

Challenges in Language Services: Identifying and Responding to Patients' Needs

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Abstract *Objective* Identify characteristics of hospital-based language services (LS), and describe practices of identifying patients with limited English proficiency (LEP) and interpreter training. *Participants* Seventy-one hospitals applied to participate in a national initiative. Applicants were non-federal, acute care hospitals with substantial LEP populations, at least 10,000 discharges, and in-person interpreters. *Methods* Descriptive statistics were generated on language, collection of language data, LEP volume and service utilization, staffing and training requirements and organizational structure. The relationship between admissions and encounters was analyzed. *Results* Ninety percent of hospitals collect primary language data. Spanish is the most common language (93% of hospitals). We found no statistically significant correlation between admissions and encounters. Eighty-four percent require training. Eighty-nine percent have a designated LS department but no clear organizational home. *Conclusions* Hospital-based LS programs are facing challenges identifying patients with language needs, staffing and training a workforce, and creating an organizational identity. Need is not associated with utilization, suggesting that LS are not reaching patients.

Keywords Language services · Interpreter services · Hospitals · Language barriers

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Background

Effective communication is an essential element of quality within the health care experience. Communication barriers arise when patients are limited in their English proficiency [1]. These barriers can result in misdiagnoses [2], poor treatment decisions [3], a lack of trust between patient and provider [4], and limited adherence to treatment plans and therapies among patients with limited English proficiency (LEP) [5–7]. While there is no standard definition for “LEP” and there are many levels of language proficiency, a method for identifying LEP patients is key for the provision of language services. For the purpose of this study, patients with LEP are individuals who do not speak English as their primary language and who have a limited ability to read, speak, write or understand English. Studies show that patients who need an interpreter but do not receive one are less likely to understand the instructions for taking medications, less likely to receive information on medication side effects, and less likely to be satisfied with their care [8–10]. Evidence also shows that patients who receive services from trained professional interpreters tend to be more satisfied with their care [10–12].

The initiation and development of language services (LS) in health care organizations is one of the principal responses of the health care system to language barriers. Implementation of these programs can increase access to care, improve resource utilization, increase patient satisfaction and enhance quality of care, health outcomes, and health status among LEP patients [13–16].

Conceptual Framework

Governmental and private sector organizations have offered guidance to health care organizations to help

identify best practices in the delivery of LS [17–19]. Among the practices considered to be essential in the development of a quality LS program are: (1) the capability to identify and track LEP patients and (2) the ability to provide competent and appropriately trained interpreters.

Little is known about health care organizations' success in implementing these elements in the field. This study examined the extent to which these principal practices were being realized by hospital LS programs, using a unique sample of 71 hospitals with established interpreter programs. It also identified two additional components, organizational structure of LS and LS volume and utilization, that may have presented challenges for hospitals as they attempted to reduce barriers through the implementation of LS.

While the information in this study may have been readily available at hospitals that have established, sophisticated LS programs and was likely examined on the individual organization level, this study provides a new contribution to the field by bringing together information from 71 hospitals, the largest dataset of its type to date. This study, while small in sample size, can be used to help the field identify key areas of hospital LS that should be examined to ensure that LS are appropriately and efficiently provided to LEP patients.

Methods

Study Design

In April 2006, 71 hospitals submitted proposals to a health care foundation to participate in a nationwide initiative [20] to improve the quality of LS [21]. The initiative was open to non-federal, acute-care hospitals with sufficient LEP population to warrant interest in improving delivery of language services through quality improvement efforts, a minimum of 10,000 annual discharges, and at least some in-person professional interpreters.

The proposal consisted of two sections. The first section included 20 general questions related to the characteristics of the hospital, its patient population and LS program. Responses in this section were confined to discrete-response categories provided through a drop-down menu. The second section consisted of 16 open-ended questions on topics related to LS workforce, strengths and weaknesses of the LS program, experience and interest in quality improvement, and organizational commitment to improvements in care delivery for patients with LEP. We obtained IRB approval from George Washington University's Office of Human Research at the beginning of the *Speaking Together* project (IRB # 040606). The approved research protocol included using data from the project for papers, manuscripts, and reports.

Variables of Interest

In addition to variables associated with location, bed size, and hospital governance, hospitals reported data in the following categories: (1) primary language and collection of language data, (2) LEP patient volume and utilization of services, (3) staffing and training requirements, and (4) organizational structure.

Definitions of Key Variables

Size of LEP populations was defined as the percent of patients who received care from the hospital who spoke, as their primary language, a language other than English. Responses were grouped into three categories, <25% of patients, 26–50%, and 50% or greater. These categories reflected the distribution of LEP patients across sample hospitals and were not likely to be representative of the size of LEP populations in U.S. hospitals. Number of LEP encounters was defined as patient encounters with on-site interpreters who worked full-time or part-time at the hospital and/or its outpatient clinics. Hospitals classified these encounters according to seven pre-determined categories that ranged from a low of <500 encounters to a high of >49,000. Hospitals were instructed to include all in-person LS encounters provided in inpatient and outpatient settings under the aegis of the organization, such as in-person interpretation provided by interpreting services staff, contract employees, volunteers, and other staff or clinicians. Encounters provided via telephonic or video interpreting were not included in the estimate. Because there were no standard or universal definitions used by hospitals to define encounters, and the project methodology did not allow for developing a uniform definition among respondents, we did not provide a standard definition of encounter. We were aware that programs varied in terms of the way they counted LS encounters and reported this variable.

We created the variable "number of LEP admissions" using percent of population with LEP and number of hospital admissions. Hospitals provided an estimate of LEP patient volume as a percent of their total patients. To control for variation in overall volume across hospitals, we estimated the number of LEP admissions by multiplying the hospital's reported proportion of LEP patients by the total number of admissions as indicated by the 2005 American Hospital Association survey [22]. Since hospitals reported the percent of LEP patients as a range, the mid-point of the range was used as the multiplying factor.

Analytic Strategies

We analyzed data from the 71 hospital-based LS programs according to four factors (1) hospitals' practices regarding

collection of patients' language; (2) whether provision of services corresponds to need; (3) training and assessment requirements for LS staff; and (4) organizational location of the designated LS department.

Descriptive statistics were generated for each element. We calculated frequencies and cross tabulations for hospital characteristic and LS data derived from discrete response questions. For narrative responses, we grouped common replies into three categories: "yes" for hospitals that reported they had the variable (practices regarding collection of language, training and assessment requirements, provision of services corresponding to need, and organization location of the LS department), "no" for hospitals that report they did not have the variable and "no mention" for hospitals that make no mention of the variable. Variables from narrative response included those associated with location of LS, primary language data collection, interpreter workforce, and training and assessment. To examine whether provision of services corresponds to need, we measured the likelihood of association using the Spearman correlation coefficient. We used Stata 9 statistical analysis software package [23] for all statistical calculations.

The sample size of our hospitals for most of the discrete-response variables was 71. Sample size decreased across a number of the narrative-response questions due to the "no mention" category. In our analysis, we treated the "no mention" responses as non-responses.

Results

Sample Characteristics

The sample of 71 hospital-based LS programs included hospitals from all four major geographic regions as defined by the U.S. Census Bureau [24] and represented 26 states and the District of Columbia (Table 1). Several states were overrepresented in the sample, with six states home to nearly half (49.3%) of LS programs. Eighty-seven percent of programs served primarily urban communities. Mid-sized hospitals made up 62.7% of the sample. Nearly three-quarters (74.7%) of hospitals were not-for-profit.

Criteria for participation in the quality improvement initiative included (1) the existence of a sufficient LEP population to warrant interest in and willingness to invest in improving delivery of language services through quality improvement efforts and (2) the use of some in-person interpretation (as opposed to all telephonic or video interpretation). As a result, the sample was skewed toward hospitals with established programs and larger LEP populations and was not representative of all hospitals with LS programs.

Table 1 Characteristics of the study sample

Characteristic	Hospitals (<i>n</i> = 71) Percent (no.)
Geographic region	
Northeast	32.4 (23)
Midwest	26.8 (19)
South	22.5 (16)
West	18.3 (13)
Hospital size—number of staffed beds ^a	
<300	17.9 (12)
300–699	62.7 (42)
>699	19.4 (13)
Primary market served ^b	
Rural	45.1 (32)
Suburban	63.4 (45)
Urban	87.3 (62)

^a Number of staffed beds as listed in AHA Guide 2006

^b Hospitals could select multiple primary service areas

Identification of LEP Patients, Language Preferences and LS Capacity

Identification of patients with LEP is a critical step in improving LS and the care that LEP patients receive. Knowing where and how hospitals collect these data are also important in terms of assessing hospitals' procedures and their ability to accurately track LEP patients. In our sample, the vast majority of hospitals (90%) collected information on their patients' primary language, although prior research suggests that data collection is uneven and incomplete across the hospitals [25]. Ninety-three percent of the hospitals indicated that Spanish was the most common language spoken by LEP patients. Vietnamese was cited by 18.3% of hospitals as the second most common language spoken by LEP patients, followed by Russian and Chinese (8.5% each).

Most hospitals (83.1%) collected the data during patient registration in both the inpatient and outpatient setting. Additionally, nearly half (49.3%) also collected primary language data at other points during the health care encounter, including patient education sessions, patient history and/or clinical assessment, and discharge. All of the hospitals that collected language data on patients during the registration process did so through electronic data systems. Subsequent data collection efforts involved a combination of electronic and manual data recording.

Availability of in-person interpretation was an indicator of hospitals' capacity to provide LS to LEP patients. Given that one of the criteria for inclusion in the quality improvement initiative was the use of some in-person interpretation, it was not surprising to find that capacity of this service was high in our sample. Over half (53.5%) of

the hospitals provided in-person interpreting services for at least five languages and 46.4% offered in-person interpreting for six or more languages. Six hospitals indicated that they provide in-person interpreting in more than 40 languages. Most of the hospitals with interpreters that provided services in multiple languages included American Sign Language (ASL) among these languages. At five hospitals, ASL was the second most commonly interpreted language.

LEP Patient Volume and Utilization of LS

Examining the volume of LEP patients and the utilization of LS is critical to knowing whether the demand for LS is being appropriately addressed by hospitals. In our sample, over a quarter (26.9%) of hospitals reported that in their overall patient population more than half were LEP. At 23.9% of the hospitals in our sample, between one-quarter and one-half of all patients were LEP. The remaining half of the sample hospitals had LEP populations of 25% or less.

Annual number of interpreter encounters were skewed to the high end with over 1/5 (21.1%) of the hospitals reporting they had 50,000 or more encounters per year and 16.9% reporting they had between 25,000 and 49,999 encounters. At the low end, only 7% of hospitals reported fewer than 500 encounters.

Interestingly, LEP admissions were not significantly correlated with LEP encounters, suggesting that utilization of LS does not necessarily reflect the demand of these services ($r = 0.19$, $P = 0.15$). A scatter plot of the two variables, shown in Fig. 1, illustrates the apparent absence of association between estimated LEP admissions and LEP encounters.

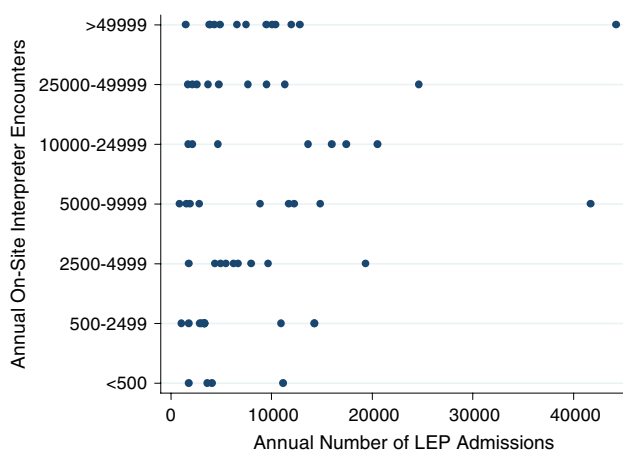


Fig. 1 Annual LEP admissions and interpreter encounters

Staffing and Training Requirements

As language services become more established in hospitals, the composition and the training requirements of the staff will be critical to examine the quality of the services being offered to LEP patients. It is clear that the staffing composition of LS varied; in our sample all of the hospitals delivered LS using a combination of in-house staff, contract, freelance or volunteer interpreters, but the reliance on any one of these methods differed. The most common vehicle for providing LS was through full- or part-time dedicated hospital staff whose principal professional role was the delivery of medical interpretation. The size of the interpreter workforce differed across the hospitals, ranging from 1 FTE to 68 FTE with a median of 13. Over 70% of hospitals reported using contract staff to provide some interpretation and 62.0% indicated that they include bilingual staff as a component of their LS program. Some hospitals in the sample used volunteers to interpret, in conjunction with staff or contract interpreters.

Ninety-seven percent of hospitals in the sample used telephonic interpretation services to support communication between hospital staff and clinicians and patients with LEP, although they used it to very different degrees. Ten hospitals (14.1%) also provided video-based interpreting services.

The majority of hospitals had policies regarding the qualifications of their LS workforce, although these policies varied substantially across the sample. Ninety-five percent of hospitals required that interpreters' language skills be assessed. Eighty-four percent of hospitals either provided training for interpreters or required proof of completion of various training programs; 16% did not have specific training requirements and did not offer interpreter training on-site. No single interpreter training program was consistently used among the hospitals with established training thresholds for interpreters, though several mentioned that they required a 40-h interpreter training program called *Bridging the Gap* [26]. A few hospitals reported that they offered an in-house training program. The median training period was 40 hours and ranged from a low of 2 h to a high of 100 h. Few hospitals provided details about training requirements related to bilingual staff who interpreted on an as needed basis.

Organizational Placement of LS Departments

Where LS were located could indicate the prominence or importance of these kinds of programs within a hospital's structure. Although most of the hospitals in our sample (88.7%) had a designated department that housed LS, the location of these departments varied considerably across

the sample. More than 15 different hospital departments were reported as homes to LS programs. The most common organizational location, mentioned by 19.7% of hospitals in the sample, was in patient/guest relations. The social work/social services department was home to LS at 12.6% of hospitals, the international/cultural competence department housed 11.3% of hospital LS programs, and the community affairs department was home to 9.9% of programs. In other hospitals, LS were located within quality improvement, human resources, the emergency department, the hospital foundation, the communications department, and other operational components of the hospital.

Discussion

Our study drew on data from 71 hospitals to examine the progress hospitals have made in reducing language barriers through the development and implementation of LS programs. Our results suggest that hospital-based LS programs varied significantly in how they identified language needs, met the demand of LEP patients, staffed and trained LS workforce and created an organizational identity within the hospital structure. Given these challenges, it is important that the field of interpreter services considers how best to advance the delivery of language services to LEP patients. This study identified areas of hospital LS that were most challenging and variable across different providers. The suggestions below address ways to advance language services through standardizing definitions and measurement, educating providers and staff about the availability of LS, raising visibility of LS programs, and customizing LS staffing models and programs to an organization's goals and structure.

- Standardizing definitions and concepts are key to advancing language services. The area of language services desperately needs a framework that can help organizations measure their progress in identifying LEP patients, language preference, LEP patient volume, and utilization of LS. *Speaking Together* began efforts to standardize measurement by proposing methods and measures for hospitals to assess delivery of their language services. Measures focusing on how patients are identified as requiring interpreter services and the efficiency with which interpreter services are delivered to those patients were piloted during a quality improvement collaborative, providing the field with benchmarks for identifying, tracking and improving delivery of language services [27]. Standardizing definitions and measures would allow for research replicating this study with larger sample sizes and more robust statistical analyses.

- Provider education and ease of access to LS may help ensure that patients needing LS are receiving them. Our study indicates that the need for LS based on LEP admissions was not correlated with actual interpreter encounters, suggesting that supply did not meet demand. Physicians and nurses need to be aware of the vital services available to them for LEP patients through LS programs. Anecdotal evidence suggests that the easier it is for a physician or nurse to obtain and incorporate LS into their care, the more likely they will include it as routine practice [28].
- A departmental home for LS suggests integration into the organization's strategic goals. Our study suggests there was no consistent home for LS within the organizational structure of the hospital. This finding may indicate that hospitals struggle to figure out how LS fit into their organizational model of delivering high quality care. To the extent that LS can promote their department's positioning or visibility within the organization, the importance of the LS program will be more likely to take on a central role in daily operations of the hospital.
- LS programs should be customized to the structure, needs, and operating culture of the organization. Our study found that hospitals around the country relied on various staffing models for LS, were highly variable in size of LS staff, and varied by whether preferred method of delivery of LS was in-person, telephone, or video. These findings suggest that there are no clear staffing models or modalities of interpretation that have emerged as the preferred model for LS, and that each LS program must be customized based on an organization's culture and capacity to support a particular staffing structure.

Study Limitations

Several important limitations were associated with the data collected from the proposals. First, the applicants were a self-selected group of hospitals and not necessarily representative of all hospital-based LS programs. Based on anecdotal information derived through interviews with LS programs around the country, we believe the sample significantly overstated the size, scope and complexity of hospital-based LS programs. The sample was responsive to the proposal requirements and was clearly biased toward larger programs that had higher numbers of in-person interpreter encounters. Secondly, bias may have been introduced in hospitals' responses due to the nature of the data. The fact that the hospitals' proposals represented applications for a competitive grant that provided both grant funding and technical support could affect the type of information presented and the candor in reporting certain data. Also, the study sample

consisted of data from 71 hospitals only, and findings may not be generalizable to the entire hospital language services industry in the country. However, this database included information about more hospital-based language services than any other available dataset, and supports conducting additional research in the field. Finally, some questions appeared to have been interpreted differently by different applicants thus presenting coding challenges, and the study methodology did not allow for second-source verification of reported data. For example, some hospitals reported number of staff interpreters as full-time equivalents, while others did not specify the meaning of the numbers they reported. Wherever possible, we dealt with uncertainty in the data by creating strict analysis rules and applying these in a standardized manner across all proposals. With some variables, such as LEP encounters, we did not wish to impose a definition on the respondents when no universal definition has been accepted in the field, resulting in a variable that included multiple ways of reporting. Despite these limitations, the information provided by the hospitals about their LS programs and practices offers valuable descriptive information and insights into some of the challenges facing the delivery of hospital-based LS for patients with LEP.

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