



HOW HEALTHCARE PROVIDERS MEET PATIENT LANGUAGE NEEDS

HIGHLIGHTS OF A MEDSCAPE PROVIDER SURVEY

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Table of Contents

Introduction	1
Methods	2
Results	3
Survey Respondents	3
Strategies Used	4
Trained interpreters on site	6
Bilingual staff serving as interpreters	7
Use of telephonic interpretation services	7
Ask family members to interpret.....	8
Patient materials are printed in languages other than English.....	8
No strategy to address language barriers or I don't know.....	8
Language Access Plans and Training	8
Have a formal plan for providing language services	9
Do not have a formal plan for providing language services	10
Do not know whether organization has a formal plan for providing services	10
Organization does not provide staff training on its language service plan	12
Do not know whether organization provides staff training on its language service plan	13
Limitations	13
Conclusion	14
Appendix A	15
Appendix B	17
Appendix C	19
Appendix D	21

List of Tables

Table 1.	Strategies Used to Assess or Plan to Meet Patient Needs	5
Table 2.	Number of Strategies Selected for Meeting Patient Needs.....	5
Table 3.	Strategies Used to Meet Language Needs	6
Table 4.	Strategies Used to Meet Language Needs in Different Settings.....	6
Table 5.	Strategies Nurses and Physicians Use to Meet Language Needs.....	7
Table 6.	Nurse and Physician Reporting of Formal Plans for Language Services	9
Table 7.	Reporting of Formal Plans Among Those Using Family Members to Interpret.....	10
Table 8.	Formal Language Plans and Provider Estimates of Percent of Patients with Limited English Proficiency	10
Table 9.	Training on Language Service Plans Reported by Nurses and Physicians	12
Table 10.	Training on Language Service Plans in Selected Settings	12
Table 11.	Training Among Those Using Family Members to Interpret.....	12

List of Exhibits

Figure 1.	Respondents by Practice Setting	3
Figure 2.	Provider Estimates of Percent of Patients with Limited English Proficiency	4
Figure 3.	Formal Plan for Providing Language Services	9
Figure 4.	Training About Language Plans	11

Introduction

Key Findings:

- One third of respondents asked patients about language needs at intake and 10% track patient language preferences in medical records.
- Telephonic interpretation services were commonly used to meet patient language needs.
- Close to 40% of respondents, reported that asking family members to interpret is one of the strategies they used to address language needs. This strategy was particularly popular among those working in private practice.

Data source: August 2013 Medscape provider survey

Language and communication barriers such as those resulting from limited English proficiency can contribute to misunderstandings between patients and providers, obstacles to high quality of care, and negative clinical outcomes. Throughout the United States as a whole, approximately 8% of the population ages 5 and older are individuals with limited English proficiency, and of the more than 52 million Medicare beneficiaries in the United States, approximately 8% demonstrate limited English proficiency. Many of these individuals may need or want language assistance services, such as an interpreter, to communicate effectively with their providers.

There are many different approaches to identifying whether an individual needs language assistance and how to provide that assistance, but some approaches may be less ideal than others. For instance, evidence shows that relying on unqualified interpreters, such as family members, can increase the chance of misunderstanding, unnecessary complications, and in some cases, disability or even death.¹ Understanding the different approaches being used by providers to identify language needs and provide language assistance can help identify where best practices are and are not being used. The extent of need for language assistance services can also vary significantly across different parts of the country, and local level needs may not match state level needs.² These differences highlight the importance of understanding what providers are doing to meet the language assistance needs of their patients with limited English proficiency.

To identify ways to increase the provision of culturally and linguistically appropriate services, the Centers for Medicare & Medicaid Services Office of Minority Health (CMS OMH) sought to better understand how providers identify and meet the language assistance needs of their patients. This report summarizes the results of an online Medscape survey fielded in August 2013 that included questions about languages spoken by patients, strategies used to identify patient needs, and the use of language services to meet these needs. The survey was

¹ Flores G, Abreu M, Barone CP, Bachur R, Lin H. Errors of medical interpretation and their potential clinical consequences: a comparison of professional versus ad hoc versus no interpreters. Ann Emerg Med. 2012 DOI: 10.1016/j.annemergmed.2012.01.025

² CMS Office of Minority Health. Understanding Communication and Language Needs of Medicare Beneficiaries. April 2017. Available online at: <https://www.cms.gov/About-CMS/Agency-Information/OMH/Downloads/Issue-Briefs-Understanding-Communication-and-Language-Needs-of-Medicare-Beneficiaries.pdf>

completed by 4,708 providers across the United States from a variety of professions and practice settings. Increased understanding of the language assistance strategies being used in different settings and by different provider types will help CMS OMH identify areas where best practices are occurring and areas that may need improvement.

Methods

This document describes the results of an online Medscape survey fielded for approximately 30 days in August and September 2013 that included questions about languages spoken by patients and the use of language services to meet patients' needs. The survey was completed by over 4,700 providers ($n=4,708$) across the United States in a variety of areas of practice and practice settings. Those responding to the survey were not selected as part of a population-based sampling strategy. Instead, the survey was launched using a popup script and link on the Medscape website. The target audience was therefore individuals who were already visiting the website during the 30-day period during which the survey was open, primarily physicians and nurses. Individuals chose to respond to the survey and should be considered a convenience sample.

We ran simple descriptive calculations to compare responses across questions. We did not test the statistical significance of any of the results, nor did we run any more complex data processing or statistical tests. All analysis were performed using Stata 14.2 (College Station, TX). Results are presented to the hundredth percentage point; percentages may not add up to exactly 100% due to rounding.

For two questions, we condensed response options into smaller groups for ease of analysis. The first of these was for the question "What is your primary specialty or area of practice?" for which there were approximately 70 response options. We created 12 new variables by grouping responses into categories such as specialty care, primary care, surgery, behavioral/mental health, emergency care, and others. Given the limitations of the sample size, we also condensed the responses to the question "In what state do you practice?", placing each state into its corresponding Census Division³ and running our analysis by division instead of state.

³ There are 9 different Census Divisions. More information on each and what states are included is available here: https://www2.census.gov/geo/pdfs/maps-data/maps/reference/us_regdiv.pdf

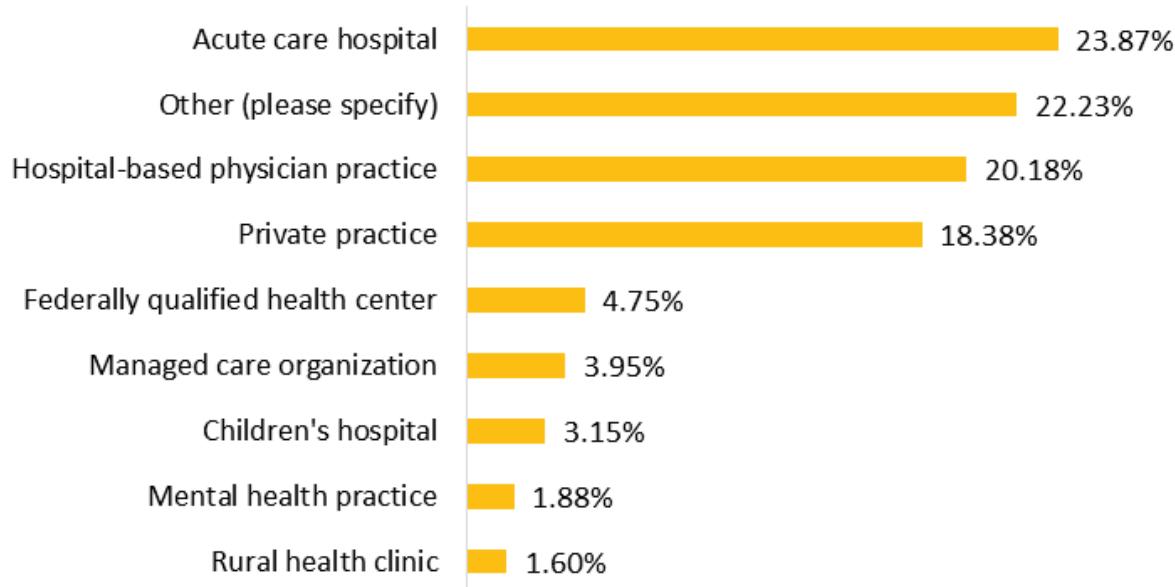
Results

SURVEY RESPONDENTS

Most providers completing this survey were those providing direct patient care – 48% were nurses and 40% were physicians. Pharmacists, physician assistants, medical students, health administrators, and individuals working in some other type of healthcare made up the remaining 12%. Respondents worked throughout the United States, with the highest concentrations of respondents working in the South Atlantic division (Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia; 19%), Pacific division (Alaska, California, Hawaii, Oregon, and Washington; 15%), and the East North Central division (Wisconsin, Illinois, Indiana, Ohio and Michigan; 15%).

Figure 1 illustrates the respondents by practice setting. Approximately 46% indicated they worked either in a setting other than those included as response options (e.g., “Other”) or in an acute care hospital. The “Other” category consists of a wide variety of responses, including a number of individuals who indicated they work in academic settings or medical schools, ambulatory or outpatient care settings, assisted living/long term care facilities, correctional facilities, home health, military facilities, or are retired. Over 20% indicated they work in hospital-based physician practice, followed by 18% in private practice.

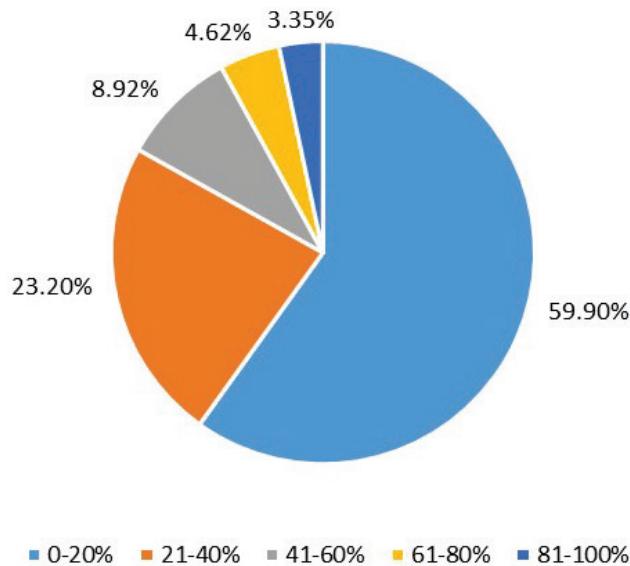
Figure 1. Respondents by Practice Setting



In this survey, providers were asked to estimate the percentage of their patients who speak a language other than English at home. For the purpose of this analysis, we used this data as an estimate of the percentage of patients with limited English proficiency. As illustrated in Figure 2,

60% estimated that between 0-20% of their patients spoke a language other than English at home. Another 23% estimated that between 21-40% spoke a language other than English at home, followed by 9% estimating between 41-60%, 5% estimating between 61-80%, and 3% estimating that 81-100% of their patients spoke a language other than English at home.

Figure 2. Provider Estimates of Percent of Patients with Limited English Proficiency



Respondents were also asked to select which languages were spoken by patients in their practice. Spanish was the most commonly reported language (82%), followed by Chinese (which includes both Cantonese and Mandarin) (24%), Arabic (22%), and Vietnamese (21%). Appendix A lists all of the languages providers reported were spoken by patients in their practice.

STRATEGIES USED

Respondents were asked what strategies they use to either *assess or plan for* meeting the language needs of their patient population (see Table 1). For this question, they were asked to select only a single strategy used. Approximately 32% of respondents selected that they ask about language at intake. Just under 24% of respondents selected that they contract with interpreter services for in-person or telephonic services. Nearly 10% selected that they track patient language preferences in medical record, 8% hire or train multilingual staff, 5% conduct formal assessments of patient language needs, and less than 1% selected that they determine if health plans or other sources will cover the cost of interpretation. Just over 16% of respondents selected that they did not know what strategies were used to assess or plan to meet patient needs, while 4% selected "Other". Generally, those who selected "Other" indicated that they used many of the strategies listed.

Table 1. Strategies Used to Assess or Plan to Meet Patient Needs

Reported Strategies to Assess or Plan to Meet Patient Needs	Percent
Ask about language at intake	31.91%
Contract with interpreter services for in-person or telephonic services	23.49%
I don't know	16.27%
Track patient language preferences in medical record	9.68%
Hire or train multilingual staff	8.11%
Conduct formal assessment of patient language needs	5.47%
Other (please specify)	4.33%
Determine if health plans or other sources will cover cost of interpretation	0.74%

In addition to being asked about the strategies they use to assess or plan to meet patient needs, respondents were asked what strategies they used to address the language needs of their patient population. For this question, they were asked to select all responses that apply. As Table 2 shows, nearly 5% of respondents reported using no strategies, 34% reported using only one of the strategies listed, 22% reported using two of the strategies listed, 21% reported using three of the strategies listed, 13% reported using four of the strategies listed, and 5% reported using five of the response options.

Table 2. Number of Strategies Selected for Meeting Patient Needs

Number of Strategies Selected	Percent
0 strategies	4.61%
1 strategy	33.86%
2 strategies	21.64%
3 strategies	21.05%
4 strategies	13.42%
5 strategies	5.18%
6 strategies	0.23%

This study also sought to understand trends among respondents who selected individual strategies, including whether there was any relationship between the estimated percentage of individuals with limited English proficiency and the strategies providers used to address their needs, although no trends of this nature were identified. With respect to comparisons between provider types, because almost 90% of providers completing this survey were those providing direct patient care, we only compared the strategies nurses/advanced practice nurses and physicians indicated they use to meet patient needs. Additionally, with respect to practice setting, we explored the strategies used only by those individuals who indicated they worked in the top three settings represented among respondents – acute care hospitals, hospital-based physician practices, and private practice. The findings are below and in Appendix B.

Trained interpreters⁴ on site

One third of respondents (33%) indicated they use trained interpreters on site to meet patient needs (see Table 3). As shown in Appendix B, trained interpreters were most commonly used by respondents in the East North Central (18%), South Atlantic (17%), and Pacific (15%) divisions. Acute care hospitals and hospital-based physician practices reported the highest rates of using trained interpreters on site (29% and 29%, respectively). Rural health clinics and mental health practices reported the least (1% and 1%, respectively).

Table 3. Strategies Used to Meet Language Needs

Reported Strategies Used to Address Patient Needs	Percent
Use of telephonic interpretation services	57.80%
Bilingual staff act as interpreters	41.25%
Ask family members to interpret	37.85%
Patient materials are printed in languages other than English	36.21%
Trained interpreters on site	32.88%
No formal strategy to address language barriers	5.16%
I don't know	2.80%

Note: Respondents could select more than one strategy so totals will exceed 100%

When comparing the strategies used to meet language needs across several different settings (see Table 4), we found that those working in private practice used trained interpreters to meet patients needs at lower rates than those in acute care hospitals or hospital-based physician practices (private practice 13%, acute care hospital 40%, hospital-based physician practice 47%).

Table 4. Strategies Used to Meet Language Needs in Different Settings

Reported Strategies Used to Address Patient Needs	Acute Care Hospital n=1,105	Hospital-based Physician Practice n=934	Private Practice n=851
Trained interpreters on site	40.36%	46.90%	12.93%
Bilingual staff act as interpreters	41.18%	39.29%	44.07%
Use of telephonic interpretation services	84.89%	68.09%	25.26%
Ask family members to interpret	36.47%	35.22%	52.06%
Patient materials are printed in languages other than English	48.51%	32.55%	22.33%

Note: Respondents could select more than one strategy so totals will exceed 100%.

⁴ This question used the words “translation”, “translate”, and “translator” rather than “interpretation”, “interpret”, and “interpreter”. Translation refers to the written word while interpretation refers to the spoken word so it is incorrect to use these terms interchangeably. In reporting our results, we have changed the terminology to reflect the correct usage of these terms, rather than reporting verbatim how they were used in the survey itself.

Bilingual staff serving as interpreters

Over 1,900 respondents (41%) indicated that they rely on bilingual staff acting as interpreters as a strategy to meet their patients' language needs (see Table 3). The survey did not specify whether these staff were trained or certified as interpreters, nor did it specify whether bilingual staff ever simply provided care in the patients' preferred language, rather than acting as an interpreter. As Appendix B shows, nurse/advance practice nurse and physicians reported the highest rate of using this strategy (46% and 41%, respectfully). The use of bilingual staff serving as interpreters was most commonly selected by respondents in the South Atlantic (20%) and Pacific (19%) parts of the US. Mental health practices and rural health clinics reported the least utilization of bilingual staff to meet the needs of their patients (2% and 2%). Acute care hospitals relied the most on this approach (24%).

Use of telephonic interpretation services

The most frequently selected strategy to address patient needs was telephonic interpretation; over half of respondents indicated they used this strategy to address patient needs (58%, see Table 3). As illustrated in Appendix B, the top areas that used this strategy were South Atlantic (18%), Middle Atlantic (16%), Pacific (15%), and East North Central (15%). With regard to setting, 35% of respondents using this strategy worked in acute care hospitals and 24% worked in hospital-based physician practices.

Further, as Table 4 above illustrates, when comparing the use of strategies across different settings, we found that among the more than 1,000 respondents who indicated they worked in acute care hospitals, 85% indicated they relied on telephonic interpretation services. In contrast, 69% of respondents who worked in hospital-based physician practices indicated they used this strategy, while only 26% of respondents who worked in private practice did.

As shown in Table 5, of the over 2,200 nurses who responded to the survey, 70% reported that they used telephonic interpretation to meet patient needs. In contrast, of the over 1,800 physicians who responded to the survey, 45% reported using telephonic interpretation services.

Table 5. Strategies Nurses and Physicians Use to Meet Language Needs

Reported Strategies Used to Address Patient Needs	Nurses n=2,264	Physicians n=1,859
Trained interpreters on site	35.29%	31.09%
Bilingual staff act as interpreters	39.62%	42.76%
Use of telephonic interpretation services	69.88%	45.35%
Ask family members to interpret	34.94%	42.55%
Patient materials are printed in languages other than English	43.68%	27.00%

Note: Respondents could select more than one strategy so totals will exceed 100%.

Ask family members to interpret

Although asking family members to interpret is generally considered an approach that should be avoided if possible, as Table 3 illustrates, 1,782 respondents (38%) said they used family members to address patient language needs. As Appendix B shows, physicians and nurse/advanced practice nurses reported the highest use of this strategy (44% and 44%, respectively). Those respondents in the South Atlantic and Pacific divisions reported the highest use of family members to interpret (18% and 16%), and private practice and acute care hospitals reported the highest use of this strategy (25% and 23%).

As Table 5 shows, over 40% of the physicians surveyed indicated they rely on family members to interpret, whereas only 35% of the nurses surveyed indicated they use this strategy to meet patient needs. Additionally, as Table 4 shows, among the over 850 individuals who indicated they worked in private practice, over half rely on family members to interpret (52%). In contrast, approximately one-third of individuals working in each acute care hospitals and hospital-based physician practices indicated they ask family members to interpret (36% and 35%, respectively).

Patient materials are printed in languages other than English

Over 1,700 individuals reported that they rely on printed patient materials in languages other than English as a strategy to address patient needs (36%, Table 3). As Appendix B shows, this strategy was most popular with nurses (58%), and most commonly used in the South Atlantic (20%) and Pacific (39%) divisions. This strategy was most commonly selected by respondents who worked in either acute care hospitals, other, or hospital-based physician practices (32%, 21%, and 18%, respectively).

No strategy to address language barriers or I don't know

Only a small percentage of respondents indicated that they either had no strategy to address language barriers (5%) or they did not know what strategies they used (3%) (Table 3).

LANGUAGE ACCESS PLANS AND TRAINING

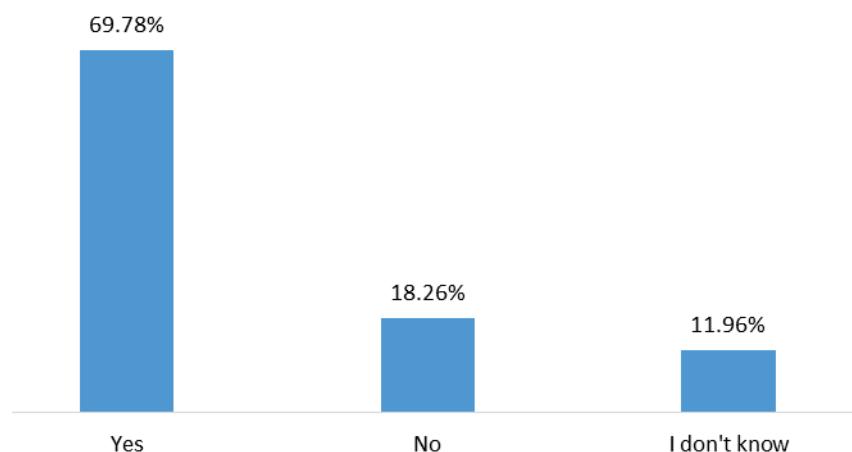
The final two survey questions focused on whether organizations have a formal language access plan⁵ and whether they provide training for their staff about that plan. In addition to understanding how individuals responded to each of these questions, we also explored the characteristics of those individuals by whether their organizations has or does not have formal plans for providing language services. The characteristics of those respondents whose organizations do and do not provide training for staff on their language plans were also explored. The results of this analysis is presented below and included in Appendix C and D.

⁵ The questionnaire did not provide a definition of what was to be considered a formal language access plan.

Have a formal plan for providing language services

As illustrated in Figure 3, nearly 70% of respondents indicated that their organization has a formal plan for providing language services. Acute care hospitals (31%), hospital-based physician practices (23%), or in a setting other than those included as response options ("Other", 19%) were the most commonly reported work settings for respondents (see Appendix C). To meet patient needs, nearly three-quarters of individuals with formal language plans rely on telephonic interpretation services (74%). With respect to the strategies used to assess patient language needs, respondents whose organizations have formal plans for providing language services asked about language at intake (33%) or contract with interpreter services for in-person or telephonic services (30%).

Figure 3. Formal Plan for Providing Language Services



When we assessed reporting of formal plans for language services across different professions, settings, and other characteristics, several interesting findings emerged. Of the over 2,000 nurses responding to this question, 80% indicated their organization has a formal plan for providing language services (see Table 6). In contrast, only 60% of the nearly 1,800 physicians who responded to this question indicated their organizations have a formal plan for providing language services.

Table 6. Nurse and Physician Reporting of Formal Plans for Language Services

Formal Plan	Nurses n=2,200	Physicians n=1,797
Yes	79.59%	59.38%
No	10.27%	28.83%
I don't know	10.14%	11.80%

Surprisingly, as Table 7 illustrates below, 64% of those who indicated that they rely on family members to interpret (a strategy that is typically discouraged and may only satisfy applicable

requirements to provide meaningful access for individuals with limited English proficiency in narrow circumstances, see 45 C.F.R. § 92.201(e)) also reported that their organization had a formal plan for language services.

Table 7. Reporting of Formal Plans Among Those Using Family Members to Interpret

Formal Plan	Ask Family Members to Interpret n=1,774
Yes	64.15%
No	24.01%
I don't know	11.84%

When considering perceived need for services (represented by the estimated percent of patients who speak a language other than English at home), as perceived need for services increased, the reports of having a formal language plan decreased (see Table 8 below). For example, among those who estimated that between 0-20% of their patients use languages other than English at home, 66% reported having a formal plan for language services. In contrast, among those who reported between 81-100% of their patients use languages other than English at home, only 60% indicated they had a formal plan for providing services.

Table 8. Formal Language Plans and Provider Estimates of Percent of Patients with Limited English Proficiency

Formal Plan	0-20% n=2,697	21-40% n=1,044	41-60% n=400	61-80% n=210	81-100% n=148
Yes	66.15%	78.07%	76.00%	72.38%	60.14%
No	21.13%	12.36%	14.75%	15.71%	20.27%
I don't know	12.72%	9.58%	9.25%	11.90%	19.59%

Do not have a formal plan for providing language services

Close to 20% of respondents indicated their organization does not have a formal plan for providing language services (see Figure 3), and of those respondents, 54% indicated they worked in a private practice setting. As Appendix C shows, when working to meet patient language needs, these individuals mostly commonly either ask family members to interpret (51%) or rely on bilingual staff as interpreters (38%), and rarely have trained interpreters on site (7%). When assessing patient needs, those individuals who do not have a formal plan for providing language services 31% ask about language at intake (31%) and 25% do not know what strategies their organization used to plan for patient needs.

Do not know whether organization has a formal plan for providing services

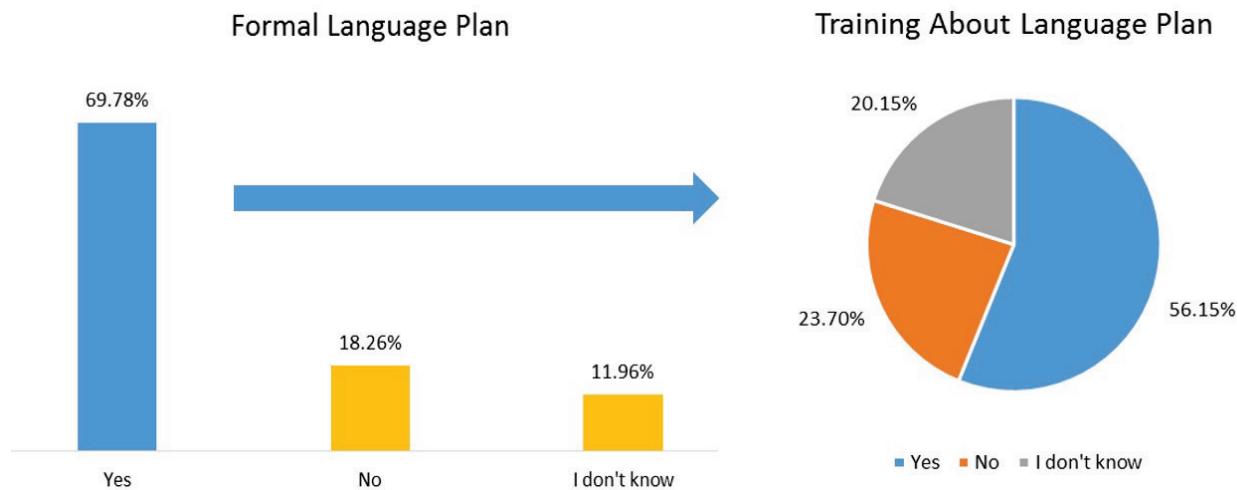
Just under 12% of respondents did not know whether their organization had a formal plan for providing language services (see Figure 3). As Appendix C shows, of these individuals, most

were nurses and physicians (41% and 39% respectively). Among those who did not know whether their organization has a formal plan for language services, most worked in a setting other than the response options (e.g. "Other", 28%), or in hospital-based physician practices (21%). Unsurprisingly, 40% of these individuals reported that they do not know what strategies are used to assess patient needs. These individuals most commonly reported using bilingual staff to interpret (44%), relying on family members to interpret (39%), or using telephonic interpretation services (38%) to meet patient needs.

Organization provides staff training on its language service plan

Among the 3,180 respondents who reported having a formal plan for language services, we sought to understand the availability of staff training and examined patterns across provider demographics. Over half (56%) of those who indicated their organization has a formal plan for language services indicated that their organization provides staff training on its language service plan (see Figure 4). As Appendix D shows, among this group, most were either nurses (64%) or physicians (27%). The three most common work settings for these respondents were an acute care hospital (36%), hospital-based physician practice (20%), or a setting other than the responses presented (19%). Telephonic interpreter services was selected most among these respondents (79%), and with respect to assessing patient needs, asking about language at intake (34%) and indicating their organization contracted with interpreter services for in-person or telephonic services (31%) were the most common responses.

Figure 4. Training About Language Plans



When we explore reporting of training practices among those whose organizations have formal plans for language services across different professions, settings, and other characteristics, several interesting findings emerge (see Table 9 below). Nearly two-thirds (64%) of nurses and advanced practice nurses reported that their organization provided staff training on their language service plan while only 44% of physicians reported such training.

Table 9. Training on Language Service Plans Reported by Nurses and Physicians

Staff Training on Language Service Plan	Nurses n=1,758	Physicians n=1,068
Yes	64.85%	44.38%
No	21.27%	26.40%
I don't know	13.88%	29.21%

We found that less than half of individuals working in private practice (47%) and in hospital-based physician practices (49%) each indicated their organization provides staff training on its language service plan (Table 10).

Table 10. Training on Language Service Plans in Selected Settings

Staff Training on Language Service Plan	Acute Care Hospital n=967	Hospital-based physician practice n=735	Private Practice n=298
Yes	66.49%	48.84%	47.32%
No	19.13%	22.18%	36.58%
I don't know	14.37%	28.98%	16.11%

Interestingly, 51% of those who use family members as interpreters also reported that their organizations provide training around their language service plans (see Table 11).

Table 11. Training Among Those Using Family Members to Interpret

Staff Training on Language Service Plan	Ask Family Members to Interpret n=1,130
Yes	51.24%
No	26.99%
I don't know	21.77%

Organization does not provide staff training on its language service plan

Among those reporting having a formal plan for language services, over 23% of respondents indicated that their organization does not provide any staff training about its language service plan (see Figure 4). As Appendix D shows, the three most common work settings among respondents who indicated their organization does not provide staff training on its language service plan were an acute care hospital (25%), hospital-based physician practice (22%) and a setting other than those described (21%). Respondents in this group indicate they asked about languages at intake (32%) or contracted with interpreter services for in-person or telephonic services (29%).

Do not know whether organization provides staff training on its language service plan

Finally, as Figure 4 shows, among those whose organizations have formal language service plans, one-fifth (20%) said they do not know whether their organization provides staff training about its language service plan. As shown in Appendix D, individuals who were unaware about whether their organization provided training about language plans worked in hospital-based physician practice (34%), acute care hospitals (22%), or a setting other than those described (19%). Half of the respondents who indicated they do not know whether their organization provides staff training were physicians (49%). With respect to strategies to assess patient needs, 33% indicated their organization asks about language at intake and 28% noted they contract with interpreter services for in-person or telephonic services.

Limitations

Due to the small number of respondents in the data set and the type of data collected, our analysis was limited in scope. Where possible, we condensed numerous response options to encourage more meaningful results, particularly when comparing results across questions. For instance, we used Census division-level results rather than state-level results to explore the characteristics of respondents. Additionally, the survey did not collect typical demographic information for respondents such as gender, age, race, and ethnicity. As a result, when seeking to understand key characteristics of respondents, the analysis was typically limited to characteristics such as profession, geographic region, and practice setting. We also did not test the data for statistical significance and results should be interpreted accordingly.

The results presented here should be considered as a poll from a convenience sample, rather than a robust survey. Those responding to the survey were not selected as part of a population-based sampling strategy. Instead, individuals chose to respond to the survey and the results may be skewed by those who chose to respond. The results from this survey should not be considered generalizable to the population as a whole as a result of the sampling approach.

It is also important to realize that because this survey relied on providers estimating the percentage of individuals who speak a language other than English in their home, we do not have a robust variable to represent the percentage of individuals with limited English proficiency. For our analysis, we have used this data point as a proxy for need for language assistance services.

Conclusion

Using data from a 2013 online Medscape survey, we found variation in the types of strategies respondents use to assess and meet patient language needs, as well as in the characteristics of respondents whose organizations do or do not have formal language service plans, and do or do not provide staff training around those plans. Telephonic interpretation was most commonly selected as a strategy used to meet patients' language needs. Using bilingual staff as interpreters was also frequently selected. Almost 38% of respondents also indicated they rely on asking family members to interpret, a strategy which can lead to misinformation and poor outcomes, and which may not meet applicable requirements to provide meaningful access for individuals with limited English proficiency, see 45 C.F.R. § 92.201(e). With respect to planning to meet patient needs, asking about language at intake and contracting with interpreter services for in-person or telephonic services were commonly selected approaches.

We did not find many notable differences when looking at the characteristics of respondents who indicated they used specific strategies. However, we did find that among those who indicated that they rely on family members to interpret, they were most likely to work in private practice, acute care hospitals or a setting not included in the response options. While the responses to "Other" varied, they included a number of individuals who worked in ambulatory/outpatient care, assisted living/long term care, corrections facilities, and home health agencies.

With respect to formal language service plans and training staff about those plans, perhaps the most significant finding was that among those who indicated they did not have a formal language service plan, over half worked in private practice. Although those working in private practice also tended to indicate that a smaller percentage of their patients speak a language other than English, this may nevertheless indicate an area to concentrate efforts focused on the development of language service plans. Additionally, in general, the fact that nearly one third of respondents indicated their organization did not have a language service plan or they did not know whether their organization had such a plan may also provide a platform for education around the importance of appropriate language and communication services and development of plans of this nature. These findings suggest the importance of continued emphasis on equitable care for individuals with limited English proficiency, and education around strategies and best practices to meet their needs.

Appendix A

LANGUAGES REPORTEDLY SPOKEN BY PATIENTS IN PROVIDER PRACTICES

The tables below illustrate the languages providers most commonly reported are spoken by patients in their practices. The first table lists the languages indicated by both number and percent of providers reporting. The second table lists the number of non-English languages providers indicated were spoken within their practices.

Languages Reportedly Spoken by Patients in Provider Practices	Number	Percent*
Spanish	3,871	82.22%
Chinese (Cantonese or Mandarin)	1,139	24.19%
Arabic	1,024	21.75%
Vietnamese	1,003	21.30%
Russian	761	16.16%
Korean	622	13.21%
Hindi	569	12.09%
Tagalog	544	11.55%
French	419	8.90%
Japanese	370	7.86%
Cambodian	367	7.80%
Italian	338	7.18%
Polish	312	6.63%
German	311	6.61%
French Creole	295	6.27%
Portuguese	289	6.14%
Armenian	275	5.84%
Persian	249	5.29%
Hebrew	235	4.99%
Greek	213	4.52%
Serbo-Croatian	210	4.46%
Urdu	210	4.46%
Gujarati	111	2.36%

*NOTE: Percent is a row percent. For example, 82% of all who responded to this question indicated that Spanish is spoken by their patients. Percentages will not total 100%.

Number of Non-English Languages in Practice	Number	Percent
0	519	11.02%
1	1,545	32.82%
2	732	15.55%
3	551	11.70%
4	387	8.22%
5	281	5.97%
6	178	3.78%
7	136	2.89%
8	107	2.27%
9	79	1.68%
10+	193	4.07%

Appendix B

SELECT CHARACTERISTICS OF RESPONDENTS USING SPECIFIC STRATEGIES TO MEET PATIENT NEEDS

The table below shows the percent of respondents using specific strategies to meet patient needs by profession, Census Division, and Setting. Respondents could select more than one strategy.

	Trained Interpreters on Site % (n=1548)	Bilingual Staff as Interpreters % (n=1942)	Use Telephonic Interpretation Services % (n=2721)	Ask Family Members to Interpret % (n=1782)	Patient Materials Printed in Language Other than English % (n=1705)
Profession					
Consumer/Other	0.13	0.05	0.15	0.06	0.18
Health Business/Administration	0.65	0.62	0.66	0.22	1.00
Medical Student	1.87	1.92	1.21	1.24	1.06
Nurse/Advanced Practice Nurse	51.65	46.24	58.20	44.41	58.07
Other Healthcare Provider	1.62	1.60	1.29	1.18	1.88
Pharmacist	4.98	5.88	5.52	5.84	6.75
Physician	37.36	40.98	31.02	44.41	29.48
Physician Assistant	1.75	2.68	1.95	2.64	1.59
Census Division					
New England (Division 1)	9.04	6.05	6.52	6.96	6.62
Middle Atlantic (Division 2)	10.67	12.58	15.83	13.70	13.60
East North Central (Division 3)	18.14	11.12	14.79	13.36	13.48
West North Central (Division 4)	8.97	4.59	7.15	5.72	6.86
South Atlantic (Division 5)	17.22	19.89	18.22	17.94	19.51
East South Central (Division 6)	3.73	2.92	4.81	4.98	4.24
West South Central (Division 7)	9.10	14.14	10.77	12.56	11.63
Mountain (Division 8)	7.86	9.50	6.82	8.49	8.11
Pacific (Division 9)	15.26	19.21	15.09	16.30	15.93
Setting					
Acute care hospital	29.02	23.60	34.74	22.73	31.59

	Trained Interpreters on Site % (n=1548)	Bilingual Staff as Interpreters % (n=1942)	Use Telephonic Interpretation Services % (n=2721)	Ask Family Members to Interpret % (n=1782)	Patient Materials Printed in Language Other than English % (n=1705)
Children's hospital	7.22	2.70	4.15	2.20	4.83
Federally qualified health center	5.47	6.43	4.63	4.17	6.07
Hospital-based physician practice	28.50	19.04	23.56	18.56	17.91
Managed care organization	3.64	4.10	4.81	3.21	4.66
Mental health practice	1.17	2.02	1.26	1.30	1.18
Private practice	7.16	19.45	7.96	24.99	11.20
Rural health clinic	1.37	2.02	1.48	1.58	1.94
Other	16.46	20.64	17.41	21.26	20.62

Appendix C

FORMAL LANGUAGE PLANS

The table below shows the percentage of respondents who indicated their organization has a formal plan for providing language services, does not have a formal plan for providing language services, or they do not know if their organization has a formal plan for providing language services. The results are broken down by profession, Census Division, Setting, Strategies Used to Assess Needs, Strategies Used to Meet Needs, and Estimated Percentage of Patients with Limited English Proficiency.

Formal Plan for Providing Language Services	Yes % (n=3180)	No % (n=832)	I Don't Know % (n=545)
Profession			
Consumer/Other	0.19	0.12	0.37
Health Business/Administration	0.69	0.36	0.55
Medical Student	1.23	0.60	2.39
Nurse/Advanced Practice Nurse	55.64	27.44	41.28
Other Healthcare Provider	1.67	1.08	2.20
Pharmacist	5.48	4.93	9.54
Physician	33.60	62.33	38.90
Physician Assistant	1.51	3.13	4.77
Census Division			
New England (Division 1)	6.48	5.38	7.79
Middle Atlantic (Division 2)	14.43	13.69	13.54
East North Central (Division 3)	15.68	11.74	14.29
West North Central (Division 4)	7.63	5.01	4.45
South Atlantic (Division 5)	18.20	21.76	20.59
East South Central (Division 6)	4.69	5.75	6.31
West South Central (Division 7)	10.76	13.69	10.95
Mountain (Division 8)	7.02	9.54	7.42
Pacific (Division 9)	15.10	13.45	14.66
Setting			
Acute care hospital	30.90	3.86	15.16

Formal Plan for Providing Language Services	Yes % (n=3180)	No % (n=832)	I Don't Know % (n=545)
Children's hospital	4.15	0.36	1.85
Federally qualified health center	5.07	2.42	6.28
Hospital-based physician practice	23.39	8.70	20.70
Managed care organization	4.60	1.45	4.25
Mental health practice	1.55	1.69	4.25
Private practice	9.38	53.62	17.74
Rural health clinic	1.49	1.69	2.22
Other	19.46	26.21	27.54
Strategies to Assess Needs			
Ask about language at intake	33.45	31.38	24.33
Conduct formal assessment of patient language needs	6.38	4.13	2.09
Contract with interpreter services for in-person or telephonic services	29.70	6.00	13.50
Determine if health plans or other sources will cover cost of interpretation	0.51	1.63	0.57
Hire or train multilingual staff	6.95	12.13	8.37
Track patient language preferences in medical record	10.35	8.63	7.41
I don't know	9.80	25.38	40.30
Other	2.85	10.75	3.42
Strategies to Meet Needs			
Trained interpreters on site	43.99	6.61	16.51
Bilingual staff act as interpreters	43.18	38.10	44.04
Use of telephonic interpretation services	74.43	16.35	37.80
Ask family members to interpret	35.79	51.20	38.53
Patient materials are printed in languages other than English	44.06	20.91	23.30
No formal strategy to address language barriers	0.85	20.79	7.71
Estimated Percent of Patients with Limited English Proficiency			
0-20%	56.74	69.43	64.23
21-40%	25.92	15.71	18.73
41-60%	9.67	7.19	6.93
61-80%	4.83	4.02	4.68
81-100%	2.83	3.65	5.43

Appendix D

STAFF TRAINING ON LANGUAGE ACCESS PLANS

The table below shows the percentage of respondents who indicated their organization provides training about their language access plan, does not provide training, or they do not know if their organization provides training on their language access plan. The results are broken down by profession, Census Division, Setting, Strategies Used to Assess Needs, Strategies Used to Meet Needs, and Estimated Percentage of Patients with Limited English Proficiency.

Provides Staff Training About Language Plans	Yes % (n=1789)	No % (n=755)	I Don't Know % (n=642)
Profession			
Consumer/Other	0.28	0.00	0.47
Health Business/Administration	0.90	0.53	0.47
Medical Student	0.56	1.20	3.14
Nurse/Advanced Practice Nurse	63.83	49.80	38.36
Other Healthcare Provider	1.57	2.40	1.26
Pharmacist	5.26	6.26	5.19
Physician	26.54	37.55	49.06
Physician Assistant	1.06	2.26	2.04
Census Division			
New England (Division 1)	7.33	4.21	6.52
Middle Atlantic (Division 2)	13.06	16.69	15.90
East North Central (Division 3)	16.52	13.03	15.90
West North Central (Division 4)	8.23	6.38	6.84
South Atlantic (Division 5)	18.74	20.49	15.42
East South Central (Division 6)	4.88	4.61	4.13
West South Central (Division 7)	8.92	13.70	11.45
Mountain (Division 8)	7.44	7.60	5.09
Pacific (Division 9)	14.88	13.30	18.76
Setting			
Acute care hospital	36.27	24.90	22.17
Children's hospital	3.95	3.23	5.90
Federally qualified health center	5.08	6.59	4.31

Provides Staff Training About Language Plans	Yes % (n=1789)	No % (n=755)	I Don't Know % (n=642)
Hospital-based physician practice	20.25	21.94	33.97
Managed care organization	5.02	2.96	5.42
Mental health practice	1.30	2.02	1.44
Private practice	7.95	14.67	7.66
Rural health clinic	1.47	2.29	0.64
Other (please specify)	18.73	21.40	18.50
Strategies to Assess Needs			
Ask about language at intake	34.06	31.50	32.62
Conduct formal assessment of patient language needs	7.77	5.91	3.13
Contract with interpreter services for in-person or telephonic services	30.69	29.30	27.84
Determine if health plans or other sources will cover cost of interpretation	0.40	0.69	0.66
Hire or train multilingual staff	6.34	8.53	7.58
Track patient language preferences in medical record	5.83	12.52	17.13
I don't know	3.14	2.89	2.14
Other	11.77	8.67	8.90
Strategies to Meet Needs			
Trained interpreters on site	45.00	34.44	49.38
Bilingual staff act as interpreters	41.36	46.75	42.06
Use of telephonic interpretation services	78.87	65.96	66.82
Ask family members to interpret	32.36	40.40	38.32
Patient materials are printed in languages other than English	48.13	39.74	35.67
No formal strategy to address language barriers	0.28	1.72	1.40
Estimated Percent of Patients with Limited English Proficiency			
0-20%	57.23	53.98	58.00
21-40%	25.99	24.83	26.49
41-60%	10.17	10.80	7.75
61-80%	4.07	6.48	5.17
81-100%	2.54	3.91	2.58