEP at all points of service.¹⁴ To provide language access services means that “all parties are provided with high quality spoken and written language communications which allow them to comfortably discuss the patient’s health and health care – to ensure meaningful access to services.”¹⁴ Language access must also be provided to those responsible for the patient’s care (e.g., parents, guardians, relatives, other caretakers).¹⁴
- In 2004, HHS developed standards for Culturally and Linguistically Appropriate Services in Health and Health Care (CLAS), with updates in 2014.¹⁴ CLAS “refers to services that are respectful of and responsive to individual cultural health beliefs and practices, preferred languages, health literacy levels, and communication needs.”¹⁵
- Section 1557 of the 2010 Patient Protection and Affordable Care Act (ACA) prohibits recipients receiving federal financial assistance from using criteria or methods of administration that effectively discriminate against race, color, or national origin, or substantially impairs a program’s objective as it pertains to people of a particular race, color, or national origin.¹¹ The final rule of the ACA “makes clear that the prohibition on national origin discrimination requires covered entities to take reasonable steps to provide meaningful access to [people with LEP] [...]”¹⁶
- HHS’ Healthy People 2030 Initiative includes a health communication goal to “increase the proportion of [adults with LEP] who report that their doctors or other health providers always explained things in a way that was easy to understand.”¹⁷

Summary of SB 5304

- Requires DSHS to develop and administer oral and written tests to ensure that all language access providers are fluent in English and a primary non-English language.
- Outlines DSHS testing requirements to include evaluation of language competence, interpreting performance skills, understanding of the interpreter’s role, and knowledge of DSHS policies regarding confidentiality, accuracy, impartiality, and neutrality.
- Changes a requirement for when DSHS may offer spoken language interpreter testing.

Health impact of SB 5304

Evidence indicates that SB 5304 may limit the pool of DSHS certified medical interpreters, which would likely decrease access to professional medical interpretation services, worsen health outcomes, and increase health inequities for people who have a non-English language preference.

Pathway to health impacts

The potential pathway leading from the provisions of SB 5304 to decreased health inequities are depicted in Figure 1.

Pathway 1: Testing requirements

This review makes the informed assumption that requiring DSHS to develop and administer certain language access testing will limit the pool of DSHS certified medical interpreters. This informed assumption is based on information from key informants and data available on interpreter services contract fill rates.¹⁸ There is a fair amount of evidence that limiting the pool of medical interpreters certified by DSHS will decrease access to professional medical interpretation services for people who have a non-English language preference.¹⁹⁻²² There is strong evidence that decreasing access to professional medical interpretation services will worsen health outcomes^{1,23-31} and increase health inequities for people who have a non-English language preference.^{23,28,31,32}

Pathway 2: Statewide fill rate

There is unclear evidence how changing a requirement for when DSHS may offer spoken language interpreter testing may impact health and equity for people who have a non-English language preference.

Scope

Due to time limitations, we only researched the most direct connections between the provisions of the bill and health equity and did not explore the evidence for all possible pathways. For example, we did not evaluate potential impacts related to:

- The breadth of interpretation services provided. Under RCW 74.04.025, state interpreter services must be provided for recipients of public assistance, injured workers and crime victim appointments.³ Key informants stated that the most immediate and extensive impacts of SB 5304 would be on medical interpreters, as DSHS' medical interpreter test is the only test that DSHS is currently not providing in-house (personal communication, DSHS, January 2023). DSHS still provides and maintains testing for social service interpreters in-house (personal communication, DSHS, January 2023). In addition, key informants who work with HCA Apple Health Interpreter Services stated that 92% of interpretation requests coordinated under the CBA are from Medicaid providers requesting medical interpreters (personal communication, HCA, January 2023). Therefore, this HIR focused primarily on professional medical interpretation services.
- The ways in which changes to the pool of DSHS certified medical interpreters may impact job opportunities for interpreters or availability of interpreters by geographical location. Some key informants stated that state-contracted in-person interpretation jobs are accepted less often in more rural areas, which may contribute to disproportionate rates of access to interpreters by geography (personal communications, January 2023). This

HIR did not explore rates of medical interpreter job completion by geography and ways SB 5304 may change these rates.

Magnitude of impact

SB 5304 would impact medical interpreters who provide language access to state services and people who have a non-English language preference seeking public services in Washington State.

Medical interpreters

Records from DSHS' LTC Program indicate that there are 2,459 DSHS certified medical interpreters in Washington State (personal communication, DSHS, February 2023). DSHS certified medical interpretation is provided in 6 languages (Spanish, Cantonese Chinese, Mandarin Chinese, Korean, Russian, and Vietnamese) (personal communication, DSHS, February 2023). Speakers of all non-certified languages receive authorization rather than certification (personal communication, DSHS, February 2023). The majority (45.3%) of DSHS certified medical interpreters list their primary county of work as King County, with 11.7% listing Snohomish County, 9.4% Pierce County, and 5.3% Clark County (personal communication, DSHS, February 2023). There are 10 Washington counties (out of 39 total counties) that do not have any DSHS certified medical interpreters listing the county as their primary county of work (Asotin, Columbia, Garfield, Lincoln, Pacific, Pend Oreille, San Juan, Skamania, Stevens, and Wahkiakum).³³ There are approximately 817 DSHS certified interpreters, most of which have a medical credential, currently contracted to provide professional medical interpretation services through HCA (personal communication, HCA, January, 2023).

Key informants who work with HCA Apple Health Interpreter Services stated that 92% of interpretation requests coordinated under the CBA are from Medicaid providers requesting medical interpreters (personal communication, HCA, January 2023). Data from January 1, 2020 through December 31, 2022 indicate that the HCA has received 388,760 contract requests for interpreter services; DSHS has received 12,698 requests; and DCYF has received 1,604 requests.¹⁸ Across this same date range, the reported fill rate for interpreter service contracts is 86% for HCA, 88% for DSHS, and 92% for DCYF, with variation across county and across language.¹⁸ Data are available for the fill rates among the top 7 languages, as well as languages of high demand, lesser diffusion (HD/LD).¹⁸ Data indicate differences in fill rates when comparing the top 7 languages to HD/LD languages. Between February to April, 2022, both DSHS and DCYF reported steady declines in fill rates for HD/LD languages, while the fill rates for the top 7 languages remained relatively consistent.¹⁸ DSHS and DCYF HD/LD language fill rates have both been increasing since April 2022.¹⁸

People who have a non-English language preference

There are approximately 265 languages spoken in Washington State.²⁰ Washington State does not have a single source of data to identify people who have a non-English language preference.¹⁴

The U.S. Census Bureau (Census) form historically included questions about language(s) spoken at home and ability to speak English in the household.³⁴ Those questions continue to be asked through the Census's American Community Survey (ACS).³⁴ Respondents are prompted on how

well they speak English, and the categories offered are "very well," "well," "not well," and "not at all."^{34,35} Based on data from the Census's 2021 ACS 5-year estimate, 20.3% of people in Washington State live in a household where a language other than English is spoken.¹⁹ This percentage has increased over time.^{19,34} In 2020, 7.6% of people in Washington State aged 5 years and older reported living in a household where English is spoken less than "very well".¹⁹ This percentage varied by county, ranging from 0.2% to 26.4% of the county population.³⁴

In 2021, the Office of Financial Management (OFM) published "Estimates of population with limited English proficiency for the state and counties" based on data from the Office of the Superintendent of Public Instruction's Comprehensive Education Data and Research System's (CEDARS) database.²⁰ CEDARS data reflect primary languages spoken by students in Washington State.²⁰ Spanish is the most common primary language of students who are English language learners and an estimated 13.5% of students primarily speak Spanish.²⁰

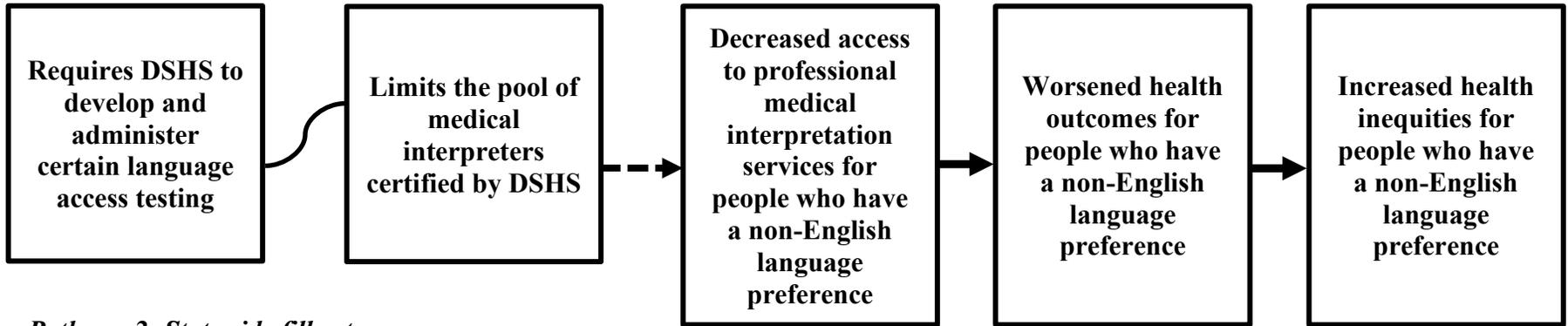
Combining data from the U.S. Census Bureau and OFM, the Washington State Military Department, Emergency Management Division produced estimates of the number of languages spoken by 1,000 or more people or 5% of the population by county.³⁶ Twenty-five counties (out of 39 counties) in Washington State have at least one language other than English spoken by 1,000 or more people or 5% of the population.³⁶ King County has the greatest linguistic diversity, with 27 different languages other than English spoken by 1,000 or more people or 5% of the county population.³⁶

DSHS publishes monthly data regarding Washington State households on Cash, Food, and Medical Assistance Programs by Primary Language.³⁷ In October 2022, among households accessing services, 11.6%, or 170,829 unique households speak a primary language other than English.³⁷ Households where English is not the primary language represent 344,648 unique clients, and 14.1% of all clients accessing services.³⁷

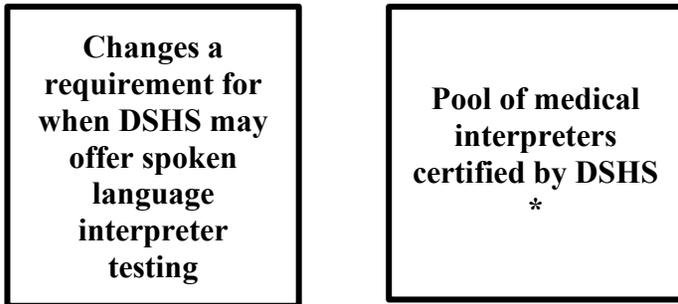
Overall, SB 5304 would impact medical interpreters who provide language access to state services and people who have a non-English language preference seeking public services in Washington State.

Logic Model

Pathway 1: Testing requirements



Pathway 2: Statewide fill rate



Since it is unclear whether changing a requirement for when DSHS may offer spoken language interpreter testing would change the pool of DSHS certified medical interpreters, the pathway to health impacts could not be completed.
See discussion in Summaries of Findings.

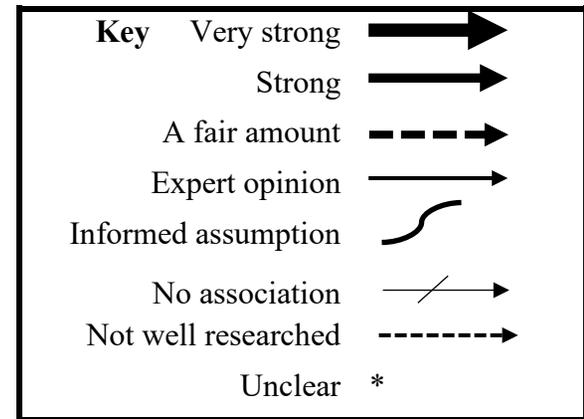


Figure 1:

**Testing individuals who provide language access to state services
SB 5304**

Summaries of Findings

Pathway 1: Testing requirements

Would requiring DSHS to develop and administer certain language access testing limit the pool of medical interpreters certified by DSHS?

We have made the informed assumption that requiring DSHS to develop and administer certain language access testing will limit the pool of medical interpreters certified by DSHS. This informed assumption is based on information from key informants and data available on interpreter services contract fill rates.¹⁸

[RCW 74.04.025](#) requires that DSHS certify, authorize, and qualify language access providers as needed to maintain an adequate pool of providers such that residents can access state services.³ Specifically, bilingual language services shall be provided in the person's primary language "to the extent necessary to assure that [people] are not denied, or unable to obtain or maintain, services or benefits because of their inability to speak English."³ [WAC 388-03](#) outlines the DSHS code of professional conduct for interpreters.⁵ Section 4 states that interpreters must meet the minimum proficiency standards set by DSHS.⁵ Section 12 states that interpreters are expected to continually develop their skills and knowledge through professional training, continuing education, and regular interaction with colleagues and specialists in related fields.⁵

Historically, DSHS has met the requirements outlined in RCW 74.04.025 and WAC 388-03 through the in-house management of their Language Testing and Certification (LTC) program. Testing was conducted in-person with a paper/pencil test at designated testing locations. Key informants stated that, over time, the in-house tests developed several issues due to a lack of funding and modernization, which contributed to a decrease in overall testing quality (personal communications, January 2023). For example, test content was not updated over time, which created a loss of cultural relevancy and technical medical relevancy within the examples and context used throughout the tests (personal communications, January 2023). Further, once people received their interpretation certification, they were not required to participate in continuing education opportunities, which may have contributed to a lack in updated subject knowledge and understanding of interpreter ethical standards (personal communications, January 2023). Research indicates that while bilingual language competence and linguistic transfer competence are two foundational aspects of interpreting, subject matter or topical knowledge ethical competence are highly important.²² These skills are frequently addressed in continuing education opportunities. Additionally, DSHS testing took place at a limited number of in-person testing sites, which led to long travel times, particularly for rural candidates (personal communications, January 2023). Key informants also stated that the cost of taking the test had not increased since the inception of the LTC, which contributed to the test's accessibility; and, over time, as the economy shifted, an undervaluing of the test occurred (personal communications, January 2023).

DSHS' in-person medical interpreter testing was halted in 2020 due to the COVID-19 pandemic and measures put in place by the Washington State public health emergency.³⁸ Key informants stated that the lack of testing availability created a backlog in medical interpreter testing and certification in Washington State (personal communications, January 2023). In August 2022, DSHS shifted its LTC medical interpreter testing process from in-house to contracting with third-party systems (personal communications, January 2023).

Currently, since August 2022, people can apply for a DSHS medical interpreter credential if they meet specific eligibility criteria after testing with one of the following 4 third-party testing entities: Certification Commission for Healthcare Interpreters (CCHI), the National Board of Certification for Medical Interpreters (NBCMI), UniversalLanguage Service, and ALTA Language Services.⁸ Each of these 4 options are for candidates pursuing a DSHS medical interpreter credential and for medical interpreters with expired credentials.⁸ All DSHS credentials expire after 4 years unless the renewal requirements are met.⁸ Key informants from DSHS stated that they reviewed each of these 4 companies' testing standards to ensure that they meet DSHS requirements (personal communication, DSHS, January 2023).

Key informants stated that shifting to third-party contractors contributed to several steps toward test modernization (personal communications, January 2023). For example, test content through third-party contractors is updated regularly, which increases cultural and technical relevancy throughout the examples and context used on the tests (personal communications, January 2023). Additionally, testing may be conducted at in-person testing sites or online, which decreases travel times, particularly for rural candidates (personal communications, January 2023). Compared to DSHS' historical in-house testing, there is an increase in testing cost (e.g., from \$75.00 to \$250.00) to candidates via the third-party vendor system (personal communications, January 2023). Some key informants stated that the cost of the tests reflects an appropriate price given industry standards, while others stated that the cost poses an unreasonable burden on candidates (personal communications, January 2023).

Key informants from DSHS, the AFSCME Interpreters United Union, and additional state agencies shared various concerns about DSHS in-house testing compared to third-party testing. Key informants with expertise in state contracting of interpretation services stated that the third-party contracting system DSHS has had in place since August 2022 has led to an increased pool of available interpreters (personal communications, January 2023). Available fill rate data tracked by HCA from January 1, 2020 to December 31, 2022 indicate that in April 2022, DSHS reached their lowest fill rate recorded for High Demand, Lesser Diffusion (HD/LD) languages, with a 32% fill rate.¹⁸ Since August 2022, DSHS' HD/LD fill rate has been increasing each month, with a measured 87% fill rate in December 2022.¹⁸ These data suggest that the full impacts of switching to third-party testing are not yet fully understood.

In January 2023, AFSCME Interpreters United published a position paper on DSHS testing changes.⁷ This position paper outlines several areas of concern regarding the 4 third-party contractors.⁷ Interpreters United stated that only 2 of the 4 third-party companies' (CCHI and NBCMI) credentials are recognized as valid under [RCW 39.26.300](#) and [WAC 388-03-030](#).⁷ Interpreters United described a lack of stakeholder input throughout the DSHS decision-making processes to implement third-party testing changes.⁷ They pointed out that according to DSHS, CCHI and NBCMI testing currently meet DSHS' standards if a person passes the written exam in English, further stating that this does not meet the standards laid out in the Reyes Consent Decree which required oral and written tests, and training of contracted interpreters.⁷ Research indicates that due to the skill needed in medical interpreting, candidates often need to pass both written and oral tests, in addition to ethical tests to demonstrate they can properly perform their duties.²² Further, Interpreters United expressed concerns that additional required trainings and

fees under the CCHI and NBCMI tests impose barriers on testers.⁷ Interpreters United also states that UniversalLanguage Service is the statewide coordinating entity contracted with HCA, and that using this vendor to also test interpreters introduces a conflict of interest.⁷ Lastly, researchers have described the importance of interpreting to fidelity, or “informational correspondence/equivalence between what a speaker delivers and what an interpreter renders.”²² It is unclear whether all 4 third-party testing entities that DSHS currently contracts with are testing to ensure fidelity.

SB 5304 would require DSHS to administer and develop oral and written tests in accordance with established standards to ensure all language access providers are fluent in English and a primary non-English language. Testing would include evaluation of language competence, interpreting performance skills, understanding of the interpreter's role, and knowledge of DSHS policies regarding confidentiality, accuracy, impartiality, and neutrality. Key informants shared concern that since SB 5304 requires DSHS to bring interpreter testing in-house, the bill may halt recent modernization changes, re-create a backlog in interpretation testing, and introduce limitations to the pool of DSHS certified medical interpreters (personal communications, January 2023). In addition, SB 5304 includes an effective date 90-days after adjournment of the Legislative Session in which the bill is passed. It is not possible to know what the implementation details of DSHS’ testing system would look like 90-days after bill passage.

Researchers have stated that additional “study is required to ascertain the optimal content and duration of training and standards required for bilingual interpreters. This is salient when considering the continuing flux in national migration and resettlement trends, leading to new and emerging language/dialect requirements that may not be reflected in accredited interpreter employment pools.”²¹ A 2022 summary of evidence evaluating different methods of medical interpretation services (i.e., professional, ad hoc [defined in the literature as using friends, family, or untrained bilingual employees], or no interpretation) stated that training and certification for professional interpreters has been inconsistent and few studies have evaluated objective outcomes “such as interpreter error, clinical significance of errors, resource utilization, or knowledge of diagnosis or discharge instructions.”²³ In one study, “[r]esearchers found that more than 100 hours of prior interpreter training led to improved clinical outcomes ([e.g.,] fewer interpretation errors, errors of potential [clinical] consequence), suggesting that research examining optimal accreditation training is needed.”²³

Experts in interpreter testing also point out the growing need for the field of interpreter testing and assessment to modernize:

[T]o improve the efficiency and manageability of large-scale [interpreting testing and assessment], testing agencies and certifying bodies may need to consider using technology-assisted testing and assessment systems. For example, test delivery could be computerized; rater training could be made online; and operational scoring could be managed by a centralized system, although test security, cost-effectiveness, and feasibility may also be weighed in decision-making...The coupling of human and machine power may save a considerable amount of financial, logistical, and human resources for certifying bodies.²²

Evidence from key informants and available fill rate data indicate that under SB 5304, DSHS may face initial system start-up challenges (information technology needs, data system management, staffing, etc.) and continue to face long-term system maintenance challenges (developing tests in new and emerging languages, updating medical terminology and relevant contextual language, etc.). Key informants stated that the longer-term impact SB 5304 may have on the pool of DSHS certified medical interpreters would heavily depend on allocation of resources, staff capacity, and funding, and that time is needed to track observable changes to these outcomes (personal communications, January 2023).

Given information from key informants about past, current, and potential future challenges of DSHS providing in-house testing for medical interpreters, available fill rate data, and evidence suggesting that modernization and additional research is needed to determine best practices for interpreter testing, we have made the informed assumption that SB 5304 may limit the pool of DSHS certified medical interpreters.

Will limiting the pool of DSHS certified medical interpreters decrease access to professional medical interpretation services for people who have a non-English language preference?

There is a fair amount of evidence that limiting the pool of DSHS certified medical interpreters would decrease access to professional medical interpretation services for people who have a non-English language preference.

It is clearly established that there is an ever-increasing demand for interpretation services, and a limited supply of certified medical interpreters. The U.S. Census Bureau shows that 20.3% of people in Washington State live in a household where a language other than English is spoken,¹⁹ and this percentage has increased over time.^{19,34} The U.S. Bureau of Labor Statistics projects that employment of interpreters and translators is projected to grow 20% between 2021 to 2031, at a much faster rate than the average of other occupations.²¹ Key informants echoed the national landscape to confirm that there is a growing need for interpreters in Washington State (personal communications, January 2023). One researcher stated potential reasons behind the growing demand: “[R]ecent waves of immigration (e.g., skilled labor, refugees, asylum seekers)...have given rise to social challenges of enabling equitable access to legal, medical and other public services...[and] have precipitated the shortage of qualified community interpreters”²²

The demand for public service interpreters, as well as the need to modernize interpretation services has been heightened by the COVID-19 pandemic. One researcher stated, “[i]n recent years, we have witnessed a burgeoning demand for technology-assisted interpreting for public services, especially during the global pandemic of COVID-19 (e.g., video remote interpreting) and interpreting for a diverse range of highly specialized subject matters. These developments pose a challenge to [interpreting testing and assessment], logistically and technologically [...] Available human resources may also be an issue when a certifying organization needs to certify an interpreter who interprets into a language of limited diffusion.”²²

Evidence suggests that demand for interpreters is growing nationally and within Washington State. If the pool of DSHS certified medical interpreters is limited and demand is growing, there is an increased likelihood that requests for professional medical interpretation services may go

unfilled, and providers and people who have a non-English language preference may not have access to interpreters.

Would decreased access to professional medical interpretation services worsen health outcomes for people who have a non-English language preference?

There is strong evidence that decreased access to professional medical interpretation services would worsen health outcomes for people who have a non-English language preference.

English language proficiency, time in the U.S., and having health insurance are predictors of healthcare use and access.²⁴ It is well-established that increasing access to and use of healthcare services improves health. There is also a large body of evidence supporting the positive association between use of health services for the early detection and treatment of physical and mental health disorders³⁹ and improved health outcomes.

People who have a non-English language preference are less likely to seek healthcare or see a healthcare provider.²³⁻²⁸ A 2020 systematic review examining the impact of language barriers on the delivery of healthcare cited a Canadian study that found “66.7% [of patients who spoke a language different than the healthcare provider] faced a barrier when accessing healthcare, and 20% did not seek healthcare services if these were not readily available for fear of not understanding their healthcare provider.”²⁵ Another study examined healthcare spending differences by English proficiency status and long-term healthcare use patterns of people with or without English proficiency.²⁶ Researchers found a persistent gap (as measured by spending on healthcare services) in use of care between Hispanic adults with and without English proficiency between 1999 and 2018.²⁶ Within the same time frame, the gap of use widened between Hispanic adults with LEP and non-Hispanic, English-proficient adults.²⁶ The researchers’ analysis determined that people with LEP showed substantial rates of missed age-appropriate health screenings.²⁶ Researchers discussed potential causes for language-based differences in healthcare use and the gaps as a potential result of language-based inequities and healthcare access: “Non-English speakers may be less likely to seek care for health concerns, anticipating that their needs might not be met [...] Even when care is sought, the lack of language concordant clinical and administrative staff in many health care organizations may make navigating the health care system more difficult.”²⁶

Language barriers impact healthcare delivery and miscommunication between patients and healthcare providers and may result in adverse health impacts for patients who have a non-English language preference.^{23-25,27,29,30} Language barriers have been linked to high rates of emergency department use, unnecessary hospitalization, lower quality of care, and greater risk for adverse health outcomes.²³ Results from a U.S.-based telephone survey found that 15.8% of patients who spoke a language different than the healthcare provider reported a bad reaction to medication due to difficulty understanding their healthcare provider’s instructions.²⁵ Other studies have found that language barriers and miscommunication between patients and providers may result in incomplete prescribed treatment and increased medication complications.²⁵

Linguistically-appropriate healthcare may include: “language-concordant care (services provided by a clinician who speaks the same language as the patient) and interpreter-mediated care (a medical interpreter participates as a linguistic conduit between the patient and clinician).”⁴⁰ Use

of professional medical interpreters has been associated with an improvement in care for patients who have a non-English language preference, including a decrease in communication errors, increase in patient comprehension, increase in healthcare use, improved clinical outcomes, and increased satisfaction with communication and clinical services.³¹ Researchers have explained that improved quality of care is impacted “by the ability of professional interpreters to overcome health communication barriers. Professional interpreters, through their experience, training, and knowledge of both medical and lay terminology are better able to communicate patients’ symptoms and questions to clinicians, and clinicians’ rationale for treatment and explanations of proper use of therapy to patients.”³¹

Empirical studies have also evaluated the impact of different methods of providing interpretation services (i.e., professional, ad hoc, or no interpretation) on health outcomes. Generally, “evidence suggests that any type of professional language service is superior to untrained interpreting and vastly better than not using an interpreter at all.”²³ A systematic review of 28 articles evaluating the impact of professional medical interpreters on quality of care for patients who have a non-English language preference concluded that “use of professional interpreters is associated with improved clinical care more than is use of ad hoc interpreters, and professional interpreters appear to raise the quality of clinical care for [patients with a non-English language preference] to approach or equal that for patients without language barriers.”³¹ Meanwhile, ad hoc interpretation has a “high potential for error that can be harmful to the patient-physician communicative relationship and clinically to patients.”²³ One study found that ad hoc interpretation was twice as inaccurate compared to in-person or video professional medical interpretation.²³

Research has also found that, “[i]n-person professional medical interpretation can improve the satisfaction of clinicians, patients, and/or their legal guardians.”²³ Researchers have stated that, “[i]t is plausible that patients with higher levels of satisfaction experienced better communication. Patient adherence to instructions, then, is more likely to occur because of effective communication.”²³ A 2020 systematic review, which included results from 3 randomized controlled trials, evaluated the impact of professional interpreters on health outcomes among children ages 0 through 18 from families with LEP who were hospitalized.¹ The review found that use of an in-person professional interpreter resulted in statistically significantly greater caregiver satisfaction with the interpreter, physicians, and nurses than use of an in-person ad hoc interpreter.¹ Overall, the authors found that, “[r]egardless of the outcome measured, professional interpreter services had a more positive impact than ad hoc interpreter services provided to LEP migrant and refugee families when a child was hospitalized.”¹

A 2022 systematic review of 20 articles examined differences in outcomes in stroke care prevention, management, and recovery between patients with and without LEP in English-predominant healthcare settings.²⁷ Overall, 4 studies examining pre-stroke preventive care found LEP was associated with “suboptimal results across multiple important metrics of pre-stroke care, showing that [people who have a non-English language preference] have lower awareness of stroke symptoms and experience greater difficulty with medication regimens.”²⁷ Specific to acute care, after accounting for sociodemographic factors and stroke severity, patients who had a non-English language preference and did not receive a professional medical interpreter were statistically significantly less likely to receive defect-free care (i.e., receipt of all treatment

measures for which a patient was eligible) compared to patients who did receive a professional medical interpreter.²⁷ Finally, when assessing post-stroke care, one study found that patients who had a non-English language preference viewed “rehabilitation tasks as tests of competence rather than constructive activities” and “felt little agency in the decision of whether or not to involve a [professional medical interpreter] [...]”²⁷ The systematic review concluded that without consideration of language access, studies “may fail to observe the vulnerability of [patients who have a non-English language preference] who do not receive proper [professional medical interpreter] services in a language discordant environment.”²⁷

Overall, there is strong evidence that decreased access to professional medical interpretation services would worsen health outcomes for people who have a non-English language preference.

Would worsened health outcomes increase health inequities for people who have a non-English language preference?

There is strong evidence that worsened health outcomes would increase health inequities for people who have a non-English language preference.

It is well-documented that people with LEP experience worse access to healthcare and worse health outcomes than people without LEP,^{23,28} and that language barriers contribute to health inequities.³¹ People who have a non-English language preference are more likely to report worse perceived access to healthcare and to experience structural barriers in accessing healthcare, including language barriers, ineffective patient-physician communication, and inadequate health insurance coverage.²⁸ Research has also consistently shown that people who have a non-English language preference have less access to a usual source of care, lower rates of physician visits, lower rates of preventive services (e.g., blood pressure check, cholesterol check, colorectal cancer screening), poorer adherence to treatment and follow-up for chronic diseases, decreased comprehension of diagnoses and treatment following emergency department visits, lower satisfaction with care, and increased medication complications.^{28,31} A recent analysis of nationally-representative data from 2014 through 2018 found that people who reported speaking English “not at all” were three times more likely to lack a usual source of care provider and twice as likely to have not visited a healthcare provider or to have had their blood pressure check in the past year compared to people who reported speaking English “very well.”²⁸

People who have a non-English language preference are also more likely to report being uninsured or experiencing health insurance coverage disruptions compared to people without LEP.²⁸ A 2022 evaluation of the association between LEP and access to healthcare found that adults with LEP were more likely to experience worse access to healthcare, “even after implementation of the health insurance coverage and civil rights protections of the [2010 Patient Protection and Affordable Care Act (ACA)]” and that findings were consistent with studies conducted prior to the implementation of the ACA.²⁸ The study authors stated that, “high levels of uninsurance and health insurance coverage disruptions are particularly striking and concerning as health insurance coverage is one of the most important modifiable factors determining access to health care. Due to legal and policy contexts governing access to resources, adults with LEP, who are less likely to be U.S.-born, are subjected to stricter health insurance coverage eligibility requirements and exposed to greater complexity and administrative burden in determining eligibility and acquiring and maintaining health insurance coverage.”²⁸

Researchers have also noted that the intersectionality of race, language, insurance status, location, and other factors impact the availability of and access to healthcare.³² A study with 82 children who were treated for moderate to severe traumatic brain injury at Harborview Medical Center in Seattle, Washington found that children in households with a non-English language preference and Medicaid “faced significant barriers in availability and proximity of outpatient rehabilitation services.”³² Of 293 outpatient rehabilitation service providers, 46% accepted children with Medicaid.³² There were also fewer rehabilitation services (i.e., physical and occupational therapy; speech, language, and cognitive therapy; mental health services) available for children with Medicaid and for children whose family needed language interpretation.³² For example, “only 8% of mental health rehabilitation services were available to children with Medicaid who also needed language services. Less than half of the physical and occupational services [...] accepted children with Medicaid insurance and were able to provide language services.”³² Overall, less than 20% of rehabilitation service providers accepted children with Medicaid and provided language interpretation services.³²

A systematic review of 28 articles evaluating the impact of professional medical interpreters on quality of care for patients who have a non-English language preference stated that, “[w]ithout access to professional interpreters, this large and growing population [of people with a non-English language preference] will continue to suffer differentials in both health and access to quality health care.”³¹ Previous research “findings suggest that provision of professional interpreter services can reduce [inequities] in care for LEP populations.”³¹

These inequities are exacerbated by determinants of health like racism, which “contributes to social inequities (e.g., poverty) that shape health behaviors, access to healthcare, and interactions with medical professionals.”⁴¹ Institutionalized racism results in differential access to resources, services, and opportunities, including access to healthcare, by race.⁴² For example, in Washington State, Spanish is a common primary language of people with LEP,²⁰ and data have shown that Hispanics were most likely to report fair or poor health as compared to all other racial/ethnic groups (36% versus 16% state average).⁴³

Overall, it is well-established that people who have a non-English language preference experience greater barriers in accessing healthcare and worse health outcomes, in part due to language access barriers. Since SB 5304 would likely decrease access to professional medical interpreters, there is strong evidence that SB 5304 would increase health inequities for people who have a non-English language preference in Washington State.

Pathway 2: Statewide fill rate

Will changing a requirement for when DSHS may offer spoken language interpreter testing change the pool of medical interpreters certified by DSHS?

There is unclear evidence how changing a requirement for when DSHS may offer spoken language interpreter testing may impact the pool of DSHS certified medical interpreters.

Under current statute, RCW 74.04.025 places a limit on DSHS to only offer interpreter testing to people speaking languages for which the fill rates in the prior year are 90% or lower (according to DSHS employees and HCA, on behalf of limited English-speaking applicants and recipients of

public assistance).³ HCA manages a contract with UniversalLanguage Service for scheduling interpreter appointments to pay interpreters for the services they provide at appointments for clients enrolled in Apple Health and DSHS and DCYF programs.⁴⁴ Since 2019, HCA has been tracking fill rate data for the interpretation services provided through this contract.¹⁸ Key informants stated that the fill rate referred to under RCW.74.04.025 is currently determined using HCA-provided data for interpreter contract utilization (personal communication, HCA, January 2023). Although current statute limits DSHS testing based on fill rate, the DSHS website states that they do not have testing limitations due to fill rates at this time,⁸ and key informants stated that according discussions at the LTC Advisory Committee, DSHS has not initiated a restriction on medical interpreter testing based on fill rate data (personal communication, Washington State Coalition for Language Access [WASCLA], January 2023).

SB 5304 would change the way the fill rate would be calculated to determine when DSHS may offer testing. SB 5304 would require that DSHS only offer interpreter testing to individuals speaking languages for which the statewide fill rate of any state procurement processes in the prior year were 90% or lower. Statewide fill rate data is not currently collected in a uniform, publicly available way (personal communications, January 2023). Key informants offered various perspectives regarding how a change to a statewide fill rate may impact interpreter testing limitations. A key informant representing Interpreters United stated that the legislative proposal may slow the certification process for more common languages (personal communication, Interpreters United, 2023). Key informants from state agencies stated that the outcome is impossible to predict, since the statewide fill rate data is completely unknown (personal communications, January 2023).

Key informants shared several concerns about tracking statewide fill rate data. Agencies affected by the bill provisions (DCYF, DSHS, HCA, and L&I,) may currently define “fill rate” in different ways and track this data differently, if they are tracking this data at all (personal communications, January 2023). Some key informants indicated that significant communication and data coordination efforts across agencies would need to occur for effective implementation of SB 5304 (personal communications, January 2023). Further, some key informants pointed out differences between interpretation contract utilization and actual need for interpretation services (personal communication, WASCLA, January 2023). Data included in HCA’s medical interpreter contract utilization database reflects services completed for payment,¹⁸ while data on client need for interpreter services may not be collected, may not correlate to the provision of interpreter services, and is likely greater than that reflected by contract utilization rates (personal communication, WASCLA, January 2023).

If using statewide fill rate data would create a change to the current percentage of requests that are filled, the limitation on whether DSHS could offer medical interpreter testing in a particular language would also change, which in turn may impact the number of DSHS certified medical interpreters. Key informants stated that a change in the way fill rates and testing limitations are determined could also have disproportionate downstream impacts on the number of medical interpreters available for languages of lesser diffusion, which could widen the gap in access to interpretation services (personal communications, January 2023).

Since a statewide fill rate data is not currently known, it is not possible to determine whether a change would occur to the percentage of requests filled, to the testing limitation, or to the number of DSHS certified medical interpreters. For this reason, the pathway to health and equity could not be completed.

Annotated References

1. **Boylen S., Cherian S., Gill F. J., et al. Impact of professional interpreters on outcomes for hospitalized children from migrant and refugee families with limited English proficiency: a systematic review. *JBI Evid Synth.* 2020;18(7):1360-1388.**

In the literature, a professional interpreter is defined as “[p]rofessional, qualified, hospital-trained and medical interpreters [...that...] have received training and have skills and experience that are accredited by professional bodies.” Boylen et al. conducted a systematic review including results from 4 studies (3 randomized controlled trials) reported in 6 articles evaluating the impact of professional interpreters on health outcomes among children ages 0 through 18 from families with limited English proficiency who were hospitalized. All studies were in the U.S. with Spanish-speaking patients. The authors stated that, “[a] key strategy to facilitate effective communication between limited-English-proficient migrant and refugee families and healthcare providers is the use of professional interpreters.” Use of an in-person professional interpreter resulted in statistically significantly greater caregiver satisfaction with the interpreter, physicians, and nurses than use of an in-person ad hoc interpreter. There was no significant difference between use of in-person professional interpreters and ad hoc interpreters for caregiver satisfaction with the overall visit and perception of quality of care. The authors rated the certainty of the evidence as “very low.” The authors also evaluated studies that compared the use of in-person professional interpreters with use of bilingual care providers and use of remote (i.e., telephone and video) professional interpreters. Overall, the authors found that, “[r]egardless of the outcome measured, professional interpreter services had a more positive impact than ad hoc interpreter services provided to LEP migrant and refugee families when a child was hospitalized.” Specifically, “[m]any aspects of satisfaction were measured, and families who received services by ad hoc interpreters consistently rated their satisfaction as lower than that of families who received services by professional interpreters...The association between patients’ satisfaction with care and improved health outcomes has been established; therefore, satisfaction is an important indicator of quality of care.” Overall, “there is evidence to show that use of ad hoc interpreters or no interpreter is inferior to professional interpreters of any mode [i.e., in-person, telephone, video].” The authors noted that none of the studies in this review considered satisfaction for people who required, but did not receive, interpretation services. While this systematic review included potential impacts of medical interpreters in Australia, the authors noted that additional “study is required to ascertain the optimal content and duration of training, and standards required for bilingual interpreters. This is salient when considering the continuing flux in national migration and resettlement trends, leading to new and emerging language/dialect requirements that may not be reflected in accredited interpreter employment pools.”

2. **History 2016; Available at: <https://www.certifiedmedicalinterpreters.org/history>. Accessed, 2023.**

The National Board of Certification for Medical Interpreters provides a timeline overview of the development and certification of medical interpreters.

3. **Bilingual services for non-English-speaking applicants and recipients—Bilingual personnel, when—Primary language pamphlets and written materials., 74.04.025 Revised Code of Washington.**

RCW 74.04.025 requires the Department of Social and Health Services (DSHS), the Health Care Authority (HCA), and the Office of Administrative Hearings ensure bilingual services are provided to non-English-speaking applicants and recipients of public services. Specifically, bilingual language services shall be provided in the person’s primary language “to the extent necessary to assure that [people] are not denied, or unable to obtain or maintain, services or benefits because of their inability to speak English.”

4. Purchase of spoken language interpreter services—When authorized—Requirements., (2023).

RCW 39.26.300 requires the Department of Enterprise Services (DES) to develop and implement a model for state agencies to procure interpreter services, and authorizes DSHS, HCA, the Department of Children Youth and Families (DCYF) and the Department of Labor and Industries (L&I) to purchase interpreter services for people who have a non-English language preference. DSHS, HCA, DCYF, and L&I are authorized to procure interpreter services through DES if the demand for spoken language interpreters cannot be met through their respective contracts.

5. WAC 388-03-050. What is the department's code of professional conduct for interpreters, translators, and LAPL?

WAC 388-03-050 outlines DSHS' code of professional conduct for interpreters. The following components are included: accuracy, cultural sensitivity-courtesy, confidentiality, proficiency, compensation, nondiscrimination, self-representation, impartiality-conflict of interest, professional demeanor, scope of practice, reporting obstacles to practice, and professional development.

6. Luisa Reyes and Salvador Penado on behalf of themselves and other similarly situated plaintiffs vs. Richard Thompson, Secretary, State of Washington Department of Social and Health Services (1991).

In the 1980’s, lawsuits and complaints were filed against Washington DSHS due to lack of equal access to services for people with LEP. In response, the Reyes Consent Decree (1991) was signed as part of a settlement with the Office for Civil Rights Region X of the US Department of Human and Health Services. Among other stipulations, the consent decree stated that DSHS would establish “[g]uidelines which outline the hiring procedure for both bilingual staff and contracted interpreters. These guidelines shall include: i. Testing requirements related to hiring; ii. Certification requirements for particular positions; iii. The rating system used for certification; and iv. The list of acceptable certifications including the DSHS administered Fluency test.” The Reyes Consent Decree specified that DSHS develop a statewide policy for testing that includes requirements for oral and written tests; emphasizes bicultural and bilingual staff to ensure effective communication; and includes guidelines to provide bilingual services without delay if an employee or contracted interpreter fails the test. The Reyes Consent Decree requirements match current requirements for providing bilingual services specified in RCW 74.04.025.

7. AFSCME Interpreters United. Position Paper on DSHS Testing Changes for Spoken Language Interpreters 2023.

AFSCME Council 28, Interpreters United is the labor union for freelance spoken language interpreters, and their legal representatives when they render services for HCA-Medicaid

enrollees, DSHS and DCYF clients. In January, 2023 a position paper was published, outlining the union's stance on DSHS interpreter testing changes. The paper includes background, relevant laws and regulations, the DSHS medical interpreter credentialing process, and information on the 4 types of third-party testing DSHS currently uses.

8. **Test Information.** Available at: <https://www.dshs.wa.gov/office-of-the-secretary/test-information>. Accessed February 1, 2023.

The Washington State Department of Social and Health Services (DSHS) website hosts information on their Language Testing and Certification Program.

9. **Making the governor the public employer of language access providers, (2010).**

In 2010, ESSB 6726 was passed in the Washington State Legislature, which granted American Federation of State, County and Municipal Employees (AFSCME) Council 28 union rights for contracted interpreters, referred to as Interpreters United.

10. **Washington Health Care Authority. Interpreter Services Billing Guide.2021.**

In 2012, at the direction of the legislature, the Health Care Authority (HCA) procured a single coordinating entity to provide spoken language interpreter services for Apple Health, Department of Social and Health Services (DSHS), and Department of Children, Youth and Families (DCYF) clients. The collective bargaining agreement (CBA) was established between spoken interpreters and the Governor of Washington State.

11. **HHS Continues to Improve Access for LEP Individuals.** Available at: <https://www.hhs.gov/civil-rights/for-individuals/special-topics/limited-english-proficiency/hhs-continues-to-improve-access-for-lep-individuals/index.html>. Accessed February 21, 2022.

This webpage provides an overview related to how the U.S. Department of Human Services is reducing barriers for people with limited English proficiency, including how covered entities must comply with federal law.

12. **Executive Order 13166. Improving Access to Services for Persons with Limited English Proficiency 2000;** Available at: <https://www.justice.gov/crt/executive-order-13166>. Accessed February 15, 2022.

This DOJ web page provides an overview of Executive Order 13166 "Improving Access to Services for Persons with Limited English Proficiency" (2000), which " requires Federal agencies to examine the services they provide, identify any need for services to those with limited English proficiency (LEP), and develop and implement a system to provide those services so LEP persons can have meaningful access to them." It provides guidance and materials which offer informal non-binding guidance to assist in understanding the order.

13. **What qualifies as "Federal financial assistance" for purposes of civil rights complaints handled by OCR?** Available at: <https://www.hhs.gov/civil-rights/for-individuals/faqs/what-qualifies-as-federal-financial-assistance/301/index.html>. Accessed February 21, 2022.

This webpage provides a list of recipients of federal financial assistance from the U.S. Department of Health and Human Services.

14. Access Washington State Coalition for Language. Washington State Coalition for Language Access Tools for Health Language Access in Healthcare for LEP Persons: What Providers in Washington State Need to Know. 2015.

Washington State Coalition for Language Access (WASCLA) created a fact sheet for healthcare providers as a resource related to language access in healthcare. The fact sheet refers to research documenting that when a patient speaks limited English, they are at an increased risk for medical errors, including those with prescriptions drugs; have more unnecessary diagnostic testing and procedures; have increased rates of hospitalization, longer hospital stays and more re-admissions; have worse outcomes; and accrue both higher personal and system expenses. The fact sheet cites that the Supreme Court has ruled that language can be an identifier of national origin, and therefore is encompassed in Title VI of the 1964 Civil Rights Act. The Affordable Care Act (ACA) also established mandates for meeting the needs of people with limited English proficiency. The United States Department of Health and Human Services developed standards for Culturally and Linguistically Appropriate Services in Health and Health Care (CLAS) in 2004 and updated in 2014. A covered entity receiving federal funds for any part of its operation is required to provide no-cost meaningful language access services to people with limited English proficiency at all points of service. Language assistance must be provided to those responsible for the patient’s care, as well (e.g. parents, relatives, guardians). Licensed healthcare providers working for a covered entity receiving federal funds must comply with Title VI (i.e., hospitals, nursing homes, Medicaid agencies, outpatient clinics, and pharmacies). The fact sheet states that to provide language assistance services means that “all parties are provided with high quality spoken and written language communications which allow them to comfortably discuss the patient’s health and health care – the ensure meaningful access to services.” Language translation means translating done between written languages – the source language and the target language. Language services should be provided by qualified persons, that may include of bilingual providers and staff and trained interpreters and/or translators, who have been assessed for their professional skills with verified language proficiency, knowledge of medical terminology and concepts in each language, appropriate training, and knowledge of and adherence to codes of ethics and standards of practice for medical interpreters. A patient’s family member, friend, or accompanying minor may not be required to interpret for the patient except in emergency situations. It is estimated that only one third of the English-speaking public has adequate health literacy.

15. Health Think Cultural. CLAS, cultural competency, and cultural humility. US Department of Health and Human Services; US Department of Health and Human Services Office of Minority Health.

This document is a one-page resource on how to improve quality of care through the concepts of CLAS, cultural competency, and cultural humility. Culturally and linguistically appropriate services (CLAS) “refers to services that are respectful of and responsive to individual cultural health beliefs and practices, preferred languages, health literacy levels, and communication needs.” Cultural competency is described as “a developmental process in which one achieves increasing levels of awareness, knowledge, and skills along a continuum, improving one’s capacity to work and communicate effectively in cross-cultural situations.” Cultural humility is described as a “process of understanding one’s biases and privileges, managing power

imbalances, and maintaining a stance that is open to others in relation to aspects of their cultural identity that are most important to them.”

16. Services U.S. Department of Health and Human. Section 1557: Ensuring Meaningful Access for Individuals with Limited English Proficiency.

In this one page document, U.S. Department of Health and Human Services (HHS) provides an overview of Section 1557 of the 2010 Patient Protection and Affordable Care Act (ACA) as it pertains to protections for people with LEP.

17. Healthy People 2030- Increase the proportion of adults with limited English proficiency who say their providers explain things clearly -- HC/HIT-D11. 2020; Available at: <https://health.gov/healthypeople/objectives-and-data/browse-objectives/health-communication/increase-proportion-adults-limited-english-proficiency-who-say-their-providers-explain-things-clearly-hchit-d11>. Accessed 2/2/2023.

U.S. Department of Health and Human Services' Healthy People 2030 Initiative includes a health communication goal to “increase the proportion of [adults with LEP] who report that their doctors or other health providers always explained things in a way that was easy to understand.”

18. Washington Health Care Authority HCA Interpreter Services Contract Fill Rate.

The Washington Health Care Authority manages and tracks interpreter service contract utilization. This data is published on a publicly available dashboard.

19. United States Census Bureau. Language Spoken at Home. 2021.

The United States Census Bureau reports on languages spoken at home. 1- and 5-year estimates from 2010-2021 are available.

20. Washington State Office of Financial Management. Limited English Proficiency Population Estimates: Estimate of population with limited English proficiency for the state and counties. 2022.

The Washington State Office of Financial Management (OFM) provides summary data from the Office of the Superintendent of Public Instruction, the 2010 Census, and the Department of Social and Health Services.

21. Occupational Outlook Handbook. 2022; Available at:

<https://www.bls.gov/ooh/media-and-communication/interpreters-and-translators.htm#tab-1>. Accessed, 2023.

The U.S. Bureau of Labor Statistics compiles and publicly shares national data related to work and occupations. This entity projects that employment of interpreters and translators is projected to grow 20% between 2021 to 2031, at a much faster rate than the average of other occupations.

22. Han Chao. Interpreting testing and assessment: A state-of-the-art review. *Language Testing*. 2022;39(1):30-55.

Chao Han conducted a review of literature on interpreting testing and assessment. The review includes an overview of research on interpreting ability, testing and assessment practices, and challenges facing interpreters. Han points out that more attention has been given in recent years to written interpretation testing, as compared to oral interpretation testing. The author states that

“recent waves of immigration (e.g., skilled labor, refugees, asylum seekers), which have given rise to social challenges of enabling equitable access to legal, medical and other public services...have precipitated the shortage of qualified community interpreters”. Interpreting testing and assessment (ITA) can play a gatekeeping role. Han points out the agreeance in the field of interpretation that bilingual language competence and linguistic transfer competence are two foundational aspects of interpreting, and that subject matter or topical knowledge and professionalism, particularly ethical competence are also frequently named as highly important. Further, interaction management skills and physio-psychological qualities (e.g., stamina, motivation) are also important skills for successful interpretation. The importance of interpreter certification performance testing in medical and legal avenues is described, and names that test candidates often need to pass written and ethical tests, in addition to oral tests. In ITA, “three major modes of interpreting are frequently tested and assessed, including simultaneous interpreting (SI), consecutive interpreting (CI), and sight interpreting (SiI)”. Certification tests for public services settings usually incorporate all three types. Testing for research purposes have utilized the following variables to test interpreter performance: fast speech rate, strong accent, convoluted syntactical structures. Experts agree that testing environments and tasks should mimic the experiences in which the interpreter will be performing. The author describes the importance of interpreting to fidelity, or “informational correspondence/equivalence between what a speaker delivers and what an interpreter renders”. In testing, fidelity “is usually assigned more weight than delivery and language quality, especially for [medical or legal] settings”. Various quantitative and qualitative methods of scoring assessments and utilization of human raters are currently used, and are discussed in the research summary. The author comments on the lack of rigorous research on score-based interpreter testing: “the lack of solid validity evidence concerning the extrapolation and utilization inferences looms large in interpreter certification testing and also in professional qualification examinations...” Research generally supports the use of rubric rating tables to score testers, though limitations do exist with these methods. Automated scoring methods are discussed. Challenges are discussed. The author states, “[i]n recent years, we have witnessed a burgeoning demand for technology-assisted interpreting for public services, especially during the global pandemic of COVID-19 (e.g., video remote interpreting) and interpreting for a diverse range of highly specialized subject matters. These developments pose a challenge to [interpreting testing and assessment], logistically and technologically, as test developers may want to recreate real-life complexities in a test. Available human resources may also be an issue when a certifying organization needs to certify an interpreter who interprets into a language of limited diffusion.” “Furthermore, the increasing number of test candidates for certification programs has to be accommodated. To test organizers, this means either the deployment of more logistical resources to cope with the demand, or resorting to efficient screening techniques and computerized testing and assessment.” The author points to continuous professional development and test designers' partnership with experts as a main means to tackle challenges to the interpretation field. “[T]o improve the efficiency and manageability of large-scale ITA, testing agencies and certifying bodies may need to consider using technology-assisted testing and assessment systems. For example, test delivery could be computerized; rater training could be made online; and operational scoring could be managed by a centralized system, although test security, cost-effectiveness, and feasibility may also be weighed in decision-making. In addition, given the fast-paced development of automatic assessment, testing agencies could use automated scoring engines for initial screening, meaning that only those test candidates who pass the screening test are able to be qualified for rater-

mediated performance assessment. The coupling of human and machine power may save a considerable amount of financial, logistical, and human resources for certifying bodies”.

23. Schlange S. A., Palmer-Wackerly A. L., Chaidez V. A Narrative Review of Medical Interpretation Services and their Effect on the Quality of Health Care. *South Med J.* 2022;115(5):317-321.

Schlange et al. provided a narrative review evaluating methods of interpreter services that most effectively communicate and achieve positive health outcomes for patients with a non-English language preference. The authors noted that a narrative review, “provides general discussion when research is limited around a topic, and variation in methodologies or measured outcomes preclude a systematic review.” While Title VI of the Civil Rights Act of 1964 requires recipients of federal funding to “provide meaningful access to their services, regardless of patients’ ability to speak English [...] provision of meaningful access is not universally defined. Language services provided to patients range from hired professional interpreters to pulling in a bilingual staff member to help fill gaps in communication. Likewise, physicians and healthcare services are disincentivized to provide professional interpreters because the costs of such services often are the clinicians’ responsibility. Third-party reimbursement for language services in health care is being proposed, with the goal of increasing interpreter use by removing the financial burden and providing patients the care that they need.” Generally, “evidence suggests that any type of professional language service is superior to untrained interpreting and vastly better than not using an interpreter at all.” Language barriers negatively affect healthcare outcomes, including less access to healthcare, high rates of emergency department visits and unnecessary hospitalization, lower quality of care, and greater risk for adverse outcomes. The authors evaluated existing evidence related to different methods of providing medical interpretation, including in-person professional interpretation; remote phone or video professional interpretation; using friends, family, or untrained bilingual employees (i.e., ad hoc interpretation); or no interpretation. They stated that, “[i]n-person professional medical interpretation can improve the satisfaction of clinicians, patients, and/or their legal guardians.” Ad hoc interpretation has a “high potential for error that can be harmful to the patient-physician communicative relationship and clinically to patients.” One study found that ad hoc interpretation was twice as inaccurate compared to in-person or video professional interpretation. Another study found that professional interpreters were more likely to be used in pediatric healthcare settings in states that had third-party reimbursement, and that ad hoc interpretation was more likely to be used in rural practice settings. The authors noted that the majority of research examining quality of care and interpretation services has focused on patients that speak Spanish, and that more research is needed for patients who speak languages other than Spanish. In their conclusions, the authors stated, “[m]edical scenarios can vary greatly in severity, with some requiring more intimate, empathetic conversations. Situations such as discussing the imminent death of a loved one or conversations with multiple family members may warrant in-person interpreters.” They also found that training and certification for professional interpreters were inconsistent. However, “[r]esearchers found that more than 100 hours of prior interpreter training led to improved clinical outcomes ([e.g.,] fewer interpretation errors, errors of potential [clinical] consequence, suggesting that research examining optimal accreditation training is needed.” The authors also concluded that few studies have evaluated objective outcomes “such as interpreter error, clinical significance of errors, resource utilization, or knowledge of diagnosis or discharge instructions. Patient perception of high-quality care is an important outcome since

‘quality of interpersonal interactions may affect the quality of the technical care being provided.’ It is plausible that patients with higher levels of satisfaction experienced better communication. Patient adherence to instructions, then, is more likely to occur because of effective communication.” The authors also noted a widespread underuse of professional interpreters among clinicians, which may be due to barriers like time, cost, and lack of knowledge and training.

24. Cheng T. C., Guo Y. Adult Immigrants' Utilization of Physician Visits, Dentist Visits, and Prescription Medication. *J Racial Ethn Health Disparities*. 2019;6(3):497-504.

Researchers analyzed secondary data extracted from the National Health and Nutrition Examination Survey (NHANES) 2011–2012, and considered noninstitutionalized adults aged 18–64 years old, born outside of the United States and who identified as White, Black, Hispanic, or Asian (n=1,480 people). They used three dichotomous outcome variables representing health care utilization (e.g., visiting a physician, dentist, or using a prescription medication). Researchers used self-report health to represent medical need. Researchers considered explanatory variables of sex, age, and marital status. They also considered race and ethnicity, education level, income, health insurance coverage, eligibility for government-sponsored health insurance, and acculturation (considered through language spoken at home and citizenship status). NHANES data did not include survey respondents’ geography, proximity to health services, or experience of acculturation. Through descriptive analysis, of 1,452 immigrant survey respondents, “43.1% had visited a physician, 52.5% had visited a dentist, and 35.5% had used prescription medication during the 12 months preceding the NHANES interview... 5.5% were non-Hispanic White, 9.6% were Black, 39.7% were Asian, and 45.2% were Hispanic.” The analysis found that the likelihood of using prescription medication was associated negatively with self-reported health (OR = .68, $p < .01$), male gender (OR = .69, $p < .01$), and US citizenship (OR = .65, $p < .01$). Such likelihood was associated positively, however, with age (OR = 1.07, $p < .01$), non-Hispanic White ethnicity (OR = 2.37, $p < .01$), having private insurance (OR = 2.02, $p < .01$), and having public insurance (OR = 3.14, $p < .01$.)” The researchers discussed that results showed that survey respondents in poor health were more likely to use a prescription, inferring that people who perceive a need will access a prescription drug; this was not true of those respondents reporting poor health seeing a physician. The study found that “physician visits were associated negatively with Hispanic ethnicity, poverty-level family income, and English-language proficiency.” Researchers did not find an association between use of prescription medication and educational attainment. Female respondents were also positively associated with prescription use and dental visits than males. Further “obtained odds ratio indicated that public health insurance was a stronger positive influence on utilization of prescription medication than private coverage was,” which the researchers posited may be related to financial resources and accessible sales outlets. Researchers did not find association between the length of time a person lived in the US and doctor or dentist visits or prescription use. Researchers did not link English proficiency to prescription use, however, there was an association between spoken English proficiency and physician and dental visits, both of which the study implied, were negatively affected by limited language proficiency. Additionally, the study did show that limited English proficiency did not deter survey respondents from seeing a physician when ill, however the researchers did note that language barriers may lead to prescription-use errors that could threaten health. The researchers’ concluded that removing language barriers would increase access to physicians, dentists, and prescriptions, adding that for

medication safety purposes, “pharmacists should ensure that information on and instructions for using prescribed drugs reach immigrants in a language they read or at least understand.”

25. Al Shamsi H., Almutairi A.G., Al Mashrafi S., et al. Implications of Language Barriers for Healthcare: A Systematic Review. *Oman Medical Journal*. 2020;35(2):e122.

Al Shamsi et al. conducted a systematic review to investigate the impact of language barriers on the delivery of healthcare and to suggest solutions to address the challenges. Researchers searched two databases (i.e., PubMed and Medline) for research published between 2000 and 2019. A total of 1211 original articles were identified, of which (n=14) met inclusion criteria (i.e., focus on language barriers, peer-reviewed, primarily conducted in healthcare organizations). Of the included studies, 9 studies used a cross-sectional design, 2 used a prospective design, 2 used qualitative research, and 1 was a report. Studies were conducted in various countries including the U.S. (5 studies), Saudi Arabia (2), Switzerland (2), Canada (1), Germany (1), England (1), Norway (1), and South Africa (1). A total of 300,918 participants were involved in the 14 studies, with the number of participants in each study ranging from 21 to 22,353. Studies focused on various components: 7 focused on language barriers and patient satisfaction, 2 on the impact of language barriers on healthcare provider satisfaction, 1 on the impact of language barriers on both healthcare providers and patient satisfaction, 2 on the cost of interpretation services, 1 on the quality of interpretation services, and 1 on online translation tools. A cross-sectional study conducted in Saudi Arabia with interviewees (n=116) found “among patients who received treatment from nurses who did not speak the local language, 30% had difficulty understanding medical instructions, 30% had a problem with the reliability of information, and 50% believed that the language barrier contributed to errors.” Results of a U.S.-based telephone survey (n=1200) found that “among patients who did not speak the local language, 49% had trouble understanding a medical situation, 34.7% were confused about how to use medication, 41.8% had trouble understanding label on medication, 15.8% had a bad reaction to medication due to a problem understanding their healthcare provider’s instructions.” Similarly, a Canadian study (n=297) found that “66.7% [of patients who didn’t speak the local language] faced a barrier when accessing healthcare, and 20% did not seek healthcare services if these were not readily available for fear of not understanding their healthcare provider.” Results of another U.S. study of 1,083 incident reports across 6 hospitals found that “many patients with limited local language proficiency experienced adverse events that resulted in detectable physical harm (49.1% of patients) or moderate temporary harm (46.8%) or experienced some failure in communication with medical providers (52.4%).” Results of a mailed survey to patients (n=2,746) from 11 health centers in the U.S. showed that “patients with language-discordant providers reported receiving worse interpersonal care and less health education.” Authors note that language barriers contribute to miscommunication between medical providers and patients, which “contributes to a reduction in the satisfaction of both medical providers and patients, the quality of healthcare delivery, and patient safety.” Additional studies indicate that “language barriers contribute to medial professionals’ incomplete understanding of patients’ situations, delayed treatment or misdiagnoses, poor patient assessment and incomplete prescribed treatment.” Moreover, even when patients have access to healthcare, language barriers contribute to “decreased satisfaction with that healthcare, decreased understanding of their diagnoses, and increased medication complications.” Although limited by access to and financial burden of, “the use of interpreter services contributes to increased patient satisfaction and improved patient care among patients [experiencing] language barriers.” Specifically, “[i]nterpreter services have a

significant association with increased physician visits, prescription drugs by physicians, and receipt of preventative services among patients.” Healthcare professionals are also attempting to meet patient needs with translation software like MediBabble (an application created by medical students at the University of California, San Francisco) and Google Translate. Authors noted a limitation of this work is that there are only a few studies on the application of online translation tools in healthcare to address the problem of language barriers.

26. Himmelstein J., Himmelstein D. U., Woolhandler S., et al. Health Care Spending And Use Among Hispanic Adults With and Without Limited English Proficiency, 1999-2018. *Health Aff (Millwood)*. 2021;40(7):1126-1134.

The researchers examined health care spending differences by English proficiency status and the long-term health care utilization patterns of those with or without English proficiency. The researchers used nationally representative self-reported survey data of respondents 17 years old and older from the Healthcare Research and Quality’s Medical Expenditure Panel Survey (MEPS) from 1998 through 2018. They compared Hispanic adults with limited English proficiency to both Hispanic and non-Hispanic adults who were English proficient. The researchers determined limited English proficiency based on whether the MEPS survey was taken in Spanish or in English. Health care utilization was assessed through mean annual health care expenditures per capita for each category of health services (e.g., outpatient visits, ED visits, hospitalizations, and prescriptions) and mean annual counts per capita for health services. Expenditures were adjusted to 2018 dollars. Modeling controlled for age, sex, income, self-reported health status, education, and census region. Unmeasured confounders included the survey respondents’ state of residence, access to language services, and geographical variance of health care costs. The researchers pooled survey respondent data from 2014 through 2018 for all analyses except time trends for an optimized sample size (17,776 Hispanic adults with limited English proficiency, 14,936 Hispanic adults who were English proficient, and 87,834 non-Hispanic adults who were English proficient). Researchers’ analysis showed that “[a]dults with limited English proficiency had lower expenditures than the comparison groups for every type of health service in both adjusted and unadjusted analyses... The number of visits and prescriptions per capita followed a similar pattern: Hispanic adults with limited English proficiency had markedly lower visit rates than either comparison group, as well as fewer inpatient days and filled prescriptions.” For example, “expenditures per capita for Hispanic adults with limited English proficiency were \$1,463 lower (98% CI: 1,030, 1,897), or 35 percent lower, than for Hispanic adults who were English proficient and \$2,802 lower (98% CI: 2,356, 3,247), or 42 percent lower, than for non-Hispanic adults who were English proficient.” The researchers discussed that limited English proficiency is associated with less health care use. Researchers found a persistent gap, as measured by spending on health care services, in use of care between Hispanic adults with and without English proficiency between 1999 and 2018. Within the same time frame, the gap of use has widened between Hispanic adults with limited English proficiency non-Hispanic, English-proficient adults. The researchers’ analysis determined that people with limited English proficiency showed substantial rates of missed age-appropriate health screenings. Researchers discussed potential causes for language-based differences in health care utilization and the gaps as a potential result of language-based inequities and health care access: “Non-English speakers may be less likely to seek care for health concerns, anticipating that their needs might not be met... Even when care is sought, the lack of language concordant clinical and administrative staff in many health care organizations may make navigating the health care

system more difficult...” The researchers contextually cited the number of people in the United States who speak Spanish at home (41 million people or 13.5% of the population) and the number of people who have limited English proficiency (25 million people or 8.2% of the population).

27. Clark J.R., Shlobin N.A., Batra A., et al. The Relationship Between Limited English Proficiency and Outcomes in Stroke Prevention, Management, and Rehabilitation: A Systematic Review. *Frontiers in Neurology*. 2022;13(February 2022).

Clark et al. conducted a systematic review to “identify differences in outcomes in stroke care prevention, management, and recovery between individuals with and without English proficiency in English-predominant healthcare settings.” Using the PubMed, Embase, Scopus, and Web of Science databases, researcher identified 891 unique articles, of which 20 (17 of good quality and 3 of poor quality) met inclusion criteria (i.e., published or translated into English, full-length journal article with full text available, content related to stroke and LEP, discussing prespecified outcomes [e.g., patient usage of and adherence to preventative stroke care regimens]). However, 11 of the 20 articles did not provide information about interpreter availability or usage, which authors noted limited “the ability to draw conclusions about the effect of LEP on measured outcomes in these studies.” Most studies were conducted in English-predominant countries (13 studies from the U.S., 4 from Australia, 2 from Canada, and 1 from the United Kingdom). Four studies examined pre-stroke elements of patient care (e.g., awareness of symptoms and preventative treatment), 12 studies looked at factors of acute stroke care (e.g., presentation, inpatient management, and outcomes), 5 studies considered post-stroke care (e.g., rehabilitation and quality of life), and 1 looked at acute and post-stroke outcomes. A cross-sectional U.S. study examining pre-stroke factors asked survey participants (n=25,426) to identify stroke symptoms. Results showed that “after adjusting for sociodemographic characteristics, healthcare access, and cardiovascular risk factors, Spanish-speaking Hispanic respondents were [statistically significantly] less likely than English-speaking Hispanic, non-Hispanic White, and non-Hispanic Black respondents to correctly identify all stroke symptoms listed in the study’s survey” (18% of respondents vs. 31%, 50%, and 41%, respectively). Another study found that “not speaking English was independently associated with describing warfarin indication discordantly with acceptable responses, but not with providing discordant descriptions of stroke.” Specific to acute care, “[m]ultivariate analysis accounting for sociodemographic factors and stroke severity showed that non-English-preferring patients who did not receive a [professional medical interpreter (PMI)] were less likely to receive defect-free care than patients who did receive PMI (61.5 vs. 73.9%, p=0.04, adjusted model odds ratio 0.49, 95% CI 0.25-0.94), where defect-free care represented receipt of all treatment measures for which a patient was eligible”. Specific to post-stroke care, one study found that “patients often saw rehabilitation tasks as tests of competence rather than constructive activities, felt little agency in the decision of whether or not to involve a PMI, and commonly settled for ‘getting by’ in English despite varying levels of proficiency.” On the other side, one study with rehabilitation therapists found that “rehabilitation was affected by language barriers...lower frequency of visits due to difficulty logistically arranging PMI services or interpreter unavailability for uncommon languages and dialects, extended sessions due to need for translation, and lower likelihood of providing written materials due to absence of writing translation services.” Overall, 4 studies “associate LEP with suboptimal results across multiple important metrics of pre-stroke care, showing that [people with LEP] have lower awareness of stroke symptoms and experience greater difficulty with

medication regimens, reflected by less TTR while undergoing chronic anticoagulation.” Despite similar intensity of care, anticoagulation clinics showed poorer results for patients with LEP, “indicating that communication and adherence to regimens outside of the clinic may be principal sources of inequity.” Authors recommend healthcare systems provide accessible translation services for written information to complement patient-provider discussions. Authors further discussed both acute stroke care and post-stroke care, noting that “providers should be aware that [patients with LEP] are at risk of lower post-stroke quality of life” and therefore strategies to communicate with patients with LEP should be considered in continuing care. The fact that 11 studies either lacked the ability to analyze rates of PMI usage or language concordant vs. discordant encounters or did not describe these data limited findings. Without consideration of language access studies “may fail to observe the vulnerability of [people with LEP] who do not receive proper PMI services in a language discordant environment.” Additionally, no studies reviewed discussed the quality of interpretation services provided. Authors concluded that “stroke patients with LEP face barriers to equitable care at multiple stages [...] [and] may benefit from tailored education regarding stroke symptom recognition and medication regimens.” Moreover, “services which translate written material will enhance the ability of patients to participate fully in their care and recovery.”

28. Ramirez N., Shi K., Yabroff K. R., et al. Access to Care Among Adults with Limited English Proficiency. *J Gen Intern Med.* 2022.

Ramirez et al. noted that studies evaluating the association between LEP and access to healthcare were conducted prior to the Affordable Care Act. While two pre-ACA studies used nationally representative data, neither used the federal government definition of “limited English proficiency” (i.e., “answers ‘not at all, not well, well’ to the question ‘how well do you speak English?’”). The authors used 2014-2018 data from the Medical Expenditure Panel Survey (MEPS) Household Component, which is a nationally representative survey of U.S. adults that includes measures related to health insurance coverage, access to and use of healthcare, demographic information, and health history. Data showed that 9% of respondents were people with LEP. Overall, “[a]dults aged 18 [through] 64 years with LEP were significantly more likely to lack a usual source of care [...], not have visited a medical provider [...], and to be overdue for receipt of preventive services, including blood pressure check [...], cholesterol check [...], and colorectal cancer screening [...] than adults without LEP.” More specifically, people “who reported speaking English ‘well,’ ‘not well,’ or ‘not at all’ reported worse perceive access to care compared to those who were proficient, with [people] who reported speaking English ‘not at all’ three times more likely to lack a usual source of care provider.” People who reported speaking English ‘not at all’ were also twice as likely to have not visited a healthcare provider or had their blood pressure checked in the last year. The authors concluded that “[a]dults with [LEP] are more likely to face structural barriers in access to healthcare including ineffective patient-physician communication, inadequate health insurance coverage, and worse receipt of preventive services.” People with LEP were more likely to report being uninsured or experiencing health insurance coverage disruptions compared to people without LEP. The authors stated that, “high levels of uninsurance and health insurance coverage disruptions are particularly striking and concerning as health insurance coverage is one of the most important modifiable factors determining access to health care. Due to legal and policy contexts governing access to resources, adults with LEP, who are less likely to be U.S.-born, are subjected to stricter health insurance coverage eligibility requirements and exposed to greater complexity and administrative

burden in determining eligibility and acquiring and maintaining health insurance coverage.” The authors stated that this study found that adults with LEP were more likely to experience worse access to healthcare, “even after implementation of the health insurance coverage and civil rights protections of the ACA” and that findings are consistent with studies conducted prior to the implementation of the ACA.

29. Quan K., Lynch J. The High Costs of Language Barriers in Medical Malpractice National Health Law Program: School of Public Health, University of California, Berkeley;2010.

Quan et. al examined when language barriers may have resulted in harm to a patient by analyzing 35 medical malpractice claims of a malpractice carrier that insures patients in 4 states. These 35 claims represented 2.5% of the Carrier’s 1,373 total malpractice claims from January 2005 through May 2009. Criteria for inclusion was based on whether the patient or physician spoke a primary language other than English, was unable to speak English, or was a person with limited English proficiency. Claims did not identify the name of any physician, health care provider, patient or any private health information. The study collected language proficiency, location of medical training, country of nativity, medical condition of the patient and the physician. The 35 cases were grouped by theme related to the provision of language services and included: failure to provide competent oral interpretation; failure to provide written translations of important documents; inadequate documentation; and allegations of discrimination. The claims highlighted that cases result in patients suffering death and irreparable harm. In the majority of cases (32 of 35), it was found that the healthcare provider did not use a competent or trained interpreter. Some cases documented in the study used a minor child as an interpreter. Minors are not trained interpreters; they may not interpret accurately, are prone to omissions, additions, substitutions, and volunteered answers. Further, they are less likely to comprehend medical terminology to accurately interpret either the English or in the language of the patient and likely not able to fully participate in a medical discussion. Failure to translate documents such as consent forms and discharge instructions was present in 12 of the 35 cases (34%). The study found patients signed English language consent forms, after a provider had acknowledged that a patient spoke or read limited to no English. The study documented legal cases (*Macy v. Batchford* and *McQuitty v. Spangler*) where courts have ruled that consent requires more than just a form and that a patient must understand the issues and information at hand. Further, [u]nder well-established common law, a patient must be given sufficient information about the treatment, benefits, risks and alternatives to make the consent meaningful.” Neary all the cases were found to not provide adequate documentation of a person’s limited English proficiency or the need for an interpreter. Some cases would record that a patient spoke little or limited English but would not note the patient’s spoken language consistently throughout key documents on a patient’s record. There was infrequent documentation as to whether a patient was accompanied with a medical interpreter, or if the intake assessment used an interpreter. The researchers discussed that when a patient’s language is not consistently or accurately documented, providers can miss important relevant medical issues. Failure to document a patient’s preferred language for communication can also result in the denial of language services. Further, “[i]f a provider cannot identify the patient’s language, the provider may have difficulty meeting the patient’s language needs in a timely manner.” Medical teams more commonly assumed Asian patients assumed to have concordant race, ethnicity, or language with their physician, because “many providers tend to aggregate the diverse Asian languages and cultures as “Asian” or “Chinese.”

Providers were confused about the distinctions between Cantonese, Mandarin, other Chinese dialects and Vietnamese; and the nationalities, races, and cultures of patients from Hong Kong, Taiwan, Vietnam and Macau.” Even if a patient’s language was correctly identified, different language dialects were not always considered. The study included 2 discrimination claims in addition to medical negligence; the authors stated that it was “likely that the charge of discrimination would not have been made had it not been for the underlying malpractice claim.” The authors concluded that there are monetary and non-monetary costs for healthcare providers, insurers, and patients, that could be avoided with effective communication: “[t]he investment in language services is far less than the direct and indirect costs of not providing language services.” The authors recommend that providers collect and record accurate language data; recognize a patient’s language needs at each key patient encounter; and document the language services provided throughout the series of patient-provider encounters” to ensure there are appropriate plans in place to “ensure the timely provision of language services throughout the care continuum.”

30. Bailey S. C., Sarkar U., Chen A. H., et al. Evaluation of language concordant, patient-centered drug label instructions. *J Gen Intern Med.* 2012;27(12):1707-1713.

Researchers conducted “a randomized, experimental evaluation to test the efficacy of using the ConcordantRx instructions to improve comprehension among people with limited English proficiency (LEP) compared to standard instructions” and the “effect of the ConcordantRx instructions on regimen dosing and patients’ regimen consolidation.” Researchers recruited a convenience sampling of 202 adults with limited English proficiency from San Francisco and Chicago (n=100 in San Francisco, n=102 in Chicago) who primarily spoke Chinese, Korean, Russian, Spanish, or Vietnamese (n=40 in Russian, Spanish, and Vietnamese, n= 41 in Chinese and Korean). The researchers defined limited English proficiency as the self-identified ability to speak English not well or not well at all, or preference to receive medical care in a person’s native language. Participants randomly received either standard or ConcordantRx instructions printed on Rx labels and affixed to standard 40-dram vials. Standard instructions used typical terminology and times per day approach to explain when a medication should be taken and produced translations by one pharmacy’s translation software. ConcordantRx translated instructions were developed using health literacy best practices, including terminology for 4 distinct time periods to explain when a medication should be taken. Researchers measured 3 outcomes: 1) understanding, 2) regimen dosing, and 3) regimen consolidation. Understanding was coded as correct or incorrect and the analysis considered study site, language, sex, and education characteristics. There was a significant difference in understanding standard versus ConcordantRx instructions in both bivariate analyses (66.0 % vs. 83.0 %, $P > 0.0001$) and multivariable analyses (relative risk ratio [RR]: 1.25, 95 % confidence interval [CI]: 1.06–1.48; $P = 0.007$). Education was found to be the only variable with significant association related to understanding during bivariate analyses. Dosing and consolidation were coded as counts respectively representing the number of medications a study participant correctly dosed in a 5-drug regimen or the number compartments used in a dosing tray. Considering regimen dosing, the median number of medications dosed correctly with standard instructions was 3; the median number of medications dosed correctly with ConcordantRX instructions was 4. Bivariate analyses examining regimen dosing showed that participants with lower levels of education and those who spoke Vietnamese were significantly less likely to dose medication regimens correctly. Multivariate analyses showed receipt of ConcordantRx instructions and lower levels of

education were the only significant, independent predictors of Rx regimen dosing ability (incidence ratio rate [IRR]: 1.19, 95 % confidence interval [CI]: 1.03–1.39; P= 0.02 for instruction type; IRR: 0.75, 95 % CI: 0.57– 0.99; P= 0.04 for less than 9th grade education). Regimen consolidation showed the “median number of times daily that individuals dosed medication in the regimen was 6.0 for individuals receiving the standard instructions versus 4.0 for individuals receiving the ConcordantRx instructions,” with bivariate analyses showing “statistically significant difference in consolidation by sex, with men being more likely to consolidate medications than women” and multivariate analyses showing receipt of the ConcordantRx label as the only significant, independent predictor of regimen consolidation (IRR: 0.76, 95 % Confidence Interval [CI]: 0.64–0.90; P= 0.001). Researchers concluded that LEP adults who received ConcordantRx instructions were significantly more likely than those who received standard instructions to demonstrate how to take a single Rx medication appropriately” and “significantly more likely to dose more medications correctly in a multi-drug regimen and to simplify medication use by consolidating when pills would be taken.” They concluded that their research implied that people who have a greater understanding of medications are more likely to take medications correctly. Researchers also discussed that while there were clear benefits of ConcordantRX instructions, there were only a quarter of participants who correctly demonstrated correct dosing of their medications, which could indicate that Rx labeling alone may not be sufficient in managing medication regimens. Researchers framed their research within the context of patient safety, with poor comprehension of prescription instructions as the root cause of adverse drug events and medication errors.

31. Karliner L. S., Jacobs E. A., Chen A. H., et al. Do professional interpreters improve clinical care for patients with limited English proficiency? A systematic review of the literature. *Health Serv Res.* 2007;42(2):727-754.

Karliner et al. conducted a systematic review of 28 articles published from 1966 through September 2005 that evaluated the impact of professional medical interpreters on quality of care for patients with a non-English language preference. The authors used four measures of quality of care: communication errors and patient comprehension, utilization of clinical care, clinical outcomes, and satisfaction with clinical care. The majority of articles included in the review occurred in the U.S. (20 out of 28; 71%). The authors stated that it is well established that language barriers contribute to health inequities for people with a non-English language preference. Research has demonstrated that people with a non-English language preference have less access to a usual source of care, lower rates of physician visits and preventive services, poorer adherence to treatment and follow-up for chronic diseases, decreased comprehensive of diagnoses and treatment following emergency department visits, lower satisfaction with care, and increased medication complications. The authors concluded that, “use of professional interpreters is associated with improved clinical care more than is use of ad hoc interpreters, and professional interpreters appear to raise the quality of clinical care for [patients with a non-English language preference] to approach or equal that for patients without language barriers.” More specifically, “the findings of this review suggest that professional interpreters are associated with an overall improvement of care for [patients who have a non-English language preference]. They appear to decrease communication errors, increase patient comprehension, equalize health care utilization, improve clinical outcomes, and increase satisfaction with communication and clinical services for [patients with a non-English language preference].” The authors emphasized that “[w]hen only professional interpreters are used, the findings are more

consistent; all studies which clearly identified the effect of professional interpreters show better results with use of interpreters.” The authors explained that improved quality of care is impacted “by the ability of professional interpreters to overcome health communication barriers. Professional interpreters, through their experience, training, and knowledge of both medical and lay terminology are better able to communicate patients’ symptoms and questions to clinicians, and clinicians’ rationale for treatment and explanations of proper use of therapy to patients.” Moreover, “[w]ithout access to professional interpreters, this large and growing population [of people with a non-English language preference] will continue to suffer differentials in both health and access to quality health care.” And, “findings suggest that provision of professional interpreter services can reduce [inequities] in care for LEP populations.”

32. Moore M., Jimenez N., Rowhani-Rahbar A., et al. Availability of Outpatient Rehabilitation Services for Children After Traumatic Brain Injury: Differences by Language and Insurance Status. *Am J Phys Med Rehabil.* 2016;95(3):204-213.

Moore et al. “assessed the availability of outpatient rehabilitation providers and services for children with [traumatic brain injury], stratified by type of insurance accepted and whether multilingual services were offered.” They examined data from a cohort of 82 children who were treated for moderate to severe traumatic brain injury at Harborview Medical Center in Seattle, Washington. Harborview Medical Center is the only level I pediatric trauma center in Washington State, and so treats patients referred from across the state. The authors evaluated association with English proficiency, insurance status, outpatient rehabilitation service availability, and travel time. Overall, they concluded that children in households with a non-English language preference and Medicaid “faced significant barriers in availability and proximity of outpatient rehabilitation services.” Of 293 outpatient rehabilitation service providers, 46% accepted children with Medicaid. There were also fewer rehabilitation services (i.e., physical and occupational therapy; speech, language, and cognitive therapy; mental health) available for children with Medicaid and for children whose family needed language interpretation. For example, “only 8% of mental health rehabilitation services were available to children with Medicaid who also needed language services. Less than half of the physical and occupational services [...] accepted children with Medicaid insurance and were able to provide language services.” Overall, less than 20% of rehabilitation service providers accepted children with Medicaid and provided language interpretation services. Moreover, “multilingual service availability was lowest in counties with greater language diversity; for every 10% increase in persons [older than] 5 years [...] speaking a language other than English at home, there was a 24% decrease in availability of multilingual services.” Spanish-speaking families also had longer travel times to the nearest outpatient rehabilitation services compared to English-speaking families. The authors noted that the intersectionality of race, language, insurance status, location, and other factors impact the availability of and access to healthcare.

33. Language Testing and Certification Program. Find an Interpreter or Translator In: Washington D, ed2023.

Washington Department of Social and Health Services manages a publicly available database through their Language and Testing Center. This database contains information on DSHS interpreters and translators by language, name, geography, national provider identifier, and credential issue date.

34. **Washington State Office of Financial Management. Language spoken at home: Persons Living in Households Where Language Other Than English Is Spoken. 2022.**
The Washington State Office of Financial Management (OFM) provides summary data from the 2020 and 2010 Census.
35. **Limited English Proficiency--Source and methodology. 2020; Available at: <https://www.lep.gov/source-and-methodology>. Accessed 2/5/2023.**
The LEP.gov website is maintained by the U.S. Department of Justice and provides the federal definition for "Limited English Proficiency."
36. **Washington State Military Department Emergency Management Division. Limited English Proficiency v2 Map. In: Officer WSOotCI, ed2019.**
The Washington State Office of the Chief Information Officer maintains the Washington Geospatial Open Data Portal. In 2019, the Washington State Military Department, Emergency Management Division combined data from the 2016 Office of Financial Management "Estimates of population with limited English proficiency for the state and counties" and 2015 U.S. Census "Language spoken at home by ability to speak English for the population 5 years and over." Using these datasets, they estimated the number of languages spoken by 1,000 or more people or 5% of the population by county. Twenty-five counties (out of 39 counties) in Washington State have at least one language other than English spoken by 1,000 or more people or 5% of the population. King County has 27 different languages other than English spoken by 1,000 or more people of 5% of the population.
37. **Washington State Department of Social and Health Services. Cash, Food and Medical Households by Primary Language. 2022.**
WA Department of Social and Health Services publishes a monthly report of the state totals for the number of unique head of household members and the number of unique clients receiving cash, food, or medical benefits, broken down by the clients' primary language.
38. **Proclamation by the Governor [press release]. 2020.**
On March 11, 2020, Governor Jay Inslee issued a proclamation to prohibit social, spiritual, and recreational gatherings in response to the COVID-19 virus. The proclamation was originally set to end on March 31, 2020. The Washington State of Emergency eventually ended on October 31, 2022.
39. **American Psychological Association. Evidence-Based Practice in Psychology: APA Presidential Task Force on Evidence-Based Practice. 2006;61(4):271-285.**
The American Psychological Association (APA) created a policy indicating that the evidence-base for a psychological intervention should be evaluated using both efficacy and clinical utility as criteria. The Association President appointed the APA Presidential Task Force on Evidence-Based Practice and the task force published this document with the primary intent of describing psychology's commitment to evidence-based psychological practices. This document, though, also references many research articles providing evidence for the efficacy of a number of psychological treatments and interventions. The reference list for this document highlights the growing body of evidence of treatment efficacy from the 1970s through 2006. Note that this does

not indicate that all treatments are effective, but rather than there is a very large body of evidence supporting that evidence-based treatments are available.

40. **Ortega P., Shin T. M., Martinez G. A. Rethinking the Term "Limited English Proficiency" to Improve Language-Appropriate Healthcare for All. *J Immigr Minor Health*. 2022;24(3):799-805.**

Ortega, Shin, and Martinez explore language used to describe people with a non-English language preference. Historically, the term "limited English proficiency (LEP)" has been used, but presents several challenges. The researchers point out that LEP is ethnocentric, ambiguous, and deficit-oriented. Use of LEP has contributed to negative health outcomes. The authors recommend patient-centered language ("non-English language preference") and conducting assessment of health professionals' non-English language skills. The researchers describe ways that these changes can improve health outcomes for people with a non-English language preference.

41. **Prather Cynthia, Fuller Taleria R., Marshall Khiya J., et al. The Impact of Racism on the Sexual and Reproductive Health of African American Women. *Journal of Womens Health (Larchmt)*. 2016;25(7):664-671.**

Prather et al. use the socioecological model to describe racism and its effect on African American women's sexual and reproductive health. Authors examine the historical context of racism (e.g., medical experimentation) as well as institutional racism (society), personally mediated racism (neighborhood/community), and internalized racism (family/interpersonal supports and individual). Authors concluded, "[i]n both historical and contemporary contexts, race-based mistreatment has been shown to place African American women at increased risk for HIV/STIs, pregnancy-related complications, and early mortality."

42. **Alhusen J.L. , Bower K.M., Epstein E., et al. Racial Discrimination and Adverse Birth Outcomes: An Integrative Review. *Journal of Midwifery*. 2016;61(6):707-720.**

Alhusen et al. conducted a review of literature to assess the relationship between racial discrimination and adverse birth outcomes. Fifteen studies met inclusion criteria, and "the majority of studies found a significant relationship between racial discrimination and low birth weight, preterm birth, and small for gestational age." Findings of qualitative studies discussed participants' experiences of institutionalized racism related to access and quality of prenatal care. Overall, evidence indicated that "racial discrimination was a significant risk factor for adverse birth outcomes."

43. **Serafin M. Health of Washington State Report: Self-reported Health Status. Data Update 2016. Washington State Department of Health;2016.**

Serafin presents data from Washington state on self-reported health status. The data show that after accounting for age, education, race and ethnicity, household income was a strong predictor of self-reported health status. Health status varied by race and ethnicity, with close to 20% of Native Hawaiian/Other Pacific Islander reporting fair or poor health.

44. **Spoken language interpreters. Available at: <https://www.hca.wa.gov/billers-providers-partners/program-information-providers/spoken-language-interpreters>. Accessed.**

The Washington State Health Care Authority manages a contract with UniversalLanguage to to pay interpreters for clients who utilize Apple Health, and DSHS and DCYF social service appointments.