The California Endowment

A Partner for Healthier Communities

Language Barriers in Health Care Settings:

An Annotated Bibliography of the Research Literature

Prepared for The California Endowment by:

Elizabeth A. Jacobs, M.D., M.P.P.
Niels Agger-Gupta, Ph.D.
Alice Hm Chen, M.D., M.P.H.
Adam Piotrowski
Eric J. Hardt, M.D.

August 2003

Language Barriers in Health Care Settings:
An Annotated Bibliography of the Research Literature

Editor: Alice Hm Chen, M.D., M.P.H.

Prepared for The California Endowment by:

Elizabeth A. Jacobs, M.D., M.P.P.
Niels Agger-Gupta, Ph.D.
Alice Hm Chen, M.D., M.P.H.
Adam Piotrowski
Eric J. Hardt, M.D.

August 2003

THE CALIFORNIA ENDOWMENT

August 2003

Dear Valued Colleague:

California is one of the most diverse states in the country, and with that diversity comes a multiplicity of spoken languages. To help inform the discussion surrounding language access issues, The California Endowment is pleased to present "Language Barriers in Health Care Settings: An Annotated Bibliography of the Research Literature."

This publication is designed to provide an overview of the research on the prevalence, role and effects of language barriers in health care. It is our hope that this document helps define the framework necessary for ensuring that language access barriers are broken down within the health field, so that all may receive the same level of quality care.

We hope this annotated bibliography becomes a vital resource tool for your work, and we thank you, as always, for being an important partner for healthier communities.

Sincerely,

Robert K. Ross, M.D.
President and Chief Executive Officer

21650 Oxnard Street, Suite 1200, Woodland Hills, California 91367
818.703.3311 Tel
800.449.4149
818.703.4193 Fax
www.calendow.org

Established by Blue Cross of California

Table of Contents:

Introduction 1

About the Authors 3

Annotations 7

Appendices 67

Appendix A:
- Related Research Reports 67
- Dissertations 67

Appendix B:
- Descriptive Key Words 68
- Additional Descriptive and Setting Key Words 69
- Language Key Words 70
- Geographic Key Words 70

Appendix C:
- Glossary 71

Introduction

Why an Annotated Bibliography on Language Access?

Over the past four decades, the United States has attracted immigrants from all around the world, with the majority emigrating from Latin America, Asia and Europe. The resulting increase in ethnic, cultural and linguistic diversity has been accompanied by a great – and growing – need for language access services in health care settings. According to the 2000 Census, nearly 47 million U.S. residents aged 5 or older speak a language other than English at home, and more than 21 million have English proficiency self-rated less than "very well." California is arguably the most ethnically and linguistically diverse state in the country: 39.5 percent of Californians speak a language other than English at home, and one in five Californians has a level of English proficiency that suggests s/he would benefit from language assistance when accessing the health care system.

The issue of language barriers in health care settings has received significant attention in recent years, in large part due to a series of federal policies, including Executive Order 13166 which mandated that all federal agencies review their own policies and procedures to ensure equal access for Limited English Proficient (LEP) clients; the ensuing Department of Health and Human Service's (DHHS) Office of Civil Rights Policy Guidance on Title VI and Language Access; and the DHHS Office of Minority Health's release of the National Standards on Culturally and Linguistically Appropriate Services in Health Care. These and other developments, such as the Institute of Medicine's report, "Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care," have generated substantial debate on the extent and effects of language barriers in health care and the role of health care providers, institutions and government in providing language access for LEP patients.

To better inform this discussion, The California Endowment commissioned an annotated bibliography of the research on the prevalence, role and effects of language barriers in health care. The goal of this publication is to provide a comprehensive – but given the extent and pace of research, not exhaustive – review of the research literature in this area. Our hope is that this bibliography will provide an empirical basis for future discussions about the need for and impact of language access services in the provision of health care.

The Bibliography Compilation

The California Endowment's Language Access Annotated Bibliography builds on references originally compiled by Eric Hardt, M.D., of the National Council on Interpretation in Health Care. We also benefited from the work of Jean Gilbert, Ph.D., who graciously shared her own bibliography with us. These lists were supplemented by MEDLINE (National Library of Medicine), PsycINFO (American Psychological Association), Sociological Abstracts (Cambridge Scientific Abstracts), Periodical Abstracts (Bell & Howell), ArticleFirst, Social Sciences Abstracts (H. W. Wilson Company) and Digital Dissertations (ProQuest/UMI) searches using the Medical Subject Heading terms, "language," "communication barrier," "multilingual" and "translation," as well as text words such as "interpreter," "non-English-speaking" and "limited English proficient." Additional articles were identified from the reference lists of key articles.

The articles included are intentionally multidisciplinary, and include quantitative and qualitative data, international studies, studies from the United States and a diversity of language groups. In our search, we encountered a myriad of valuable publications, including review articles, commentaries, editorials and dissertations, but decided to limit the annotations on the basis of three selection criteria: (1) the article was published in a peer-reviewed journal; (2) a primary focus or finding of the article was specific to language barriers; and (3) the article contained original research. Publications that did not meet the first criteria but that we thought would be of interest to the reader are referenced in Appendix A.

How To Use the Bibliography

The annotations are organized alphabetically by the last name of the first author. Each annotation is categorized with a set of key words that highlights the study's areas of investigation (e.g. adherence, asthma, etc.), health care setting (e.g. emergency medicine), languages (e.g. Spanish) and geographic region (e.g. California). This allows the reader to quickly scan the bibliography to find all articles pertaining to a specific topic. For example, a reader interested in studies that measure costs related to language access can scan the bibliography for all annotations with the key word "cost." The key words and our operational definitions are listed in Appendix B. In the future, this bibliography will also be available as a searchable database.

While the annotations are not meant to be a rigorous or detailed critique of methodology, we attempted to include pertinent information to allow readers to draw their own conclusions about the limitations and validity of the studies (e.g. methodological considerations such as appropriate statistical analysis, adequacy of sample size and the consideration of possible confounding variables). We also tried to make the Annotated Bibliography more reader-friendly by adding a "summary statement" that highlights the crux of each article's findings.

The annotation process was complicated by the fact that the terminology in this area is not yet standardized, so that terms such as "language barrier," "Limited English Proficient" and "interpreter" have different meanings in different articles. For example, many articles use the term "interpreter" for any bilingual person who assisted during the clinical encounter, whereas others limit the term to trained medical interpreters; the findings attributed to these two different groups of "interpreters" are not likely to be comparable. On the other hand, in a given article, different terms may be used for the same concept. For example, the terms "Limited English Proficient," "primary language not English" and "non-English-speaking" are sometimes used interchangeably. Finally, the articles vary tremendously in how the researchers identified people who face language barriers – from asking the treating provider if s/he felt there was a language barrier, to having the admitting clerk decide if a patient was LEP, to asking the patient if s/he needed an interpreter. In a few instances, the article did not actually describe how the study group was identified (for example "Spanish speakers"). In the text of the annotations, we generally use each study's own terminology, but also try to be explicit about how the researchers defined their terms and study groups. To assist the reader, we have included a short glossary that defines some of the common terms used in the field (Appendix C).

Acknowledgements

We wish to thank Ignatius Bau, J.D., Program Officer, Jai Lee Wong, Senior Program Officer, and Melange Matthews of Ascent Associates for their guidance and support of this project.

About the Authors

Elizabeth A. Jacobs, M.D., M.P.P., is a Senior Attending Physician at Cook County Hospital and an Assistant Professor of Medicine at Rush Medical College. Dr. Jacobs spends the majority of her time conducting research on access to, and cultural specificity of, medical care delivered to minority patients. She has conducted research on the impact of providing adequate interpreter services on the cost and quality of care provided to patients with limited English proficiency. She continues to do research in this area and has served on advisory panels for the Robert Wood Johnson Foundation's Hablamos Juntos initiative to improve patient-provider communication for Latinos and several Office of Minority Health projects focused on reducing linguistic and cultural barriers to access to health care. In addition, she cares for patients in a neighborhood health center, works with other investigators to design culturally specific research and teaches medical students, residents and faculty about practicing culturally sensitive medicine.

Niels Agger-Gupta, Ph.D., is a consultant specializing in linguistic access to health care. He helps private and public sector health organizations design and conduct research related to language barriers to health care and advises on the design and implementation of cultural and linguistic competency standards. He holds a doctorate in Human & Organizational Systems from the Fielding Graduate Institute. His dissertation, published in 2001, focused on the emergence of and best practices in the health care interpreting profession in 14 health organizations across the U.S. and Canada. He is the former Executive Director of the California Healthcare Interpreters Association and is a co-author of the "California Standards for Healthcare Interpreters: Ethics, Protocols and Guidance on Roles and Intervention." He also previously worked with the senior management team of the Calgary Regional Health Authority in Alberta, Canada, helping them to develop health care interpreter policy and a process for interpreter implementation and was a consultant with the Alberta Multiculturalism Commission between 1987 and 1998.

Alice Hm Chen, M.D., M.P.H., is a Soros Physician Advocacy Fellow based at the Asian & Pacific Islander American Health Forum, where she focuses on improving access to quality health care for Limited English Proficient health consumers. She also practices internal medicine at Asian Health Services, a community health clinic in Oakland, California. Her primary interest is in issues of health care access, particularly in how poverty, cultural differences and policy intersect to create barriers to care. Dr. Chen's work in this area has included developing culturally appropriate health promotion and disease prevention strategies and examining barriers to hospital access for the Boston Public Health Commission. She was previously with The California Endowment as a Health Policy Scholar in Residence, where she oversaw the foundation's Language Access strategic grant-making program. She has served on the National Advisory Council for Hablamos Juntos and as the lead writer for the Massachusetts Department of Public Health's Best Practice Recommendations for Hospital-based Interpreter Services.

Adam Piotrowski is an undergraduate at Stanford University where he is majoring in Materials Science & Engineering with a Mechanical Engineering focus. He is interested in pursuing a career in medicine and medical device development, incorporating advanced materials to produce cutting-edge products and technologies. He hopes to apply what he learned from this project to a future career in the biomedical sciences.

Eric J. Hardt, M.D., is an Associate Professor of Medicine at Boston University School of Medicine. He has been an active clinician-teacher for almost 30 years including 10 years in the New York City public hospital system and more than 18 years at Boston City Hospital/Boston Medical Center. He currently serves as Clinical Director of Geriatrics at Boston Medical Center and follows a large panel of elderly patients in their homes and at Roxbury Comprehensive Neighborhood Health Center. He has been a leader in the field of language barriers and medical interpretation since 1985 when he began to serve as Medical Consultant to Boston City Hospital Interpreter Services. He has been a founding member of several organizations including the National Council on Interpreting in Health Care and the Massachusetts Medical Interpreter Association. He serves on several advisory boards, has co-authored several publications, and speaks/consults widely on these issues. He has been an active trainer of both providers and medical interpreters.

All authors, with the exception of Adam Piotrowski, serve on the National Council for Interpreting in Health Care's Policy and Research Committee.

Annotations

Annotations

1. **Apisitsaowapa Y, Jongsakul K, Watt G, et al. Thai language skill and HIV counseling among Hilltribe people: A hospital-based study in Chang Rai. Journal of the Thai Medical Association. 1999; 82:808-810.**

This study explored the impact of language barriers on the provision of HIV counseling and testing to Hilltribe individuals seeking testing at a tertiary referral center in Thailand. Twenty-nine of the 70 patients in the study were Hilltribe patients. Interpreters were asked to help with counseling when the Thai language ability of a Hilltribe patient was judged by nurses to be inadequate for HIV counseling. Fourteen of the 24 HIV seronegative Hilltribe patients required interpreted counseling, while none of the five HIV seropositive Hilltribe patients did, suggesting that patients most at risk of HIV are able to communicate in Thai. This difference in interpreter needs between seronegative and seropositive Hilltribe patients was statistically significant. Patients needing an interpreter neither spoke nor understood Thai.

Hilltribe interpreters are needed for HIV counseling and testing in Thailand. [Key Words: Need, Prevention; Hilltribe; Thailand]

2. **Apter AJ, Reisine ST, Affleck G, Barrows E, ZuWallack RL. Adherence with twice daily dosing of inhaled steroids. American Journal of Respiratory and Critical Care Medicine. 1998;157:1810-1817.**

This study measured the relationship between adherence to twice-daily inhaled steroid regimens and sociodemographic characteristics, asthma severity and health locus of control. Thirty-two English-speaking and 19 Spanish-speaking patients with severe to moderate asthma were recruited from an outpatient clinic and followed prospectively for 42 days to measure adherence. No description of how Spanish-speaking patients were identified or how they communicated with their physicians is provided in the article. Adherence was measured by an electronic device that recorded when and how many times each patient's steroid meter-dosed inhaler was used during the study period. Factors found to be significantly associated with poor adherence were <12 years of education, poor patient-clinician communication, household income <$20,000, Spanish as a primary language and minority status. In multivariate analyses, education and poor patient-physician communication were the only factors significantly associated with poor adherence.

This study suggests that language barriers may contribute to poor adherence to asthma treatment recommendations. [Key Words: Adherence, Asthma, Comparison study, Medication, Outcomes (measured); Primary care; Spanish; Connecticut]

3. **Baker DW, Hayes R, Fortier JP. Interpreter use and satisfaction with interpersonal aspects of care for Spanish-speaking patients. Medical Care. 1998;36(10):1461-1470.**

This study was designed to evaluate the effect of language barriers on Spanish-speaking patients' satisfaction with the provider-patient relationship. It included a sample of 457 native Spanish-speaking adult patients who presented to a Los Angeles medical center emergency department for initial evaluation of a nonurgent medical problem. The treating physician or nurse decided whether to call for an interpreter based on their subjective assessment of need; patients were not routinely asked if they would like an interpreter. Participants were asked whether they preferred to be interviewed in English or Spanish. An interview was conducted to obtain demographic information, self-reported health, measures of literacy and anticipated satisfaction with the visit. One week after the appointment, a follow-up interview was

performed, by telephone or in person, to assess patient satisfaction with the previous emergency department visit, including measures of provider friendliness, respectfulness, concern, adequacy of time spent and their ability to make the patient feel comfortable. Participants were also asked whether an interpreter was used, and if not, whether they felt one should have been used. Patients were divided into three groups: group 1 did not use an interpreter and did not feel one was needed, group 2 used a (primarily ad hoc) interpreter (only 12 of percent encounters involved professional interpreters), and group 3 did not use an interpreter but felt one should have been called. Generally, group 1 had the highest satisfaction on all measures of interpersonal aspects of care, followed by group 2, with group 3 having the lowest satisfaction of all three groups. Multivariate analysis showed that using an ad hoc interpreter or reporting that an interpreter was needed but not used were significantly predictive of lower satisfaction. The other significant independent predictor of satisfaction was inadequate literacy.

Language barriers can negatively influence patients' perceptions of provider care. [Key Words: Ad-hoc interpreting, Literacy, Need, Patient satisfaction; Emergency medicine; Spanish; California]

4. Baker DW, Parker RM, Williams M, Coates W, Pitkin K. Use and effectiveness of interpreters in an emergency department. Journal of the American Medical Association. 1996;275:783-788.

The objective of this study was to determine: 1) how often interpreters were used for Spanish-speaking patients in a large urban emergency department; 2) patients' perceptions about the need for interpreters; and 3) the impact of interpreter use on patients' knowledge of their diagnosis and treatment. A total of 467 native Spanish-speaking and 63 English-speaking Latino patients were interviewed in a cross-sectional survey at Harbor-UCLA Medical Center after receiving care in the emergency department. Interpreter use increased as language concordance between examiner and patient decreased. However, even when language concordance was poor, 34 percent of patients did not receive an interpreter. When an interpreter was present, s/he was most commonly a physician or nurse (50 percent of encounters), while professional interpreters were used in only 12 percent of these encounters. Patients were divided into three groups based on whether or not they felt an interpreter was needed and whether or not they received an interpreter. Only 38 percent of patients who thought an interpreter should have been used but did not receive one rated their understanding of their condition as good to excellent, a significantly smaller percentage than patients who received an interpreter (57 percent) and patients who felt an interpreter was unnecessary (67 percent). Similarly, only 58 percent of the interpreter needed but not received group rated their comprehension of treatment as good to excellent, a significantly lower percentage than the other two groups, 82 percent and 86 percent respectively. Even when an interpreter was used, 63 percent reported that they wished the examiner had provided a better explanation, compared with 34 percent of patients who felt an interpreter was unnecessary. Differences in knowledge of diagnosis and treatment were less marked when patients' descriptions were compared to information abstracted from the medical record.

This study suggests that ad hoc interpreting can improve patient understanding over not using any interpreter at all. [Key Words: Ad hoc interpreting, Comprehension, Need; Emergency medicine; Spanish; California]

5. Barrett B, Shaddick K, Schilling R, et al. Hmong/medicine interactions: Improving cross-cultural health care. Family Medicine. 1998;30(3):179-184.

Investigators formally analyzed the text from semi-structured telephone interviews with 23 Hmong patients, 18 providers and six interpreters in Wisconsin to better understand the specific factors that either enable or obstruct health care delivery to this population. They demonstrated that Hmong patients and their U.S.-

trained health care providers have very different health belief systems. Language barriers were one of many factors identified as obstructing care delivery. Most of the interviewees' comments on language suggested that the main barriers were the difficulty of interpreting Hmong exchanges word-for-word and the need for cultural interpretation. Problems with the quality of interpretation were also noted. Common themes in suggestions for improvement in care delivery included improving cross-cultural understanding, avoiding negative attitudes and statements among health care providers, explaining medical information using visual aids, improving interpretation quality and allowing more time for interpreted encounters.

Improving encounters among Hmong patients and their health care providers requires more than word-for-word interpretation. [Key Words: Acculturation, Qualitative study; Hmong; Wisconsin]

6. Bauer HM, Rodriguez MA, Szkupinski Quiroga S, Flores-Ortiz YG. Barriers to health care for abused Latina and Asian immigrant women. Journal of Health Care for the Poor & Underserved. 2000;11(1):33-44.

This qualitative study identified social, political and cultural barriers to help-seeking behavior faced by Latina and Asian immigrant women abused by their partners. Four semi-structured, ethnic-specific focus group interviews using language-matched facilitators were conducted in Spanish, Mandarin, Cantonese and English with 28 abused Latina and Asian immigrant women recruited through urban community-based organizations in San Francisco. Audiotapes were transcribed, translated into English, analyzed and coded for discussion topics by seven independent readers. Participants described significant sociopolitical barriers and feelings of isolation on arrival to the U.S., stemming from their economic and social dependence on abusive husbands, the loss of extended family and lack of awareness of legal rights, women's shelters, social services and other resources for abused women. Language barriers were a major obstacle. Issues included a shortage of appropriate interpreters, long waits for an interpreter and trust and rapport issues between patient and provider which made conversations about abuse difficult. Some Latina women believed racial and ethnic prejudices held by providers marred their interactions, leaving them disconnected, disempowered and reluctant to talk about abuse. Improving provider-based interpreter services and helping providers better understand the hazards of untrained interpreters and pay more attention to nonverbal communication were recommended.

Language barriers are a major source of isolation and an obstacle to seeking health care and help for domestic violence for Latina and Asian immigrant women. [Key Words: Access barrier, Domestic violence, Qualitative study; Chinese, Spanish; California]

7. Bernstein J, Bernstein E, Dave A, et al. Trained medical interpreters in the emergency department: Effects on services, subsequent charges, and follow-up. Journal of Immigrant Health. 2002;4(4):171-176.

This retrospective chart review investigated the impact of interpreter services at Boston Medical Center on the intensity of emergency department services, utilization and charges. The medical records of all 26,573 patients who were seen in the emergency department during a five-month period were reviewed. Five hundred patients met the inclusion criteria, which included presenting symptoms of chest pain, shortness of breath, abdominal pain, headache, or pelvic pain in non-pregnant women. Demographic data (age, sex, ethnicity, etc.), measures of clinical acuity and patient disposition (e.g. discharge or admission to the hospital) were also recorded. Only patients who spoke English, Spanish, Haitian Creole, or Portuguese Creole were included. Language data was obtained from the emergency department registration form on which clerks entered patient self-reported primary language and whether the patient was comfortable speaking English.

Interpreter Service billing records were reviewed to identify which patients received professional medical interpretation. Utilization and charge data were then collected for the 30-day follow-up period after the initial index visit. No other medical facilities were included in the study. Non-interpreted patients (NIP) who did not speak English had the shortest emergency department stays and the fewest tests, intravenous catheters and medications, while English-speaking patients (ESP) had the most services, the longest stays (an average of 3 hours longer) and the most charges. In post-discharge follow-up, interpreted patients received significantly more primary care and specialty clinic referrals than did either NIP or ESP; were more likely to follow-up in clinic than NIP; were less likely than NIP to return to the emergency department; and had the lowest charges from both clinic visits and emergency department returns of all three groups.

Use of a professional interpreter may result in improved quality and lower cost of follow up care for limited English proficient patients seen in the emergency department. [Key Words: Comparison study, Cost, Efficacy, Outcomes (measured), Professional interpreting, Utilization; Emergency medicine; LEP; Massachusetts]

8. Binder L, Nelson B, Smith D, Glass B, Haynes J, Wainscott M. Development, implementation, and evaluation of a medical Spanish curriculum for an emergency medicine residency program. Journal of Emergency Medicine. 1988;6:439-441.

This article describes the impact of a medical Spanish curriculum for 11 non-bilingual residents in an emergency medicine program in Texas. The objective of the course was for the participants to develop a 5,000-10,000 word vocabulary, to become proficient in routine patient interactions, to understand their limitations, and to be able to identify when an interpreter should be called. A Spanish professor from a local community college taught the course, which met three hours a week for 15 weeks. Participant progress was evaluated through post-course interviews, instructor assessment and role-play scenarios where the instructor posed as a patient. Both the participants and instructor believed that the participants improved steadily and significantly throughout the course. The participants reported their syntax, comprehension and communication skills improved, and their reliance on interpreters decreased. None reported instances of clinical errors resulting from incorrect interpretation; however, there was no objective assessment of communication errors. The instructor concurred with the students' perceptions of improvement and felt that most participants could take uncomplicated histories, conduct a physical exam, and give common discharge instructions at the end of the course. The cost of the curriculum was listed as $1,500.

This short-term medical Spanish curriculum improved emergency medicine residents' abilities to communicate in Spanish, although it may have also reduced their likelihood of calling an interpreter when needed. [Key Words: Cost, Educational intervention; Emergency medicine; Spanish; Texas]

9. Bischoff A, Tonnerre C, Loutan L, Stadler H. Language difficulties in an outpatient clinic in Switzerland. Sozial-und Präventivmedizin 1999; 44: 283-287.

This study was undertaken to determine the languages spoken in an outpatient clinic and how health professionals communicated with patients in languages other than French. During a one-month period, 10 junior physicians filled out a self-administered questionnaire after each patient encounter. They were asked to report whether or not the patient was a French-speaker, and if not, to report the patient's nationality and mother tongue, presence of an interpreter, and the language abilities of both patient and physician (according to the physician). There were a total of 1091 consultations during the study period, including 169 (15 percent) with patients who had difficulty communicating in French. The majority of these patients spoke one of four languages: Albanian, Somali, Tamil, and South Slavic. In 17 percent of these non-French

encounters a relative or friend acted as the interpreter; only 24 percent involved qualified interpreters. In the remaining consultations, the patient and physician communicated through another common language, such as English. In a subset of these encounters, the physician employed a double strategy of communicating through a common language and relying on a friend or relative to interpret. In only 14 percent of the consultations without an interpreter did the physician rate both his/her ability and the patient's ability in the common language to be good, yet only 43 percent of physicians thought using an interpreter was a good idea in this situation. Of the 133 consultations where a follow-up appointment was arranged, 53 percent involved simultaneous scheduling of an interpreter.

Swiss outpatient physicians use a variety of means to overcome language barriers to communication with their patients. [Key Words: Ad hoc interpreting, Interpreting practices, Professional interpreting; Primary care; LEP; Switzerland]

10. Bischoff A, Tonnerre C, Eytan A, Bernstein M, Loutan L. Addressing language barriers to health care, a survey of medical services in Switzerland. Sozial-und Präventivmedizin. 1999; 44: 248-256.

This survey study was undertaken to provide a national overview of how Swiss medical services address the problem of language barriers and to assess the consequent need for and use of interpreters. The head doctor of each internal medicine and psychiatric service in Switzerland received the survey. The overall response rate was 86.6 percent. More medical services reported using an interpreter of any kind "often" (71 percent) than did psychiatric services (51 percent). Both services reported using qualified interpreters "often" only 14 percent of the time. The remainder of interpreters used included family, friends, medical and non-medical staff employees, and volunteers. Internal medicine services reported significantly more use of relatives (85 percent vs. 67 percent) and hospital employees (50 percent vs. 25 percent) compared to psychiatric services. Psychiatric services reported significantly greater use of qualified interpreters (36 percent vs. 4 percent). Only 11 percent of both services had a budget for interpreters. A third of all services stated that they relied on networks of employees or volunteers. Forty-eight percent expressed the need to have access to an interpreter network but only 8 percent had plans to set one up. Comparing the two types of services, proportionally more psychiatric services had budgets for and access to interpreter services and far more of them expressed the need to use such services in the future.

This nationally representative survey indicates that access to adequate interpreter services in Switzerland is highly variable and often inadequate. [Key Words: Ad hoc interpreting, Interpreting practices, Need, Professional interpreting; Primary care, Mental health; LEP; Switzerland]

11. Carnie JC, Perks D. The pattern of postoperative analgesic administration in non-English-speaking Asian women following caesarian section. Annals of the Royal College of Surgeons of England. 1984;66:365-366.

This was a small study conducted in a hospital in England to understand if analgesia administered to women after a Cesarean section differed between non-English-speaking Asian women (n=20) and English-speaking Caucasians (n=29). The nursing staff who administered the narcotics were unaware of the objective of the study. Without adjusting for any other variables that might explain differences between the two groups, the investigators found that analgesia was initiated significantly later in the Asian group (almost 2 hours later) and used for a significantly shorter total period of time (16.5 hrs vs. 23 hrs).

This study suggests that language barriers may contribute to differences in analgesia administration. [Key Words: Analgesia, Comparison study, Utilization; Obstetrics and gynecology; Asian languages; England]

12. Carrasquillo O, Orav EJ, Brennan TA, Burstin HR. Impact of language barriers on patient satisfaction in an emergency department. Journal of General Internal Medicine. 1999;14:82-87.

This study was designed to examine patient satisfaction and willingness to return to the same institution for future care among non-English speakers. It involved a cross-sectional survey of 2,333 patients who presented to one of five urban teaching hospital emergency departments in the Boston area. Adult patients who presented with a chief complaint of abdominal pain, chest pain, asthma, hand laceration, head trauma or vaginal bleeding were eligible. An initial questionnaire was administered in Spanish or English to obtain information on socioeconomic and health care factors. A follow-up telephone interview in English or Spanish was performed 10 days after the initial emergency department visit to assess satisfaction and problems with care. Patients were also asked whether English was their first language. Medical records were reviewed to verify the chief complaint and to determine the urgency on presentation to the emergency department. Fifteen percent of the patients reported that English was not their first language: 50 percent were Latino, 25 percent white (Russian, Eastern European), 11 percent black (Haitian Creole) and 15 percent Asian or "other." Multivariate analysis revealed that patients whose first language was not English were significantly less likely to be satisfied across multiple domains, including overall care, courtesy and respect, discharge instructions, willingness to return for future care, communication and diagnostic testing.

Language barriers can result in worse patient reports of satisfaction and quality of care measures, and may increase the likelihood that a patient would not return to the same institution for future care. [Key Words: Patient satisfaction; Emergency medicine; LEP; Massachusetts]

13. Chak S, Nixon J, Dugdale A. Primary health care for Indo-Chinese children in Australia. Australian Paediatric Journal. 1984;20:57-58.

This brief article presents the results from an interview study of parents of 61 Indo-Chinese immigrant children presenting to the emergency department of the Australian Children's Hospital. Interviews were conducted in English, Chinese and Vietnamese to explore reasons for visiting the hospital, experience of language barriers, use of herbal medicines and dental care. Language barriers were reported as a major difficulty. The majority (70.5 percent) could not communicate adequately during medical encounters in English and only 65 percent reported having an interpreter when needed. Some respondents reported they had avoided seeking care due to language barriers. No other relationship between language and health care utilization was explored.

Language barriers and insufficiency of linguistic access services are significant barriers to care in this Australian hospital. [Key Words: Access barrier, Need, Qualitative study; Emergency medicine, Pediatrics; Chinese, Vietnamese; Australia]

14. Chalabian J, Dunnington G. Impact of language barrier on quality of patient care, resident stress, and teaching. Teaching & Learning in Medicine. 1997;9(2):84-90.

This study at the Los Angeles County & University of Southern California Medical Center evaluated the effect of language barriers on quality of patient care, surgical residents' ability to learn and teach, length of workday and daily stress. A standardized questionnaire received a 100 percent response rate from the 59 surgical residents (Years 1-5) rotating through the general surgical service. Significance tests were done with chi-square, t-tests and analysis of variance. Only 2 percent of the residents rated themselves as fluent in Spanish, the predominant language at the medical center, while 42 percent rated their Spanish ability as

adequate for a patient history and physical examination. Residents estimated that 77 percent of their patients did not speak English adequately to communicate for patient care purposes. No trained interpreters were on site, although bilingual staff members who had passed a general language proficiency test received monthly bonus pay for serving as interpreters. Seventy-two percent of residents reported requesting interpreters more than a quarter of the time, but 46 percent of them would, "seldom or on rare occasions," and 54 percent would, "more frequently," proceed without an interpreter to save time. Ninety-seven percent of residents believed that quality of patient care was negatively impacted by language barriers, and 44 percent rated this negative impact as "significant" or "very significant." Eighty percent of residents described a "significant" or "very significant" negative effect of language barriers on the amount of time spent discussing a patient's illness, either with the patient or with the patient's family. The language barrier was perceived by residents to lengthen their workday an average of 52 minutes. Almost half the residents (47 percent) attributed a "significant" or "very significant" amount of their daily stress to language barriers. While only 15 percent of residents reported language barriers as having a "significant" or "very significant" impact on their bedside teaching encounters, 67 percent expressed concern about their inability to role model good patient-physician interaction skills in their teaching of more junior residents, and 76 percent identified a negative effect on their own acquisition of good patient-physician interaction skills. Residents reported compensating by shifting the focus to issues not requiring patient participation.

Residents in this large, urban medical center without available interpreter services perceive language barriers to be a major source of work stress and a barrier to developing good patient-physician communication skills. [Key Words: Interpreting practices, Need, Duration; Surgery; Spanish; California]

15. Chan A, Woodruff RK. Comparison of palliative care needs of English- and non-English-speaking patients. Journal of Palliative Care. 1999;15(1):26-30.

This study examined whether patients who are not fluent in English receive less than optimal palliative care. The sample group was comprised of 130 consecutive patients (106 English-speaking (E); and 24 non-English-speaking (NES)) with advanced cancer admitted to three Melbourne, Australia hospitals. Patients were classified as E if they reported that English was their first language. Patients who did not consider English their first language and who were unable to communicate in English without an interpreter were classified as NES. Professional interpreters were used for all interviews with NES patients. Patients were interviewed at each hospital admission, at discharge, and by monthly phone calls; they were followed for six months or until the time of death. Assessments included surveys measuring comprehension of prognosis, mood disturbances, and functional impairment caused by pain. Results revealed that NES patients were less likely to live alone (4 percent NES vs. 18 percent E) and more likely to live with another person (70 percent NES vs. 39 percent E). At the request of family members who felt that the patient would give up hope and die sooner if s/he knew the diagnosis, 46 percent of the NES patients were not told their diagnosis, compared to only one E patient. The NES patients exhibited significantly worsening symptom control than E patients. Although 78 percent of E patients and 79 percent of NES patients died during the six month period, no NES patients died at home (compared with 18 percent of E patients), despite having better social supports.

The study indicates non-English-speaking patients in Australia may receive less optimal palliative care than fluent English-speaking patients. [Key Words: Comparison study, Outcomes (measured), Outcomes (patient reported); Palliative care; LEP; Australia]

16. Cooke MW, Wilson S, Cox P, Roalfe A. Public understanding of medical terminology: Non-English speakers may not receive optimal care. Journal of Accident and Emergency Medicine. 2000;17:119-121.

In the medical setting, unconsciousness is often an indicator of severity of illness. The objective of this research was to determine the general public's awareness and comprehension of the word "unconscious." Seven hundred adult patients attending an inner city accident and emergency department were asked, in English, one of seven questions regarding the concept of unconsciousness. Respondents with English as a first language were significantly more likely to give a correct answer than respondents who were non-native English speakers (77.8 percent vs. 62.7 percent). When the inter-relationships of all variables were examined via logistic regression analysis, the independent predictor of supplying a correct answer was having English as a first language.

Non-native English speakers, even when speaking English, may have difficulty understanding frequently used medical terms. [Key Words: Medical language; Emergency medicine; LEP; England]

17. Crane JA. Patient comprehension of doctor-patient communication on discharge from the emergency department. Journal of Emergency Medicine. 1997;15(1):1-7.

This study evaluated the effectiveness of doctor-patient communication at a hospital in Bakersfield, California. A survey was administered by four bilingual research assistants to a convenience sample of 314 patients discharged from the emergency department between 8 a.m. and midnight during a two-week period. Patients who self-identified as primarily English-speaking (217) or primarily Spanish-speaking (97) were eligible for inclusion in the study. The medical center did not have any staff interpreters available; however, approximately half of the discharge clerks were bilingual in Spanish. The survey included questions on comprehension of diagnosis, treatment instructions (including prescribed medications), and plans for follow-up care, as well as patients' perceptions of communication and adequacy of treatment. The two groups were compared using z-tests, t-tests and chi-squared tests of significance. In nearly every measure of comprehension, Spanish-speaking patients were significantly less likely than English-speaking patients to give correct responses (average correct responses 46 percent Spanish vs. 65 percent English). Significantly fewer Spanish-speaking patients found written instructions to be helpful (61.9 percent vs. 86.2 percent of English-speaking patients), and significantly fewer felt information was explained to them adequately when compared to English-speaking patients (81.4 percent vs. 96.8 percent).

Emergency department communication, as measured by patient understanding of diagnosis and treatment, appears to be compromised by language barriers. [Key Words: Ad-hoc interpreting, Comparison study, Comprehension, Patient satisfaction; Emergency medicine; Spanish; California]

18. D'Avanzo CE. Barriers to health care for Vietnamese refugees. Journal of Professional Nursing. 1992;8(4):245-253.

This study explores how length of time in the United States and English proficiency affect the utilization of health care services by three waves of Vietnamese refugee immigrants (pre-1981, 1981-1985, and post-1985). The hypothesis was that newly arrived refugees, measured by a later arrival date, would have more difficulties with communication and accessing care. A telephone survey was conducted with a random sample of 75 Vietnamese living in Connecticut. Only 12 percent of respondents said they could satisfactorily communicate with health care providers in English. The rest brought adult (23 percent) or child (16 percent) interpreters, used nonverbal gestures (25 percent), or relied on dictionaries (24 percent).

Multivariate analysis found that later arrival was significantly associated with not having an interpreter available, not feeling understood by providers and not being able to understand written or verbal instructions. The most significant concern of refugees was not having an interpreter available and this concern increased their willingness to change health care sites to gain access to an interpreter.

Language difficulties are a significant barrier to care for Vietnamese refugees. [Key Words: Comprehension, Need, Patient satisfaction, Refugees; Vietnamese; Connecticut]

19. David RA, Rhee M. The impact of language as a barrier to effective health care in an underserved urban Hispanic community. The Mount Sinai Journal of Medicine. 1998;65(5-6):393-397.

Researchers created a survey, administered in English and Spanish, designed to measure the effect of language barriers on medication use, patient satisfaction and preventive testing in an urban adult primary care setting in New York. There were no trained interpreters on site, but bilingual medical office assistants were available to serve as ad hoc interpreters. Cases (n=68) were defined as patients who had used an interpreter in the past or who self-reported "poor" verbal English skills; controls (n=193) were defined as patients who had not used interpreters in the past and self-reported "fair," "good," or "excellent" verbal English skills. Survey questions regarding medication instruction and adherence, patient satisfaction and use of preventive testing allowed responses of "yes" or "no." Responses were analyzed with chi-square tests. Both cases and controls felt that understanding medication side effects corresponded to medication compliance. Cases were significantly more likely than controls to report that side effects of medication were not explained (47 percent vs. 16 percent), and controls were significantly more likely than cases to report satisfaction with medical care (93 percent vs. 84 percent). Subgroup analysis of Hispanics (not defined) found that cases were significantly less likely than controls to feel that their doctor understood how they felt (72 percent vs. 88 percent). Overall, cases were significantly more likely than controls to report having received a mammogram within the last two years.

Language barriers may result in inadequate explanation of medication side effects and decreased patient satisfaction with care, but may not negatively affect the likelihood of receiving breast cancer screening. [Key Words: Ad hoc interpreting, Comparison study, Medication, Patient satisfaction, Prevention; Primary care; Spanish; New York]

20. Devore JS, Koskela K. The language barrier in obstetric anesthesia. American Journal of Obstetrics and Gynecology. 1980;137(6):745-746.

This was a retrospective chart analysis of 1,836 obstetric deliveries at the University of California, Irvine. Charts were reviewed for the frequency of delivery without anesthesia, epidural anesthesia, aseptic (nonsterile) delivery and low Apgar scores for English and non-English speakers. The article does not describe the criteria or process for determining language ability. The incidence rates for the two groups were compared using chi-square analysis. Variables such as age, comorbidities, personal preferences and extent of prenatal care were not included in the analysis. Half the patients (49.5 percent) were non-English speakers. Thirty percent of non-English speakers received no anesthesia, compared with 18.1 percent of English speakers. Non-English speakers were significantly less likely to receive epidural anesthesia (12.3 percent vs. 18.1 percent of English speakers), and were almost three times more likely to have an aseptic delivery (6 percent compared with 2.1 percent English speakers). Apgar score differences were not significant. The authors suggest that language may have an impact due to difficulties in communicating with patients and obtaining informed consent.

Language barriers may contribute to poor process outcomes in obstetrical care. [Key Words: Analgesia, Comparison study, Outcomes (measured), Utilization; Obstetrics and gynecology; Spanish; California]

21. Diel AK, Westwick TJ, Badgett RG, Sugarek NJ, Todd KH. Clinical and sociocultural determinants of gallstone treatment. The American Journal of the Medical Sciences. 1993;305(6):383-386.

This was a study of predictors for cholecystectomy after an episode of cholecystitis among 121 patients evaluated at a public health care system in San Antonio, Texas. Patients whose initial evaluation resulted in the ordering of an imaging study of the gallbladder were asked to respond to a 10-minute oral questionnaire in English or Spanish (depending on patient preference) that addressed abdominal symptoms, medical history, and sociodemographic data. Six months after the initial interview, a chart review was conducted to determine the outcome of the diagnostic studies and whether those found to have gallstones had undergone surgery. Among the Mexican-American subgroup (n=103), univariate analysis showed that those who asked to be interviewed in Spanish were significantly less likely to undergo cholecystectomy than those interviewed in English (43 percent vs. 67 percent). However, with logistic regression the only significant determinant of surgery was prolonged abdominal pain.

Language barriers may contribute to disparities in treatment of patients with gallstones. [Key Words: Outcomes (measured), Utilization; Surgery; Spanish; Texas]

22. Dodd W. Do interpreters affect consultations? Family Practice. 1983;1:42-47.

The goal of this study was to explore whether or not there were differences in rates of diagnoses of 'mental disease' and 'symptoms and ill-defined conditions' between ten non-Arabic-speaking doctors communicating with patients through an interpreter and ten Arabic-speaking doctors in Saudi Arabia. Arabic interpreters in the study were high school graduates employed as staff interpreters and Arabic-speaking female nurses. The investigators reviewed differences in rates of diagnoses abstracted from a computerized database. They found no differences in rates of diagnoses of mental disorders and symptoms and ill-defined conditions between the Arabic- and non-Arabic-speaking doctors, nor did they find significant differences in diagnoses rates between the 20 doctors in the study and the general population of Saudi doctors.

Arabic-speaking doctors and non-Arabic-speaking doctors with access to an interpreter had similar rates of diagnoses of mental illness or symptoms of ill-defined conditions. [Key Words: Efficacy, Outcomes (measured); Primary care, Mental health; Arabic; Saudi Arabia]

23. Dolman J, Shackleton G, Ziaian T, Gay J, Yeboah DA. A survey of health agencies' responses to non-English speaking women's health needs in South Australia. Australian and New Zealand Journal of Public Health. 1996;20(2):155-160.

This study surveyed 31 health units in metropolitan South Australia to seek information about services available to women of non-English speaking backgrounds (NESB), factors affecting use of these services and strategies developed by clinics to overcome barriers to care. English language difficulties and lack of culturally appropriate services were the most prominent barriers found. Of the health agencies surveyed, 81 percent were aware of factors affecting the use of services of NESB women, but only 20 percent provided illness-prevention services and just 14 percent of the units undertook research on the health of NESB women. While four out of five units implemented strategies to improve information to NESB

women, only one in five agencies employed bilingual and bicultural staff. The survey did not collect data on what proportion of clinic visits involved NESB women. The language problem was found to be a systemic issue; difficulties extended to agencies which did not recognize the necessity of adequate interpreter services, leading to complications for NESB women in obtaining access to services.

Non-English-speaking women in Australia face systemic language barriers to care. [Key Words: Access barrier, Prevention; Primary care; LEP; Australia]

24. Donaldson LJ. Health and social status of elderly Asians: A community survey. British Medical Journal. 1986;293:1079-1082.

This study provides descriptive data on the health status and needs of elderly Asians (aged 65 and older) in the city of Leicester, England. Invitations to participate in the survey were sent to individuals with Asian-appearing names; 726 persons agreed to participate. Fieldworkers speaking Gujarati and Punjabi conducted interviews asking about demographic details, family life, social contacts, aspects of lifestyle, language, communication and knowledge and use of health and social services. Thirty-seven percent of men and only 2 percent of women interviewed could speak English, but half of the 145 people who reported they could speak English said they would need an interpreter's assistance in certain situations. For example, over half of these respondents (59 percent) indicated that they could explain a problem to a doctor either with difficulty or only with an interpreter.

Elderly Asians in England have high levels of limited-English proficiency. [Key Words: Need, Qualitative study; Gerontology; Gujarati, Punjabi; England]

25. Donaldson LJ. Health and social status of elderly Asians: A community survey. British Medical Journal. 1986;293:1079-1082.

This study provides descriptive data on the health status and needs of elderly Asians (aged 65 and older) in the city of Leicester, England. Invitations to participate in the survey were sent to individuals with Asian-appearing names; 726 persons agreed to participate. Fieldworkers speaking Gujarati and Punjabi conducted interviews asking about demographic details, family life, social contacts, aspects of lifestyle, language, communication and knowledge and use of health and social services. Thirty-seven percent of men and only 2 percent of women interviewed could speak English, but half of the 145 people who reported they could speak English said they would need an interpreter's assistance in certain situations. For example, over half of these respondents (59 percent) indicated that they could explain a problem to a doctor either with difficulty or only with an interpreter.

Elderly Asians in England have high levels of limited-English proficiency. [Key Words: Need, Qualitative study; Gerontology; Gujarati, Punjabi; England]

26. Drennan G. Counting the costs of language services in psychiatry. South African Medical Journal. 1996;86(4):343-345.

The goal of this study was to document interpreter utilization at a major South African mental hospital over a two-month period. The investigators examined the need for interpreters, type of interpreters used, and cost of those services. Over 20 percent of patients (n=148) admitted to the hospital required interpreter services. They were mostly Xhosa-speaking and interpreters were available immediately 69 percent of the time. In 21 percent of cases there was a delay of a day and in 9 percent of cases the delay was more than one day. Interpreters were primarily nurses (67 percent) and cleaning staff (10 percent), but also included

interpreters, security personnel, family members, strangers and even psychotic patients. A total of 93.8 hours of interpreting was documented, with interpreters providing the longest encounters (over 30 minutes) compared to nurses (18 minutes). The authors calculated the cost of lost staff productivity from fulfilling interpreting needs and found the cost to be twice the amount needed to employ staff interpreters.

A lack of medical interpreters can lead to use of inappropriate interpreters, delays in delivery of care and significant costs. [Key words: Access barrier, Ad hoc interpreting, Cost, Interpreting practices, Need; Mental health; Xhosa; South Africa]

27. Drennan D, Swartz L. The paradoxical use of interpreting in psychiatry. Social Science and Medicine. 2002;54(12):1853-1866.

The goal of this study was to understand the impact language barriers have on patient-provider interactions in a South African psychiatric hospital. It was an ethnographic study analyzing data from chart reviews, semi-structured interviews with staff and Xhosa-speaking interpreters, and the first author's observations of psychiatric ward rounds and multi-disciplinary team meetings. Several key themes emerged. First, the impact of language on psychiatric assessments was often obscured by the fact patients' primary language was not noted in the chart or presentation of their case. Second, in some cases language barriers influenced the physician's diagnosis by making patients appear "symptomatic." Third, inadequate communication led to inadequate evaluation and diagnosis. Fourth, clinicians' decision whether to use an interpreter depended on clinical contingencies and situational factors; patients' "need" for an interpreter was an "institutional construct" defined by the practice of the hospital rather than by patients' true need.

Interpreting is critical to the practice of psychiatry, but is not always recognized by clinicians and psychiatric institutions. [Key Words: Mental health, Qualitative study; Xhosa; South Africa]

28. Elderkin-Thompson V, Silver RC, Waitzkin H. When nurses double as interpreters: A study of Spanish-speaking patients in a U.S. primary care setting. Social Science and Medicine. 2001;52:1343-1358.

This qualitative study, based at a university-affiliated walk-in primary care clinic in Irvine, California, was designed to document communication errors when using untrained bilingual nurses as interpreters. Twenty-one medical encounters with adult Spanish-speaking patients seeking first-time episodic care who required a nurse-interpreter were videotaped, transcribed, translated and analyzed for types of interpreting errors and processes that promoted the occurrence of errors. Each encounter was classified according to the number and types of errors. Examples of successful and unsuccessful encounters are presented. Successful interpreting often involved physicians who spoke slowly and distinctly, in short, simple sentences, and who used repetition and confirmation with the interpreter to confirm the patient's history. Developments of misunderstandings during interpreting were due to either the physician's inability to accommodate new information – for example, continuing with the exam without incorporating new, contradictory information – or the nurse-interpreters' attempt to solve differing perceptions of the problem by providing false information that correlated with what the physician expected to hear. Omissions, condensations, additions and other inaccuracies also led to discrepancies, as did instances when nurses would provide an answer without asking the patient, believing they had already obtained that piece of information.

The use of untrained, ad hoc interpreters can lead to distortions in the information obtained from the clinical interview. [Key Words: Ad hoc interpreting, Communication analysis; Primary care; Spanish; California]

29. Enguidanos ER, Rosen P. Language as a factor affecting follow-up compliance from the emergency department. The Journal of Emergency Medicine. 1997;15(1):9-12.

This was a study of determinants of adherence with follow-up appointments after discharge from an academic medical center emergency department in San Diego, California. A convenience sample of English- and Spanish-speaking patients who presented to the emergency department were enrolled if they were not too ill to respond, had a telephone number and were discharged from the emergency department with a follow-up referral. They were assigned as Spanish- or English-speaking based on their self-reported primary language spoken at home. Information collected in the emergency department included whether the respondent had a primary doctor, level of education, insurance status, average family income and adequacy of communication. Twenty-four participants in each group were contacted by phone eight weeks after their initial visit to assess adherence with follow-up appointments. Fisher's exact test was used to compare follow-up rates between the two groups, and analyses of variance were used to determine the effect of socioeconomic variables on follow-up rates. The only variable that was significantly related to better follow-up was having a primary physician prior to the emergency department visit. Analysis within the Spanish-speaking group showed that having a primary physician and insurance were both significantly correlated with follow-up adherence. Of note, 23 of the Spanish-speaking participants had access to an emergency department staff interpreter, while one received care from a Spanish-speaking physician.

Primary language spoken at home may not influence adherence with follow-up appointments, particularly if medical communication is facilitated by bilingual providers or staff interpreters. [Key Words: Adherence, Comparison study, Professional interpreting; Emergency medicine; Spanish; California]

30. Erzinger S. Communication between Spanish-speaking patients and their doctors in medical encounters. Culture, Medicine, and Psychiatry. 1991;15:91-110.

This ethnographic study examines the effects of language and culture on communication between Spanish-speaking Latino patients and their doctors. Twenty-six clinical encounters, conducted in Spanish by family practice residents with varying Spanish language abilities, were audiotaped and analyzed. The investigators conclude from their analysis that the overall success of the medical encounter is determined by how doctor and patient assist each other in their communication tasks. They identified two types of communication: supportive communication and conflictual communication. Supportive communication included interactions where the doctor built upon clues offered by the patient, demonstrated respect, listened attentively without much interruption, and encouraged elaboration. This was contrasted with a conflictual style that detracted from the patient's experience, when the doctor interrupted frequently, insisted on an opinion or diagnosis and generally did not acknowledge or demonstrate the culturally significant "respeto" (respect for the patient). The authors give an example of an encounter in which part of the "conflict" in communication stemmed from the doctor's need to ask the patient how to say some words in Spanish because s/he was not fluent.

The success of Spanish-language encounters may depend not only on the provider's language ability, but also on how the physician and patient help each other communicate. [Key Words: Communication analysis; Primary care; Spanish; Florida]

31. Estrada AL, Trevino FM, Ray LA. Health care utilization barriers among Mexican Americans: Evidence from HHANES 1982-1984. American Journal of Public Health. 1990;80(S):27-31.

The investigators analyzed data from the 1982-1984 Hispanic Health and Nutrition Examination Survey to document the types of barriers to health care reported by Mexican Americans, the importance of different barriers to care and how those barriers varied among different groups of Mexican Americans. More than 35 percent of the 3,935 Mexican Americans surveyed did not speak English and 31 percent reported encountering one or more barriers to obtaining health care. Language and culture barriers, while mentioned, were not the most frequently cited barriers. In multivariate analyses, significant predictors of barriers to care varied by age, sex and whether or not the respondent had seen a physician in the last year. Language was not a significant barrier in this analysis. As the authors discuss, this does not negate the existence of language barriers, but suggests that other barriers such as cost, availability and accessibility constraints may be more important.

Language may not always be the primary barrier to access to health care. [Key Words: Access barrier; Spanish; United States]

32. Eytan A, Bischoff A, Loutan L. Use of interpreters in Switzerland's psychiatric services. Journal of Nervous and Mental Disease. 1999;187:190-192.

This study was designed to assess the need for and availability of language assistance services in psychiatric settings in Switzerland. A questionnaire was sent to all 51 psychiatric hospitals and public psychiatric services in the country, inquiring about the importance of and methods for dealing with language barriers; the response rate was 82 percent. Some institutions returned as many as seven separate surveys for different psychiatric services within the same institution, resulting in a total of 78 surveys available for analysis. Thirty percent of the respondents reported that over 5 percent of their patients did not speak, or spoke poorly, the local language. Frequently encountered languages included Italian, Spanish, Portuguese, Albanian, Serbo-Croatian, Turkish and Tamil. Providers reportedly never used interpreters in 6.5 percent of surveys, rarely in 40 percent, and often in 50 percent (3.5 percent did not respond). There were several types of interpreters used: 85 percent of respondents reported using health care staff, 85 percent friends or relatives, 72 percent nonmedical staff, 49 percent volunteers, and 59 percent trained and paid interpreters. Only 23 percent of respondents had a budget allocation for interpreter services. Forty percent of respondents expressed a desire for provider and interpreter training.

Providers in Switzerland encounter a diversity of languages and use a variety of methods to address language barriers in psychiatric settings. [Key Words: Interpreting practices, Need; Mental health; LEP; Switzerland]

33. Facione NC. Breast cancer screening in relation to access to health services. Oncology Nursing Forum. 1999;26(4):689-696.

This study examined the relationship between perceived access to health services and mammography screening and breast self-examination. A convenience sample of 838 women of varying racial and ethnic backgrounds (Black/African American, Latina/Hispanic, Caucasian/Anglo American) was recruited over an eight-month period through a community outreach campaign in Northern California. The sample was further stratified by age, annual income, and educational level. Participants were interviewed in English or Spanish by one of four interviewers, two of whom were native Spanish speakers, using a survey format that assessed perceived access to prevention and early detection services, screening behaviors, acculturation

levels, and perceived prejudices in health delivery, among other social and behavioral variables. Several standard questionnaires were employed in both English and Spanish to compare multiple demographic factors and perceived access to care with reported use of breast cancer early detection procedures. In a hierarchical regression model, only annual family income contributed a unique explanation of variance in perceived access to health services. Spanish as the spoken language, together with health care habits, personal history of prejudicial treatment, and measures of financial capability accounted for 57 percent of the variance in report of lower access to health services. In turn, lower perceived access to health services was significantly predictive of lower reported breast cancer screening.

Language barriers, among many factors, contribute to reports of lower breast cancer screening among women. [Key Words: Access barrier, Acculturation, Outcomes (patient reported), Prevention, Utilization; Spanish; California]

34. Farnill D, Todisco J, Hayes SC, Bartlett D. Videotaped interviewing of non-English speakers: Training for medical students with volunteer clients. Medical Education. 1997;31:87-93.

This paper describes the evaluation of an Australian medical school's effort to improve preclinical medical students' skills in interviewing patients from non-English-speaking backgrounds. Sixty medical students conducted pre- and post-training interviews, 5 months apart, with one of 89 volunteers from 32 different language backgrounds. All volunteers could speak English, but with varying levels of proficiency. Each interview was evaluated by the volunteer and the student; an experienced psychologist also rated videotapes of the interviews. Using multivariate statistical analyses, the investigators found that volunteers were more confident in students whom they could understand and who they felt understood the volunteers' feelings. They found that students rated themselves as significantly more competent as interviewers after the training. The psychologist also rated the students as significantly more competent during the second interview, but did not see significant improvement in facilitating emotional expression or expressing simple language.

This educational intervention demonstrated that improvements can be made in some, but not all, areas of interviewing skills through multicultural exposure and self-review. [Key Words: Educational intervention, Patient satisfaction; LEP; Australia]

35. Feinberg E, Swartz K, Zaslavsky AM, Gardner J, Walker DK. Language proficiency and the enrollment of Medicaid-eligible children in publicly funded health insurance programs. Maternal and Child Health Journal. 2002;6(1):5-18.

The purpose of this study was to examine the effect of parental language proficiency on the process of and barriers to child enrollment in a public insurance program. A telephone survey was conducted with 1,055 parents of Medicaid-eligible children who had a working telephone (69 percent response rate). The 10-minute survey was administered in English, Spanish, Portuguese and Haitian Creole. Families who reported speaking a language other than English in the home were categorized as Limited English Proficient (LEP); those who reported speaking English or English and another language were categorized as English proficient (EP). Demographic information, including marital status, employment status and annual income, were collected as potential confounding variables. Thirty-two percent of respondent families were LEP. LEP families were significantly less likely than EP families to be familiar with the Medicaid program, and to report barriers related to "know-how" – knowing about Medicaid, knowing if their child was eligible and knowing how to sign up. In multivariate analysis, LEP families were three times more likely to report receiving enrollment assistance, particularly from medical providers and family and

friends, than EP families, who were more likely to use the toll-free information line.

Limited English proficient families may be less knowledgeable about and require more personal assistance with applying for public insurance programs for their children. [Key Words: Access barrier, Comparison study, Insurance; LEP; Massachusetts]

36. Fiscella K, Franks P, Doescher MP, Saver BG. Disparities in health care by race, ethnicity, and language among the insured. Medical Care. 2002;40:52-59.

The objective of this study was to examine the effect of access barriers, including English fluency, on racial and ethnic disparities in health care. The data came from 31,003 respondents who completed the Community Tracking Study Household Survey in 1996 and 1997. Ethnicity was self-reported as Hispanic or non-Hispanic and language was classified according to the language used during the interview. After adjusting for demographic characteristics, need factors and enabling factors, Spanish-speaking Hispanic patients were significantly less likely than non-Hispanic white patients to have had a physician visit, mental health visit, mammogram or influenza vaccination. There were no significant differences between English-speaking Hispanic respondents and non-Hispanic white respondents, suggesting that language, and not Hispanic ethnicity, accounted for Hispanic disparities in use of health services.

This study suggests that language may be the most important determinant of health disparities between Hispanic and white, non-Hispanic populations. [Key Words: Access barrier, Prevention, Utilization; Primary Care, Mental health; Spanish; United States]

37. Fox SA, Stein JA. The effect of physician-patient communication on mammography utilization by different ethnic groups. Medical Care. 1991;29:1065-82.

This goal of this study was to examine differences in predictors and use of screening mammography among three different racial/ethnic groups using a 35-minute, bilingual, random digit dial telephone survey in Los Angeles County. A total of 1,057 women over age 35 responded (82 percent response rate), with the following racial/ethnic breakdown: 55 percent white, 22 percent black, 14 percent Hispanic, and 9 percent "other;" only the white, black or Hispanic women's responses were used for this analysis. Of the Hispanic subgroup, 53 percent preferred to be interviewed in Spanish. The survey collected information on demographics, insurance status, relevant health data, barriers to mammography and self-reported utilization of mammography. In particular, the survey focused on the effect of physician-patient communication in the area of breast cancer screening on mammography use. Hispanic women over the age of 50 were significantly more likely than black or white women to have never had a mammogram (55.3 percent vs. 40.3 percent and 37.7 percent respectively). Logistic regression analyses were used for each of the three groups to determine significant predictors of mammography use. The most powerful predictor – and the only common predictor – across all three groups was answering yes to the question "Did your doctor tell you anything about mammography?" Among Hispanics, there was a strong and significant correlation between preferred language of interview and whether their physician had discussed mammography.

Patient Spanish language preference appears to be strongly correlated with physicians' being less likely to discuss mammography, which in turn results in lower likelihood of receiving mammography. [Key Words: Prevention, Utilization; Spanish; California]

38. Flores G, Abreu M, Olivar MA, Kastner B. Access barriers to health care for Latino children. Archives of Pediatric Adolescent Medicine. 1998;152:1119-1125.

This study identified important access barriers to health care for Latino children through a survey administered to the parents of all 203 Latino children presenting to the Pediatric Latino Clinic at Boston Medical Center during a two-week period. Bilingual research assistants conducted an oral survey with parents, in their preferred language, about their experiences with the American health care system prior to their first visit to the Pediatric Latino Clinic. Ninety percent of parents chose Spanish. Almost three-quarters of respondents spoke English "not very well" or "not at all." Multivariate analysis found that language problems were the single greatest barrier to accessing health care services, described by more than one-quarter of the parents. Fifteen percent of parents reported specific difficulties with doctors and nurses who did not speak Spanish and 11 percent cited a lack of interpreters. Adverse consequences from the language barrier, according to parents, included poor medical care (8 percent), misdiagnoses (6 percent), and inappropriate prescriptions (5 percent). For routine medical visits, 56 percent of parents took their children to hospital clinics, 21 percent to neighborhood health centers, and 21 percent to the emergency department, but only 3 percent brought their children to a private physician's office. Additional barriers reported included long waits, lack of medical insurance, difficulty paying and lack of transportation. The study may underestimate the severity and prevalence of these access barriers, because the interviews involved parents who had already presented to the clinic.

Language is a key barrier to obtaining health care among Latinos. [Key Words: Access barrier, Language concordance, Medications, Need, Outcomes (patient reported); Pediatrics; Spanish; Massachusetts]

39. Flores G, Barton Laws M, Mayo SJ, et al. Errors in medical interpretation and their potential clinical consequences in pediatric encounters. Pediatrics. 2003;111(1):6-14.

The objectives of this study were to determine the frequency, types and potential clinical consequences of errors in medical interpreting. The investigators audiotaped and transcribed 13 pediatric encounters in a hospital outpatient clinic for which a Spanish interpreter was needed. The transcripts were coded for interpreting errors and the potential clinical consequences of those errors. Hospital staff interpreters were present for six encounters, while the remainder were interpreted by nurses (n=3), social workers (n=3) and an 11-year-old child (n=1). Hospital staff interpreters' proficiency in English and Spanish were reportedly assessed at some level; it is unclear whether they had any training. There were a total of 396 errors recorded. They included omission of a word/phrase uttered by parent, physician or child (52 percent), using an incorrect word/phrase (16 percent), inappropriately substituting words/phrases (13 percent), providing personal views (10 percent) and inappropriate addition by the interpreter (8 percent). Further analysis of errors in which the interpreter used an incorrect word or phrase found that most of these instances (75 percent) involved physicians trying to communicate while the interpreter was out of the room or on the phone; hospital interpreters who did not know the correct Spanish words for medical terminology committed the majority of these errors. Sixty-three percent of all errors had potential clinical consequences and errors made by ad hoc interpreters were significantly more likely to have clinical consequences than those made by hospital interpreters (77 percent vs. 53 percent).

Errors in medical interpreting in the pediatric setting are common and have potential clinical consequences. Ad hoc interpreters are more likely to make errors that can lead to clinical consequences.
[Key Words: Ad hoc interpreting, Communication analysis, Interpreting practices, Medical language, Professional interpreting; Primary care; Spanish; Massachusetts]

40. Frayne SM, Burns RB, Hardt EJ, Rosen AK, Moskowitz MA. The exclusion of non-English speaking persons from research. Journal of General Internal Medicine. 1996;11:39-43.

This study was designed to assess researchers' reasons for including or excluding non-English-speaking persons (NES) from health services research. A literature review was performed using Medical Subject Headings focused on patient-physician interactions (e.g. "patient education," medical history-taking" and "consumer satisfaction") for articles published between 1989 and 1991 in any of 23 major U.S. medical journals. A survey was sent to each corresponding author in the 216 articles identified, with a response rate of 81 percent. Twenty-two percent of respondents reported including NES in their study design ("includers"). Among the researchers who had decided to exclude NES ("excluders"), the most common reason given was "not having thought of the issue" (51 percent). For those who considered but decided against inclusion of NES, reasons cited included lack of preexisting instruments in the target language, the need to translate responses, the need to recruit bilingual staff and the expense of instrument translation. Includers cited these same factors as issues addressed in the design of their studies. Almost a third of includers believed their overall study results would have been altered had the NES been excluded, whereas only 9 percent of excluders shared that opinion. Since language is likely to have an affect on study outcomes measuring interpersonal relations, the results of such a study involving only English-speaking subjects are not necessarily generalizable to NES populations. Excluders either did not recognize this methodological consideration, or were aware of it but felt including NES would incur unsupportable additional costs. Ninety-five percent of researchers who included NES in their study design reported spending under one-fifth of their budgets on including NES, with more than a third responding that no additional funds were necessary; this included 8 percent who reported the use of informal interpreters including bilingual family members and friends. The authors caution that the cost findings may be limited due to the use of informal interpreters and the omission of interpreter quality as a consideration.

Many researchers exclude non-English-speaking persons from studies due to lack of awareness or concerns over the cost of inclusion. [Key Words: Cost, Research methodology; LEP; United States]

41. Free C, White P, Shipman C, Dale J. Access to and use of out-of-hours services by members of Vietnamese community groups in South London: A focus group study. Family Practice. 1999;16:369-374.

This qualitative study examined barriers to accessing out-of-hours clinics and medical services for the Vietnamese community in southern London, England. Six focus groups, with a total of 51 participants, were facilitated by established members of Vietnamese community groups fluent in English and either Vietnamese and/or Cantonese. Two focus groups were composed of elderly/disabled and their caregivers, two were a mixture of men and older women, and two were composed of younger women, many of whom had children. The focus groups were conducted in Cantonese or Vietnamese, audiotaped, transcribed and translated into English. Most participants were unaware of out-of-hours services and availability of emergency appointments; the authors included excerpts from the sessions that supported this conclusion. Participant explanations for lack of awareness and access barriers included difficulties with language and not understanding the system or rules of the country. They felt unable to utilize out-of-hours services because of difficulty communicating by telephone. Respondents expressed a high degree of confidence in interpreters; however interpreters were rarely available outside normal working hours. In order to supplement this gap, children, family, and friends were often recruited as interpreters. Participants described many situations where family members (including children) and friends were inappropriate or did not have the language fluency to explain things clearly or understand what was said in either language. This study reveals the difficulties that the limited and non-English-speaking communities in England face

when attempting to gain access to after-hours care. [Key Words: Access barrier, Ad hoc interpreting, Qualitative study, Utilization; Primary care; Chinese, Vietnamese; England]

42. Freeman GK, Rai H, Walker JJ, Howie JGR, Heaney DJ, Maxwell M. Non-English speakers consulting with the GP in their own language: A cross-sectional survey. British Journal of General Practice. 2002;52:36-38.

This study was conducted with the goal of measuring how patients' assessments of their care relate to the language in which the clinical visit is conducted. Fifty-six practices throughout the United Kingdom were selected through random sampling as study sites. Patients at these sites were surveyed about the care they received, both before and after the consultation. Out of a total of 25,842 adult consultations, 7.9 percent involved patients who spoke a language other than English at home. The patients who completed their consultation in Punjabi or Gujarati rated their care the highest despite having the shortest mean visit time (5.1 minutes). South Asian speakers consulting in English had the next highest ratings, followed by other non-English speakers. The English-speaking group had the lowest care ratings despite having the longest visits (8 minutes). In multivariate analyses, higher care ratings were independently predicted by language status, consulting in one's own language, and knowing the doctor better. As the authors suggest, these findings may be the result of cultural differences between the two groups and differences in the way they view and rate their care.

Patients appear to derive benefit from visits conducted in their own language even if the visit time is short. [Key Words: Language concordance, Patient satisfaction; Primary care; Gujarati, Punjabi; England]

43. Garrett CR, Treichel CJ, Ohmans P. Barriers to health care for immigrants and non-immigrants: A comparative study. Minnesota Medicine. 1998;81:52-55.

This study involved a survey of medical social workers and visiting public nurses to identify health problems and compare barriers encountered by immigrants and non-immigrants in the Minneapolis/St. Paul area. Participants were asked to complete a self-administered survey to identify and weight on a five-point Likert scale the most common health problems, availability of services, and potential logistical and cultural barriers to health care faced by immigrants and non-immigrants. The survey also included questions about the respondents' background demographics. Fifty-eight individuals completed the survey, 91 percent of whom were European-Americans, with the remainder evenly divided between African-Americans, Native-Americans and Asian-Americans. Chi-squared and t-tests were used for comparing the responses for immigrants and non-immigrants. Language problems and access to trained interpreters were the only logistical barriers that were felt to differ between the two groups. Potential cultural barriers included gender issues, attitudes towards intrusive/invasive procedures, beliefs about diseases, lack of acknowledgement of family systems, providers seen as alien/distant, and stigma or shame over health conditions. Infectious diseases were also identified as significant problems for immigrants. Study participants indicated that most clinical and related social services were less available for immigrants than non-immigrants.

Service providers recognize that immigrants face additional linguistic and cultural barriers to care compared with non-immigrants. [Key Words: Access barrier, Health beliefs; Public Health; LEP; Minnesota]

44. Gerrish K. The nature and effect of communication difficulties arising from interactions between district nurses and South Asian patients and their carers. Journal of Advanced Nursing. 2000;33:566-574.

The aim of this study was to examine how recent policy directives aimed at improving health care organizations' responsiveness to differences in language, culture and religion affected communication difficulties between nurses and South Asian (Bangladeshi, Pakistani and Indian) patients in a single English city. An ethnographic approach was taken and included participant observation of six district nursing teams, four with high South Asian caseloads and two with high white caseloads. The nurse collecting the data made a subjective evaluation of patient's English ability. According to her assessment, more than 45 percent of South Asian patients had a good command of English, while almost 30 percent understood no English at all. The majority of patients with poor English understanding were elderly and female. In cases where the patients spoke little or no English, the nurses relied on family members to interpret 60 percent of the time; 37.3 percent of the time no one was available to interpret. Although the health care organization provided interpreters in the main South Asian languages spoken in the community, the nurses rarely utilized them. The reasons cited for not using interpreters included the fact that they had to be scheduled two days in advance, nurses' lack of confidence in the dedicated interpreters' skills, and fear that patients would be uncomfortable with a stranger interpreting. Nurses also expressed discomfort in using family members due to issues of confidentiality and inaccuracy of interpreting, yet relied upon them heavily.

Use of dedicated interpreters is hindered by a lack of timely access and fears about the quality and confidentiality of the interpretation they provide. [Key Words: Ad hoc interpreting, Institutional policy, Interpreting practice, Need; Primary care, Qualitative study; Asian languages; England]

45. Ghandi TK, Burstin HR, Cook EF, et al. Drug complications in outpatients. Journal of General Internal Medicine. 2000;15:149-154.

This study, based on a survey of 2,248 randomly selected adult outpatients from eleven Boston area ambulatory clinics, was designed to assess the incidence and characteristics of outpatient drug complications, identify their clinical and non-clinical correlates, and evaluate their impact on patient satisfaction. Patients were eligible for the study if they were between the ages of 20 and 75, had made at least one visit to an attending physician in the preceding year, and spoke English or Spanish. For participating patients, a chart review was performed to collect information on diagnoses, medications, allergies, hospitalizations and adverse drug events. This was followed by a telephone survey, conducted in English or Spanish, designed to collect information on sociodemographic characteristics, patient satisfaction, health status, utilization and drug complications. Multiple regression showed that having a primary language other than English or Spanish was an independent predictor of patient-reported drug complications, along with the number of medical problems and failure to have side effects explained before treatment. The level of overall satisfaction was significantly lower among patients who reported problems related to medication use than among those who did not.

Language barriers may play a role in outpatient drug complications, which in turn is related to lower patient satisfaction. [Key Words: Medication, Outcomes (patient reported), Patient satisfaction; Primary care; LEP; Massachusetts]

46. Gerrish K. The nature and effect of communication difficulties arising from interactions between district nurses and South Asian patients and their carers. Journal of Advanced Nursing. 2000;33:566-574.

The aim of this study was to examine how recent policy directives aimed at improving health care organizations' responsiveness to differences in language, culture and religion affected communication difficulties between nurses and South Asian (Bangladeshi, Pakistani and Indian) patients in a single English city. An ethnographic approach was taken and included participant observation of six district nursing teams, four with high South Asian caseloads and two with high white caseloads. The nurse collecting the data made a subjective evaluation of patient's English ability. According to her assessment, more than 45 percent of South Asian patients had a good command of English, while almost 30 percent understood no English at all. The majority of patients with poor English understanding were elderly and female. In cases where the patients spoke little or no English, the nurses relied on family members to interpret 60 percent of the time; 37.3 percent of the time no one was available to interpret. Although the health care organization provided interpreters in the main South Asian languages spoken in the community, the nurses rarely utilized them. The reasons cited for not using interpreters included the fact that they had to be scheduled two days in advance, nurses' lack of confidence in the dedicated interpreters' skills, and fear that patients would be uncomfortable with a stranger interpreting. Nurses also expressed discomfort in using family members due to issues of confidentiality and inaccuracy of interpreting, yet relied upon them heavily.

Use of dedicated interpreters is hindered by a lack of timely access and fears about the quality and confidentiality of the interpretation they provide. [Key Words: Ad hoc interpreting, Institutional policy, Interpreting practice, Need; Primary care, Qualitative study; Asian languages; England]

47. Giacomelli J. A review of health interpreter services in a rural community: A total quality management approach. Australian Journal of Rural Health. 1997;5:158-164.

This article uses the responses from 311 surveys completed by staff at clinics in New South Wales, Australia to describe patterns of interpreter services use and to devise strategies to improve the quality of care that non-English-speaking patients receive. In 239 of the 311 surveys, a staff member called for a non-accredited interpreter or inappropriately assessed patients' interpreting needs by assuming that their level of English comprehension was sufficient to understand complicated medical advice. There was a tendency for staff to make a determination that patients/clients spoke English, without checking their comprehension level or asking if they wanted an interpreter. The use of non-accredited interpreters and, in many instances, no interpreter at all, was associated with unfamiliarity with the clinic's interpreting policy. Strategies to develop adequately trained employees included staff training on cultural awareness and the development of a measurement tool to help employees assess patients' language proficiency and need for interpreters.

The lack of awareness of interpreting policies in these Australian clinics resulted in inappropriate language assessments and use of non-accredited interpreters. [Key Words: Institutional policy, Interpreting practices; Primary care; LEP; Australia]

48. Hampers LC, Cha S, Gutglass DJ, Binns HJ, Krug SE. Language barriers and resource utilization in a pediatric emergency department. Pediatrics. 1999;103(6):1253-1256.

This was a study, conducted in Chicago, to determine if language barriers between families and their physician are associated with differences in diagnostic testing and length of stay in a pediatric emergency

room. Patients had one of four problems: fever, vomiting, diarrhea, or reduced oral intake. The physician was responsible for determining whether there was a language barrier (LB) present. An interpreter was present in 76 percent of the encounters with a LB, and was a mix of professional and ad hoc interpreters. Encounters with a LB (n=209) were compared to those without (n=2258). Eighty-eight percent of patients in LB encounters were Hispanic. After controlling for measures of acuity and demographic characteristics, patients with a LB were significantly more likely to receive intravenous fluids and to be admitted to the hospital. The length of stay in the emergency room was also significantly longer by an average of 28 minutes. While there was not a difference in the number of diagnostic tests performed, patients with a LB had significantly higher mean test charges ($145 vs. $104).

Encounters in which a language barrier is present may be more likely to generate more aggressive treatment, hospital admissions, and mean test charges. [Key Words: Comparison study, Cost, Duration, Utilization; Emergency medicine, Pediatrics; LEP; Illinois]

49. Hampers LC, McNulty JE. Professional interpreters and bilingual physicians in a pediatric emergency department. Archives of Pediatric Adolescent Medicine. 2002;156(11):1108-1113.

The objective of this study was to determine the impact of interpreters and bilingual physicians on emergency department resource utilization. The investigators measured the effect of having a bilingual physician or professional interpreter on the incidence and cost of diagnostic testing, use of intravenous hydration, length of emergency department stay and admission to the hospital. They studied four types of visits: 1) those conducted in English without difficulty (n=3596), 2) those conducted by the physician in a language other than English (n=170), 3) those conducted in a language other than English with the assistance of a professional interpreter (n=141) and 4) those conducted with an ad hoc interpreter or in English without an interpreter, even though the patient was not fluent in English (n=239). The treating physicians determined whether or not the patient had difficulty speaking English and whether or not they could communicate with their patient in a language other than English. In multivariate analyses, non-English-speaking patients seen by bilingual physicians had similar rates of resource utilization to English-speaking patients. Non-English-speaking patients seen with a trained interpreter had similar test costs, were significantly less likely to have tests ordered, had significantly longer visit times, and were more likely to be admitted to the hospital than English-speaking patients. Patients seen when a language barrier was present and a professional interpreter was unavailable had a significantly higher incidence and cost of testing and were most likely of all four groups to receive intravenous fluids and to be admitted to the hospital; there was no difference in visit times.

Professional interpreters may improve communication and increase physician assurance to a degree that approximates clinical encounters in which no language barrier exists. [Key Words: Comparison study, Cost, Duration, Efficacy, Language concordance, Professional interpreting, Utilization; Emergency medicine, Pediatrics; LEP; Illinois]

50. Harlan LC, Bernstein AB, Kessler LG. Cervical cancer screening: Who is not screened and why? American Journal of Public Health. 1991;81(7):885-891.

The investigators used data from the 1987 National Health Interview Survey to examine factors associated with utilization of Pap smears by white (n=9833), African-American (n=1918), and Hispanic (n=848) women in the United States. Hispanic women in the study were found to have the lowest utilization of Pap smears. A logistic regression analysis exploring the reasons for this disparity found that women who reported speaking only or mostly Spanish were significantly less likely to have heard of Pap smears, and were less

"compliant" than those who spoke mostly English. Regardless of ethnicity or language, women with no usual source of care were also less likely to have heard of Pap smears than those who used doctors' offices for care. The authors suggest these findings may be due language barriers, low acculturation, or both.

Language barriers may account for disparities in use of Pap smears between Hispanic and non-Hispanic white women. [Key Words: Prevention, Utilization; Primary care; Spanish; United States]

51. Hatton DC. Information transmission in bilingual, bicultural contexts. Journal of Community Health Nursing. 1992;9(1):53-59.

This is a study based on participant observation of two Spanish interpreters (training not described) as they worked with clients and patients in community health care settings over a period of eight months. The interpreters worked primarily with childbearing women in their early twenties, with the majority of health interactions related to antepartum and postpartum care or infant and child care. Additionally, interviews were conducted with clients, interpreters, health care providers and receptionists in a variety of settings, including private ambulatory care facilities, public health departments and other health care agencies. The transcribed interviews and field note data were analyzed using grounded theory methodology which resulted in a set of dimensions representing how the interpreters worked and understood their social world. The author's analysis shows that interpreters engaged in a complex process of clarification and explanation of ideas from one language to another, involving judgment and decision-making about the circumstances under which information was exchanged. Interpreters carefully appraised their task, the client, the provider and the information presented by both parties in the conversation. In particular, the interpreters made the choice of relaying some, all, or elaborating on the information presented by either patient or provider. An objective assessment of content accuracy in the observed interactions was not performed. The author makes recommendations regarding the importance of carefully selecting interpreters, clarifying their roles and reviewing the situation and information to be interpreted both prior to and after the health care encounter.

This study highlights the complexity of medical interpreting and the influence interpreters have in controlling the information relayed between patient and provider. [Key Words: Communication analysis, Interpreter role, Qualitative study; Obstetrics and gynecology, Pediatrics; Spanish; California]

52. Hatton DC, Webb T. Information transmission in bilingual, bicultural contexts: A field study of community health nurses and interpreters. Journal of Community Health Nursing. 1993;10(13):137-147.

This purpose of this article was to describe the findings from a field study of nurses and interpreters working in a county health department in California. The investigators interviewed 22 registered nurses and 15 interpreters about information transmission in bilingual, bicultural encounters. Three different interpreter roles emerged from a grounded theory analysis of the interview data. The first role was interpreter as "voice box" or simple translation without introducing "bias" into the interaction. The second was as "excluder" in which the interpreter "takes over" the interaction with the client. The third was as "collaborator" in which the nurse and interpreter are seen as colleagues who work together. The collaborative interactions were seen as best because they allowed for both interpreters and community health nurses to establish rapport with clients, which would theoretically enhance client outcomes.

Interpreters may play one or more of many roles in an interpreted encounter. [Key Words: Interpreter role, Qualitative study; Public health; Spanish, California]

53. Hayward PJ, Woo M, Kangesu E. One solution to the linguistic problems faced by health visitors. Health Visitor. 1991;64(6):185-187.

This article presents the results of a pilot study measuring the necessity and anticipated use of a proposed interpreter program near London, England. A questionnaire was sent to 83 public home health nurses seeking information about their day-to-day work, caseloads, ethnic minorities they treated and languages perceived as causing the most communication difficulties. Fifty-six responses were received. It was estimated from caseload statistics that the respondents served 1,800 ethnic minority families. Bengali, Gujarati and Chinese were the languages most commonly encountered. Sixty-six percent of public home health nurses felt that an interpreter would be helpful and 48 percent reported that they would call on an interpreting service between one and three times per month. Concerns regarding interpreters were about the possible lack of confidentiality and accuracy, and not about the necessity of working with interpreters, which may suggest a lack of standardized protocols and/or limited training for medical interpreters in London.

Public health nurses in London serve an ethnically diverse population, and feel that interpreter services would be helpful to their work. [Key Words: Need; Public Health; LEP; England]

54. Heaney C, Moreham S. Use of interpreter services in a metropolitan healthcare system. Australian Health Review. 2002;25:38-45.

This study explored interpreter service utilization in an Australian health care system composed of three campuses. Each had a certain number of government-funded interpreter slots available per month through an interpreter agency and the ability to purchase more if needed. One campus had an on-site interpreter booking service coordinated by a fulltime Interpreter-in-Charge. A total of 109 participants from a variety of disciplines completed questionnaires asking about their knowledge and use of interpreter services at their institution. Eighty-eight percent of respondents indicated that they were familiar with the interpreter services available at their site and 83 percent reported they knew how to access these services. Factors reported to negatively affect respondents' use of interpreter services included a preference for using family or friends (20 percent) and bilingual staff (14 percent), long wait-times for the professional interpreters (21 percent), and a lack of guidelines for interpreter use (14 percent). A small number of respondents indicated that they were unsure of how to work with interpreters (7 percent) or had not had training on how to work with interpreters (6 percent). When asked what they did when they did not have access to an interpreter, a large proportion of the participants responded that they relied on friends, family and bilingual staff or managed without an interpreter. There were statistically significant relationships between familiarity with interpreter services, knowledge of how to use them and interpreter service use. Those respondents who reported unfamiliarity with the interpreter services at their institution were also significantly more likely to report that a lack of guidance and protocols at their institution negatively affected their use of interpreter services.

Education of how to access and use interpreter services may increase the use of these services. [Key Words: Ad hoc interpreting, Institutional policy, Interpreter preference, Professional interpreting; LEP; Australia]

55. Henbest RJ, Sam Fehrsen G. Patient-centredness: is it applicable outside the West? Its measurement and effect on outcomes. Family Practice. 1992; 9:311-317.

A goal of this study was to test the effectiveness of a patient-centered approach among poor, 'non-Western' people in South Africa. Patient-centeredness was measured in a standardized manner by the health practitioner's facilitation of patients' expression of their reasons for coming to the visit, including

symptoms, thoughts, feelings and expectations for the visit. Consultations between nurse practitioners, physicians and their patients at three primary care settings were audiotaped and scored by three raters as to their degree of patient-centeredness. In addition, patients completed a semi-structured interview immediately following each visit asking them about how they felt during the visit. Patients and practitioners were from a total of 12 different language groups, with four common languages between the two groups (Southern Sotho, Shangaan, Tswana, and Zulu). Less than half of the visits were conducted in either the same (30 percent) or a related (17 percent) language as the patient's native language. Interpreters were involved in 11 percent of the visits. Patient-centeredness was significantly associated with patient reports of feeling understood, patient-practitioner agreement, symptom resolution and concern resolution. In addition, the mean patient-centeredness score was significantly higher for the consultations involving interpreters than for those not involving interpreters.

Interpreter facilitation of patient visits improves the patient-centeredness of primary care encounters. [Key Words: Communication analysis, Efficacy, Outcomes (patient-reported), Primary care; LEP; South Africa]

56. Hornberger JC, Gibson CD, Wood W, et al. Eliminating language barriers for non-English-speaking patients. Medical Care. 1996;34(8):845-856.

This was a randomized controlled study comparing remote-simultaneous interpretation (interpreter in remote location, communicating with patient and doctor via microphone headsets) to standard proximate-consecutive (face-to-face) interpretation at the Santa Clara Valley Medical Center in Northern California. All encounters were conducted in a well-baby clinic, which was selected for the highly standardized nature of the visits. Measured outcomes included the amount of information exchanged in the encounter, the accuracy of the interpretation, and mother, physician, and interpreter preferences between the two language services. Forty-nine monolingual, Spanish speaking mothers who had just given birth were randomized to receive one of the two methods of interpretation on their first well-baby visit. The interpreting methods were alternated at each subsequent visit over the next six months. Each visit was audiotaped and analyzed. Encounters with remote-simultaneous interpretation had significantly more verbal utterances by both physicians and patients, and fewer inaccuracies of both physicians' and mothers' utterances. Physicians reported improved eye contact with patients using the remote-simultaneous system and preferred this method, as did the patients. There was no difference in visit time between the two methods. Interpreters stated that they thought communication was better in the remote-simultaneous service, but preferred to work with the proximate-consecutive service.

This study suggests remote-simultaneous interpretation may be superior to proximate-consecutive, at least for Spanish-speakers in straightforward clinical encounters. [Key Words: Communication analysis, Efficacy, Interpreter preference, Patient satisfaction, Professional interpreting; Pediatrics; Spanish; California]

57. Hornberger J, Itakura H, Wilson SR. Bridging language and cultural barriers between physicians and patients. Public Health Reports. 1997;112: 410-417.

This study explored Northern California primary care physicians' use of various methods to bridge language barriers and their perceptions of the availability and quality of those methods. Sixty-one percent of the 495 surveyed physicians responded. The majority of physicians were in private practice (72 percent) and reported an average of 21 percent of their visits to be with patients who spoke little or no English. In 27 percent of those encounters, the physician was able to speak the patient's language. In 11 percent no interpretation was provided. Trained interpreters (6 percent), untrained staff (20 percent), and family and friends (35 percent) interpreted the remaining encounters. Physicians reported, on average, similar levels

of availability across three types of interpretation: trained interpreters, untrained medical staff, and ad hoc interpreters. Those who used trained medical interpreters rated the quality of interpretation significantly higher than those using other types of interpreters. Physicians provided more than 162 written comments on the availability and quality of services provided, roughly half of which were positive. Some positive comments pertained to physicians' opinions that ad hoc and family interpreters were sufficient and that telephonic interpreting services were useful because of the number of languages they cover. Negative comments included the limited availability and long waits associated with professional interpreters.

Physicians in this study used a variety of methods for medical interpreting; those who used trained interpreters rated the quality of interpretation higher than those who used ad hoc interpreters. [Key Words: Ad hoc interpreting, Interpreter preference, Interpreting practices, Professional interpreting; Primary care; LEP; California]

58. Hu DJ, Covell RM. Health care usage by Hispanic outpatients as a function of primary language. The Western Journal of Medicine. 1986;144:490-493.

The objective of this study was to explore the relationship between primary language spoken and health care usage. The investigators administered a questionnaire in either English or Spanish to 190 Hispanics at five San Diego outpatient clinics. Respondents were divided into 3 groups based on their language ability: Spanish-speaking only (n=114), bilingual (n=54), and English-speaking only (n=22). More than 80 percent of respondents chose to complete the questionnaire in Spanish. The percentage of respondents reporting a regular source of care, access to adequate health care and excellent health status decreased with the English-language ability of each group. In multivariate analyses, the Spanish-speaking-only group had significantly lower use of general physical and eye and dental checkups, compared to the other two groups.

Reduced English proficiency negatively affects the use and uptake of health services. [Key Words: Access barrier, Comparison study, Outcomes (patient reported), Utilization; Primary care; Spanish; California]

59. Jackson JC, Rhodes LA, Inui TS, Buchwald D. Hepatitis B among the Khmer: Issues of translation and concepts of illness. Journal of General Internal Medicine. 1997;12:292-298.

This Seattle, Washington, study identified issues encountered with Khmer interpretations for the term "hepatitis B" and sought to determine if public health translations of the disease information were meaningful to Cambodian patients (who speak Khmer). Two additional objectives included exploring Cambodian understandings of illness associated with hepatitis-like symptoms and examining medical language and its effects on physician-patient communication. Thirty-four refugees were interviewed in a semi-structured conversational manner; the sessions were audiotaped and transcribed. The term "hepatitis B" was interpreted literally as "liver disease," which was anatomically accurate, but meaningless to 82 percent of the Khmer respondents. More common were references to symptoms caused by a "weak liver." Participants familiar with illness symptoms did not associate the organ (liver) with the symptoms, instead categorizing illness by a variety of external causes.

References and connotations embedded in the language of one culture are difficult to interpret into a second language which does not share the same concepts, and requires more than literal word-for-word translations. [Key Words: Health beliefs, Medical language, Qualitative study, Refugees; Khmer; Washington]

60. Jacobs EA, Lauderdale DS, Meltzer D, Shorey JM, Levinson W, Thisted RA. Impact of interpreter services on delivery of health care to limited-English-proficient patients. Journal of General Internal Medicine. 2001;16:468-474.

The goal of this study was to determine the effects of a professional interpreter program on delivery of health services to limited-English-speaking patients in a large health maintenance organization. The investigators compared the receipt of clinical services between two groups in the year prior to (year 1), and the year after (year 2) the implementation of interpreter services. The interpreter service group (n=327) included Spanish and Portuguese speaking patients. The control group (n=4,053) was a random sample of all other health care members who did not use interpreter services. In multivariate analysis, the interpreter service group had a significantly greater increase between year one and year two in the number of office visits, receipt of preventive care, prescriptions written and prescriptions filled when compared to the control group. This suggests that the increase in these services was due to the implementation of the interpreter services and not a trend in the health maintenance organization overall.

Provision of professional interpreter services can increase delivery of preventive and primary care. [Key Words: Efficacy, Medication, Outcomes (measured), Prevention, Professional interpreting, Utilization; Managed care, Primary care; Portuguese, Spanish; Massachusetts]

61. Jang M, Lee E, Woo K. Income, language, and citizenship status: Factors affecting the health care access and utilization of Chinese Americans. Health & Social Work. 1998;23(2):136-145.

This article reports the results of a survey of 1,808 adult Chinese-American residents of San Francisco. The goal of the survey was to understand the impact of income, language, citizenship status and acculturation on insurance status and having a usual source of care. The measure of language was self-report of speaking Chinese at home. Language was found to be a barrier to having a regular source of care, although less than 10 percent of respondents mentioned language difficulties as the primary barrier. In logistic regression analysis, respondents who only spoke Chinese had twice the odds of having no insurance. In addition, measures on an Acculturation Index that included a measure of language were negatively associated with having a usual source of care and health insurance. Other significant factors associated with lack of insurance in this population were low household income, non-citizen status, age and length of time living in the United States. These results should be interpreted with caution because some of the reported significant results have associated confidence intervals that cross one.

Respondents who report only speaking Chinese at home may be at risk for not having a usual source of care and insurance. [Key Words: Access barrier, Acculturation, Insurance; Primary care; Chinese; California]

62. Jeremiah JP, O'Sullivan MS, Stein MD. Who leaves against medical advice? Journal of General Internal Medicine. 1995;10:403-405.

This study was conducted at a hospital in Rhode Island to understand the reasons why patients leave the hospital against medical advice. The investigators compared characteristics of patients who left the hospital against medical advice (n=39) to patients who remained in the hospital (n=39) over a five-month period. In univariate analyses, speaking a primary language other than language was significantly associated with leaving against medical advice. However, this was not found to be a significant predictor in multivariate analyses that controlled for multiple factors, including primary diagnosis, substance use, and access to primary care. Significant factors associated with leaving against medical advice included not having a

primary care physician and previously leaving against the advice of a physician.

Language barriers may play a role in leaving the hospital against medical advice. [Key Words: Adherence; Hospital; LEP; Rhode Island]

63. Karter AJ, Ferrara A, Darbinian J, Ackerson LM, Selby JV. Self monitoring of blood glucose: Language and financial barriers in a managed care population with diabetes. Diabetes Care. 2000;23(4):477-483.

The objective of this study was to explore barriers to self-monitoring of blood glucose among patients with diabetes. Data were collected from surveys returned by 44,181 adults with pharmacologically treated diabetes in a large health maintenance organization. Respondents were categorized as having difficulty communicating in English if they requested the survey or health education materials in another language. Materials were available in Spanish, Chinese, Vietnamese and Tagalog. In multivariate models, patients with diabetes who had difficulty communicating in English were significantly less likely to adhere to recommended practices for self-monitoring blood glucose. Other significant independent predictors of adherence included socioeconomic factors such as education, and clinic factors such as receiving less intensive therapy.

This study provides strong-evidence that language barriers may contribute to gaps between actual and recommended diabetes self-management practices. [Key Words: Adherence, Diabetes, Outcomes (patient reported); Managed care; LEP; California]

64. Kaufert JM, Koolage WW. Role conflict among 'culture brokers': The experience of native Canadian medical interpreters. Social Science Medicine. 1984;18(3):283-286.

This is a descriptive study examining the roles of Cree- and Saulteau-speaking medical interpreters in Manitoba, Canada. The authors use case examples from eight audiotaped interviews with interpreters, participant-observation data, and interviews with Native patients, physicians, and hospital administrators to illustrate scenarios that interpreters face, situations of potential conflict, and examples of how interpreters mediate such situations. The most significant source of conflict emerged from the failure of clinicians and administrators to recognize the significance of the interpreter in influencing outcomes of the patient-clinician interaction. Four main roles were observed. In the role of "direct linguistic translator" (or "conduit"), interpreters converted terminology from the source language into equivalent terms in the target language. As "culture-broker informants," interpreters explained aspects of Native culture to clinicians. Interpreters also functioned as "culture broker-biomedical interpreters" for patients, explaining medical terms, procedures and sometimes the necessity for medical care. As "patient advocates," interpreters took the side of the patient and the cultural values of the community, as opposed to supporting the values of the clinician and the hospital. Conflicts arose when either party would dismiss or not understand the necessity of the other, when clinicians would ignore cultural customs, or patients would not understand the necessity of the clinicians' recommended treatment.

Conflict in the medically interpreted clinical encounter may arise from multiple sources. [Key Words: Interpreter role, Qualitative study; Hospital; Cree, Saulteau; Canada]

65. Kaufert JM, O'Neil JD, Koolage WW. Culture brokerage and advocacy in urban hospitals: The impact of Native language interpreters. Santé Culture and Health. 1985;3(2):3-9.

The purpose of this study was to understand the advocacy functions performed by Cree- and Saulteau-speaking interpreters who work in urban hospitals providing care to Native Canadians. The investigators videotaped and content-analyzed an unspecified number of interviews with clinicians, patients and interpreters before and after medical encounters. The analysis revealed that medical interpreters function in several roles: 1) as direct translators; 2) as cultural informants to physicians and administrators; 3) as biomedical informants, explaining biomedical concepts and hospital structure to patients; and 4) as patient advocates. In addition, interpreters often serve as community advocates for the Native Canadian community. As the authors point out, the extension of the interpreter's role to cultural brokerage and advocacy involves the potential for role conflict. They note that expanding the role that medical institutions ask interpreters to play could ease this conflict.

Interpreters often find themselves playing multiple roles that conflict with the strict role of interpreting words. [Key Words: Interpreter role, Qualitative study; Hospital; Cree, Saulteau; Canada]

66. Kelly NR, Groff JY. Exploring barriers to utilization of poison centers: A qualitative study of mothers attending an urban Women, Infants and Children (WIC) clinic. Pediatrics. 2000;106(1):199-204.

The objective of this study was to learn more about the factors contributing to the underutilization of poison centers by low-income and minority mothers. Researchers analyzed transcripts from seven focus groups with English-speaking (n = 22) and Spanish-speaking women (n=21) recruited from an urban Women, Infants and Children clinic in Houston, Texas. All of the Spanish-speaking participants spoke Spanish as the primary language in their home. The researchers found that while both groups of mothers were aware of poisoning as a serious problem, the Spanish-speaking mothers had not heard of the poison control center and did not know what services it provided. Spanish-speaking mothers repeatedly cited the inability to speak English and the fear that the poison control center did not have bilingual personnel as reasons for preferring '911' to the poison control center. The authors also mention cultural factors, such as shyness to initiate a call and fear from not knowing United States laws — for example, the fear that a call could possibly lead to claims of child negligence — as reasons for not utilizing the poison control center.

This study indicates that educational programs and materials in Spanish are needed to enhance Spanish-speaking mothers' understanding and use of poison control centers. [Key Words: Access barrier, Acculturation; Public health, Qualitative study; Spanish; Texas]

67. Kirkman-Liff B, Mondragon D. Language of interview: Relevance for research of southwest Hispanics. American Journal of Public Health. 1991;81:1399-1404.

This study investigated the effects and relevancy of interview language on access to health care and health status in a Hispanic sample population in Arizona. Data was collected from 4,217 interviews, primarily conducted by telephone, but with 144 occurring in-person. Respondents were asked to self-identify race and ethnicity, and whether they preferred to be interviewed in English or Spanish. Researchers focused on households below the federal poverty line and asked about current health status, disability, usual source of care, medical care use, non-receipt of needed care, refusal of medical care, access to care and financial problems from illness. Four questions pertained to adults and four were designed to obtain information

about children. Logistic regression analysis showed that (parents') language of interview for Hispanic children was a significant variable, more important than ethnicity, in determining health status, access, satisfaction with care, and barriers to care. Children of Spanish-speaking Hispanics received worse evaluations in all measures when compared to English-speaking Hispanic families and Anglos. For Hispanic adults, income was more important than either language of interview or ethnicity in determining health status, access, and satisfaction with care.

Language may be a greater barrier to care for Hispanic children than ethnicity. [Key Words: Access barrier, Outcomes (patient reported), Patient satisfaction; Spanish; Arizona]

68. Kline F, Acost FX, Austin W, Johnson Jr RG. The misunderstood Spanish-speaking patient. American Journal of Psychiatry. 1980;137(12):1530-1533.

This study, conducted at an outpatient psychiatric clinic in Los Angeles, compared patient and therapist perceptions of interpreter use in clinical encounters. Spanish-surnamed patients were divided into two groups: 21 patients who requested and used an interpreter (training not described) and 40 patients who neither requested nor used an interpreter, 32 of whom self-identified as bilingual. All 16 therapists were non-Spanish-speaking third year psychiatry residents. Patients were asked to complete a questionnaire immediately after their initial intake interview asking about the patients' experience of care; those patients who used an interpreter received a Spanish version. The residents completed a separate questionnaire at a later date gauging their feelings about interviewing patients directly versus through an interpreter. Responses between the two groups of patients, and between patients and psychiatrists, were compared using chi-square tests. Patients who were interviewed with interpreters were generally more satisfied with their clinical encounter than those who were interviewed in English, and were significantly more likely to feel that the doctor helped them (76 percent vs. 40 percent). In contrast, all the therapists felt that patients were more likely to feel helped when they could communicate with their therapist directly. When their responses were compared directly, patients and therapists differed significantly on a number of assessments, including patient comfort with follow-up care, eagerness to return and feeling understood.

The use of interpreters can improve patient experience of the therapeutic encounter despite clinician discomfort with using interpreters. [Key Words: Interpreter preference, Patient satisfaction; Mental health; Spanish; California]

69. Kravitz RL, Helms LJ, Azari R, Antonius D, Melnikow J. Comparing the use of physician time and health care resources among patients speaking English, Spanish, and Russian. Medical Care. 2000;38(7):728-738.

The goal of this study was to measure the effect of Limited English Proficiency on the duration of clinical visits and resource use in three adult primary care clinics in Northern California. Medicaid patients who spoke English (n=112), Spanish (n=62) and Russian (n=111) were recruited for the study. Clinic staff determined whether patients needed linguistic assistance, which was provided through a mix of ad hoc interpreting and staff interpreters. In multivariate analyses, Spanish- and Russian-speaking patients required significantly more physician time, as measured by time-motion study, compared to English-speakers (9.1 minutes and 5.6 minutes more, respectively). These time differences were even greater when a professional interpreter was involved in the visit; 12.2 additional minutes per visit for Spanish-speakers and 7.1 minutes for Russian speakers. However, the language effect was largely confined to follow-up visits with resident physicians. Compared to English-speaking patients, Spanish-speaking patients were significantly less likely to follow-up on ordered laboratory tests and Russian-speaking patients were nearly

twice as likely to receive specialty referrals. The investigators also calculated "cost implications" by calculating the cost of the incremental physician time and the direct costs of the interpreter services.

This study suggests that the impact of caring for patients with limited English proficiency on time and resource utilization is context and culture specific. [Key Words: Adherence, Comparison study, Cost, Duration, Efficacy, Outcomes (measured), Professional interpreting, Utilization; Primary care; Russian, Spanish; California]

70. Kuo D, Fagan MJ. Satisfaction with methods of Spanish interpretation in an ambulatory care clinic. Journal of General Internal Medicine. 1999;14:547-550.

The goal of this study was to describe the different types of Spanish interpretation used in an outpatient clinic and to determine physicians' and patients' satisfaction with these methods. One hundred forty-nine Spanish-speaking patients completed the study survey after a primary care visit (response rate = 94 percent); 62 medical residents filled out a survey left in their administrative mailboxes (response rate = 69 percent). Patient language was determined by research assistants, who asked patients if they spoke English, and if not, whether they spoke Spanish. Over 90 percent of patients were from Guatemala, the Dominican Republic or Puerto Rico. Surveys asked both patients and residents about the frequency with which they used five different methods of interpretation and how satisfied they were with each method. Ninety percent of physicians and 65 percent of patients reported that they sometimes or frequently used family members and friends. Physicians and patients, respectively, reported significant differences in whether they "often used" professional interpreters (75 percent vs. 65 percent), telephone interpreters (75 percent vs. 45 percent), bilingual staff (23.5 percent vs. 77 percent), and bilingual physicians (11 percent vs. 20.5 percent). They also had significantly different satisfaction ratings of the different methods. A higher percentage of patients were "somewhat" or "very" satisfied with family and friends (85.1 percent) and physician interpreters (75 percent) than were residents (62.0 percent and 47.5 percent respectively). A higher percentage of physicians were satisfied with telephone interpreting (74.5 percent) than were patients (53.3 percent). Both groups rated professional interpreters high (over 93 percent) and bilingual staff low (under 43.6 percent). Significantly more of the residents (70.0 percent) than the patients (27.4 percent) thought that an interpreter should have been used during visits and was not and 62 percent of the residents versus 16.2 percent of the patients thought that inadequate care resulted from inappropriate or unavailable interpreter services. The two groups agreed that availability, accuracy and confidentiality were important characteristics for interpreters. Significantly more patients than physicians thought that it was important for interpreters to be available after the visit (94 percent vs. 45 percent), that they have familiarity with the patient (56.8 percent vs.15.7 percent), and that they should be the same gender as the patient (53.7 percent vs.7.8 percent).

Patients and physicians may disagree about what characteristics are important for good interpretation, what types of interpreters are best and the importance of interpreters in reducing language barriers. [Key Words: Ad hoc interpreting, Interpreter preference, Interpreting practices, Professional interpreting; Primary Care; Spanish; Rhode Island]

71. Lang R. Orderlies as interpreters in Papua New Guinea. Papua New Guinea Medical Journal. 1975; 18: 172-177.

The objective of this study was to evaluate whether or not medical orderlies in Papua New Guinea could adequately serve as medical interpreters despite not having had any interpreter training. The author audiotaped and transcribed an unspecified number of encounters between doctors and patients in two

New Guinean hospitals. He then reviewed the transcripts to ascertain whether or not the orderlies' interpreter role resembled that commonly taught at interpreter schools in Europe. The languages interpreted were Tok Pisin and Enga. The author found that there was considerable role-confusion that led the orderly to act more like an orderly than an interpreter: initiating questions, offering his own explanations for patient issues, and interrupting. Often the encounter proceeded with the physician's relying on the orderly to take the history rather than questioning the patient directly with interpretation, and the patient directing all discourse to the orderly. This type of interpretation led to problems of addition, omission and misinterpretation.

Hospital orderlies without interpreter training in New Guinea make frequent interpreting mistakes. [Key Words: Ad hoc interpreting, Communication analysis, Interpreter role; Hospital; Tok Pisin, Enga; New Guinea]

72. Lasater LM, Davidson AJ, Steiner JF, Mehler PS. Glycemic control in English- vs. Spanish-speaking Hispanic patients with type 2 diabetes mellitus. Archives of Internal Medicine. 2001;161:77-82.

The goal of the investigators was to determine whether the inability to speak English adversely affected glycemic control in Hispanic patients with type 2 diabetes. They studied 79 Spanish-speaking and 104 English-speaking Hispanic participants, and collected data on the participants' health care usage, understanding of their diagnosis and glycosylated hemoglobin A1C (HgbA1c) levels. Univariate methods were used to analyze the data. HgbA1c levels did not differ significantly between the two groups. However, there was a trend towards better HbgA1c levels among Spanish-speaking patients seen by Spanish-speaking doctors when compared to Spanish-speaking patients seen by English-speaking providers. There were significant differences between the two groups in processes of care: Spanish-speaking patients were less likely to have received written educational materials than English-speaking patients. Spanish-speaking patients were also significantly more likely to report "no comprehension" of their prescriptions (22 percent versus 3 percent in the English group).

This study suggests that some potentially important aspects of diabetes care differ based on both patients' and doctors' ability to speak the same language. [Key Words: Comparison study, Comprehension, Diabetes, Language concordance, Medication, Outcomes (measured); Primary care; Spanish; Colorado]

73. Launer J. Taking medical histories through interpreters: Practice in a Nigerian outpatient department. British Medical Journal. 1978:934-935.

This is a descriptive study of ad hoc interpreting that uses excerpts from clinical encounters to illustrate the potential pitfalls of interpreting. The author audiotaped encounters between 30 Hausa outpatients and four English-speaking physicians, conducted with the assistance of seven bilingual medical orderlies. None of the orderlies had received training in medical interpreting. The encounters were translated into English, transcribed and analyzed for accuracy. Examples are presented that illustrate paraphrasing, misinterpreting, exclusion of vital information and condensation. The author makes recommendations regarding the training and use of interpreters, as well as the need to have dedicated interpreters and an ongoing system of quality assurance that includes assessments by native-speaking doctors, language tests, and recorded encounters.

The use of untrained, ad hoc interpreters can lead to distortions in the information obtained from the clinical interview. [Key Words: Ad hoc interpreting, Communication analysis, Qualitative study; Primary care; Hausa; Nigeria]

74. Lawrenson R, Leydon G, Freeman G, et al. Are we providing for ethnic diversity in accident & emergency (A & E) departments? Ethnicity & Health. 1998;3:117-123.

This study reviewed the practices of primary care sites in the North Thames region of England with regards to data collection on race, recruitment of diverse staff, and interpreter services provided. The investigators interviewed 22 staff member from across the 15 sites. Fifteen of the 17 interviewees reported that interpreting services were available at their site if necessary. All units had staff who were willing to act as interpreters when available and all had access to 'Language Line.' Six interviewees reported difficulty accessing interpreters when needed and a majority reported that language line was often not suitable for patients' and providers' needs.

Access to adequate interpretation is limited in the North Thames region of England. [Key Words: Institutional policy, Interpreter practice, Need; Primary care; LEP; England]

75. Lee ED, Rosenberg CR, Sixsmith DM, Pang D, Abularrage J. Does a physician-patient language difference increase the probability of hospital admission? Academic Emergency Medicine. 1998;5(1):86-89.

The hypothesis of this study was that the presence of a language barrier in the emergency department, defined as a physician-patient language disparity, would increase the probability of a patient's admission to the hospital. Adult and pediatric patients registered to be seen at a Queens, New York, hospital participated in the study. In the adult group there were 498 language-matched encounters and 155 language-disparate encounters; in the pediatric group there were 32 language-matched encounters and 47 language-disparate encounters. Among the language-disparate encounters, 52 percent had an ad hoc interpreter, including family members or friends, emergency medical technicians, hospital staff, and physicians. In multivariate analysis of the adult data, controlling for patient acuity level, age and the presence of an interpreter, language disparity was found to significantly increase the relative risk of admission by 70 percent. While not statistically significant, the presence of an interpreter decreased the relative risk of admission. There were no differences in hospital admission by language status or interpreter use in the pediatric group.

This study indicates that language barriers in the emergency department setting may increase hospitalization and resource utilization. [Key Words: Ad hoc interpreting, Utilization; Emergency medicine; LEP; New York]

76. Lee LJ, Batal HA, Maselli JH, Kutner JS. Effect of Spanish interpretation method on patient satisfaction in an urban walk-in clinic. Journal of General Internal Medicine. 2002;17:640-645.

This study was designed to assess the effect of Spanish interpretation method on satisfaction with care. Two hundred thirty-three English-speaking and 303 Spanish-speaking patients completed satisfaction questionnaires at the end of their visit to a walk-in clinic. The clinic's triage nurse classified patients' English language ability. Spanish-speaking visits were grouped as language concordant (both patient and doctor spoke Spanish; 42 percent) or as interpreted via telephone (19 percent), family interpreter (23 percent), or other ad hoc interpreter (16 percent). Patients using the telephonic interpreting service reported overall visit satisfaction identical to that of language-concordant patients (both 77 percent). In multivariate analyses, patients receiving interpretation via family members or other ad hoc interpreters were, overall, significantly less satisfied than the language-concordant encounters (54 percent and 49 percent vs. 77 percent, respectively). Language-concordant patients were as satisfied with their physicians'

communication as English-speaking patients. In multivariate analyses, patients using family interpreters were significantly less satisfied than language-concordant patients with provider listening (62 percent vs. 85 percent), discussion of sensitive issues (60 percent vs. 76 percent) and manner (62 percent vs. 89 percent). Patients receiving ad hoc interpretation were also significantly less satisfied than language-concordant patients with provider listening (54 percent vs. 85 percent), physician answers (57 percent vs. 84 percent), explanations (57 percent vs. 84 percent), support (63 percent vs. 84 percent), skills (60 percent vs. 83 percent) and manner (71 percent vs. 89 percent).

Patient satisfaction with visit and physician characteristics varies with method of Spanish interpretation, with professional interpretation resulting in the highest satisfaction. [Key Words: Comparison study, Interpreting practices, Language concordance, Patient satisfaction; Primary care; Spanish; Colorado.]

77. Leman P. Interpreter use in an inner city accident and emergency department. Journal of Accident and Emergency Medicine. 1997;14:98-100.

This survey of physicians sought to determine the extent of communication problems for patients whose primary language was not English presenting to an accident and emergency department in London, England. Doctors were asked to provide demographic information about patients and (ad hoc) interpreters and assess whether communication could have been improved by additional interpreter services. Surveys were filled out for 606 of the 977 adult outpatients who presented over the course of one week. Of this number, 17 percent of patients spoke a primary language other than English, representing 32 different languages. Nine percent of the study population were British citizens with poor or no English ability. Of the 28 cases where an interpreter was present, the treating doctor reported the consultation could have been improved through additional interpreter services in 11 cases. In five cases, the doctor felt interpreter services were required but none were available. Doctors indirectly rated interpreters by their requests for additional interpreting. Employees and bilingual health workers were considered poor interpreters while relatives and friends, the commonest source of interpreters in the department, were considered to have performed well. Only in 15 percent of cases where family or friends interpreted did the doctor feel additional interpreter services were required. However, there was no attempt to objectively confirm or disprove the accuracy of these perceptions. Consultations with non-English speakers with an English ability other than "good" were felt to have been prolonged due to language difficulties by a mean of 9.92 minutes. The use of telephonic interpreters was recommended as a way to meet the 24/7 needs of an emergency department.

Despite the relatively high prevalence of limited English speakers who presented to this emergency department, doctors relied on a variety of ad hoc interpreters, most commonly family members and friends. [Key Words: Ad hoc interpreting, Duration, Interpreter preference, Need; Emergency medicine; LEP; England]

78. Leman P, Williams DJ. Questionnaire survey of interpreter use in accident and emergency departments in the UK. Journal of Accident and Emergency Medicine. 1999; 16:271-274.

This study was designed to assess the most common languages encountered, current methods of language assistance and support for a national telephone interpreter service among accident and emergency departments across the United Kingdom. A survey was sent to 255 accident and emergency departments, with an overall response rate of 77.3 percent. Nearly 44 percent of the responding departments had used some form of interpreter in the preceding seven days, with 38 different languages identified, the most common of which were French, Urdu and German. The responding departments used a variety of methods for interpreting: 87.6 percent used bilingual medical and nursing staff, 86 percent used patients'

relatives and friends, 58.1 percent used non-medical bilingual staff, 56.5 percent used translation cards or books, 46.2 percent used professional in-person interpreters and 17.7 percent used a local telephone interpreting service. Among those departments that used professional in-person interpreters, 89.5 percent had difficulty in obtaining an interpreter in less than two hours, and 88.4 percent had difficulty in obtaining an interpreter after hours. Overall, 66.7 percent of responding departments supported the concept of a national telephone interpreter service, while 19.4 percent did not support it.

This survey documented widespread need for interpreting services and substantial support for a national telephone interpreter service as a timely way to meet that need. [Key Words: Interpreting practices; Emergency medicine; LEP; England]

79. LeSon S, Gershwin ME. Risk factors for asthmatic patients requiring intubation. I. Observations in children. Journal of Asthma. 1995;32(4):285-294.

This was a retrospective chart review designed to determine risk factors for intubation among children with asthma. Sociodemographic and clinical data were collected for all children with asthma aged 5-12, excluding patients with cystic fibrosis, who were admitted over a 10-year period to the University of California, Davis Medical Center. A total of 300 cases were identified, including 166 black, 70 white, 49 Hispanic, 14 Asian, and one Native American child. Patients were categorized as having mild, moderate, or severe asthma according to National Heart, Lung, and Blood Institute guidelines. "Language barrier" was defined as the lack of ability to speak English, but the authors did not describe how this was determined. Fisher's exact, Chi-square and covariance tests were used for analysis. Presence of a language barrier was found to be a significant risk factor, associated with a three-fold increased risk of intubation.

Language barriers may be an important risk factor for intubation in asthmatic children. [Key Words: Asthma, Outcomes (measured); Pediatrics; LEP; California]

80. LeSon S, Eric GM. Risk factors for asthmatic patients requiring intubation. II. Observations in teenagers. Journal of Asthma. 1995;32(5):379-389.

Researchers retrospectively examined data collected at the University of California, Davis Medical Center over a 10-year period to determine risk factors for intubation in asthmatic teenagers. A total of 143 asthma admissions were reviewed and analyzed using chi-square tests and tests of covariance to evaluate the significance of several variables, including language as a barrier to care. "Language barrier," or inability to speak English, was found to be the fifth most significant risk factor, seen in 40 percent of the intubated group but only 8 percent of the non-intubated group. The authors suggest that presence of a language barrier is a factor predictive of asthma mortality, since it was also a risk factor for poor health status and a barrier to care. In comparison, the highest risk factor, "smoking/secondhand smoke exposure" was found in 80 percent of the intubated group and 16 percent of the non-intubated group.

Language barriers may be an important risk factor for intubation in asthmatic teens. [Key Words: Asthma, Outcomes (measured); Pediatrics; LEP; California]

81. Li P-L, Logan S, Yee L, Ng S. Barriers to meeting the mental health needs of the Chinese community. Journal of Public Health Medicine. 1999;21(1):74-80.

This study was designed to identify barriers to accessing mental health services for people of Chinese background in England. Study participants were recruited from six cities, selected on the basis of a large

resident Chinese population of over 2,000 people and/or the presence of an active Chinese community center. Individuals attending the centers were invited to fill in a questionnaire, developed to identify current, non-psychotic mental health disorders in community settings. Individuals scoring above a set level were invited to participate in a semi-structured interview, which obtained information on socio-economic status, characteristics and perceptions of mental health disorders; impact on the affected individual, family, friends and co-workers; sources of help, support and treatments; barriers preventing access to care; knowledge of mental health services; and mental health experiences. Responses to the interview were analyzed for themes using an interpretive approach. A total of 401 individuals completed the initial survey; 86 exhibited signs of mental health problems and 71 agreed to be interviewed. Of the 40 seeking help from their general practitioner, 14 did not know their diagnosis or perceived their problem to be physical rather than psychiatric. Nearly three-quarters (n=52) of interviewees had encountered difficulties with seeking help and most often attributed their difficulty to language barriers and lack of access to bilingual health professionals. Over three-quarters (n=55) needed an interpreter nearly all the time or at least for medical exchanges, while 22.5 percent did not need an interpreter, either because they spoke English or the provider spoke Chinese. Additional issues identified by the interviewees included difficulty or the inability to obtain an interpreter; two participants voiced concerns about the interpreter's ability to maintain confidentiality in the community.

Language and lack of access to interpreters and bilingual staff may be major barriers to accessing mental health services. [Key Words: Access barrier, Need, Qualitative study; Mental health; Chinese; England]

82. Liao X, McIlwaine G. The health status and health needs of Chinese population in Glasgow. Scottish Medical Journal. 1995;40:77-80.

This is a survey study of the health problems and health needs of the Chinese population in Glasgow, Scotland. Nearly 500 Chinese, aged 12 to 85 years, responded to the survey (61.6 percent response rate). Two-thirds of the respondents could not "speak or [spoke] a little," or "read or read a little" English. Language barriers were found to be a major problem for this population. Fifty-nine percent of respondents stated they would like to have an interpreter for medical visits. Seventy-five percent used family or friends as interpreters, with only 18.5 percent using the government interpreter services. When asked about treatment preferences, 21 percent preferred traditional Chinese medicine, in some cases citing language problems as the reason for this preference. Chinese women in the study were less likely to have had cervical cancer screening (59 percent vs. 70 percent) and breast cancer screening (18 percent vs. 66 percent) when compared to Glasgow women, and reported "language problems" as a main reason they did not receive these services. Twenty-three percent of respondents had suggestions for improving care. Of the five major suggestions, two referred to provision of care in their language or with the assistance of interpreters.

Language difficulties are a significant barrier to care for Chinese speakers in Scotland. [Key Words: Access barrier, Need, Prevention; Chinese; Scotland]

83. Lipton RB, Losey LM, Giachello A, Mendez J, Girotti MH. Attitudes and issues in treating Latino patients with Type 2 diabetes: Views of health care providers. The Diabetes Educator. 1998;24(1):67-71.

This study involved focus group discussions with 24 health care practitioners from Chicago area primary care facilities in three distinct Latino neighborhoods, regarding their perceptions of barriers facing Latino patients with type 2 diabetes. None of the focus groups included Latino patients themselves. Practitioners served three distinct groups of Latinos: inner city Mexican-Americans, Puerto Rican-Americans or

suburban Mexican-Americans. Thirteen providers described themselves as Latinos; the rest were non-Hispanic whites and Asian-Americans. There were 10 physicians, seven nurses, of whom four were certified diabetes educators, and seven dieticians or physical therapists. Focus groups were structured to address four categories of questions: the extent of the problem, demographic and cultural issues contributing to patient adherence, training and practices which might influence provider behavior, and recommendations and comments from participants. Identified barriers included low literacy levels and lack of proficiency in English, as well as cultural, and to a lesser degree, financial and legal barriers to appropriate diabetes treatment. Inner city practitioners mentioned that their Latino patients sometimes displayed such reverential respect for the provider that they did not ask questions; women in particular may view their diabetes treatment as secondary to family needs. Diabetes educators recommended more bilingual personnel, while physicians thought there was a lack of Spanish language educational materials, and that those available did not sufficiently incorporate Spanish idioms and expressions.

Latino patients with diabetes face multiple barriers to care, some of which could be addressed through increased numbers of bilingual personnel or improved health education materials. [Key Words: Access barrier, Acculturation, Diabetes, Literacy, Qualitative study; Primary care; Spanish; Illinois]

84. LoGiudice D, Hassett A, Cook R, Flicker L, Ames D. Equity of access to a memory clinic in Melbourne? Non-English speaking background attenders are more severely demented and have increased rates of psychiatric disorders. International Journal of Geriatric Psychiatry. 2001;16:327-334.

The purpose of this research was to compare demographic and clinical features of patients from non-English-speaking backgrounds (NESB) with those who were from English-speaking backgrounds (ESB) and to determine if there was a difference in equity of access to a memory clinic in Melbourne, Australia. It is not clear how the authors defined non-English-speaking. Chart reviews were conducted on 556 consecutive patients. In univariate analyses, NESB patients were found to be under-represented in the clinic. Compared to ESB (n=148), NESB (n=408) were significantly younger, had fewer years of education and had lower cognitive scores. Compared to ESB patients, NESB patients were significantly more likely to present with a functional psychiatric disorder (particularly depression), and be classified as having normal cognition. When NESB did present with dementia, they were significantly more likely to be more severely demented and present at a later stage of disease.

Differences in cognitive function, psychiatric disorders and stage of presentation may be due to cultural barriers, language barriers or a combination of both. [Key Words: Access barrier, Comparison study, Outcomes (measured); Neurology; LEP; Australia]

85. Madhok R, Bhopal RS, Ramaiah RS. Quality of hospital service: A study comparing 'Asian' and 'non-Asian' patients in Middlesborough. Journal of Public Health Medicine. 1992; 14: 271-279.

This study was undertaken in England with the objective of comparing Asian and non-Asian patients' experience and satisfaction with the non-clinical aspects of their hospital care. Asian patients were defined as "British residents, and their descendents, originating from India, Pakistan, and Bangladesh" and identified for participation by one of the leaders of the study and the "ethnic minority health coordinator." Fifty-two Asian and 52 matched non-Asian patients were interviewed in their primary language, at home, at a mean interval of 21days after discharge from one of two district hospitals. Asian patients reported being dissatisfied with the written and verbal communication they received about the hospital and its procedures.

Only two Asian patients had received written information in their own language and more that 40 percent reported difficulty communicating with health care professionals. However, these numbers were very similar to those reported by non-Asian patients. A family member or staff member interpreted for 95 percent of these Asian patients reporting communication difficulties and 95 percent of those who had a family member or staff member interpret reported dissatisfaction with these interpretation arrangements.

Asian patients in England are at risk for communication difficulties which may be due to poor access to trained interpreters. [Key words: Comparison study, Interpreting practices, Need, Patient satisfaction; Asian languages; England]

86. Manson A. Language concordance as a determinant of patience compliance and emergency room use in patients with asthma. Medical Care. 1988;26(12):1119-1128.

This was a retrospective chart review study of 96 Spanish-speaking asthmatics cared for in an internal medicine group practice in New York. The hypothesis was that if these patients had a Spanish-speaking doctor (language-concordant relationship; n=65), they would have better treatment compliance and outcomes, and would be less like to use the emergency department or to be hospitalized. Patients were defined as Spanish-speaking if a physician had noted them to be monolingual in their charts. Both language-concordant and language-discordant patients had a mean length of follow-up of more than two years. Analyses were controlled for this as well as numerous sociodemographic factors and severity of disease. Patients in language-discordant relationships were slightly more likely to omit medication, to miss appointments, and to make an emergency room visit. In subgroup analyses, patients with eight or more office visits and language-discordant physicians were 3.24 times more likely to be non-compliant with medication and 3.06 times more likely to miss an appointment when compared to patients with language-concordant physicians. Both of these results were statistically significant.

Patient adherence to care may be associated with language concordance. [Key Words: Adherence, Asthma, Language concordance, Medication, Outcomes (measured), Utilization; Primary care; Spanish; New York]

87. Marcos LR. Effects of interpreters on the evaluation of psychopathology in non-English-speaking patients. American Journal of Psychiatry. 1979;136:171-174.

This qualitative study, conducted at two New York City psychiatric hospitals, presents data from unstructured discussions with psychiatrists and ad hoc interpreters as well as content analysis of interpreter-mediated psychiatric interviews to identify clinically relevant interpreter-related distortions. The ad hoc interpreters included bilingual hospital staff and patients' relatives. Themes that emerged from the discussions included ad hoc interpreters' feeling overwhelmed or imposed upon by the responsibility of interpreting, as well as embarrassment or anxiety at interpreting personal questions. The psychiatrists expressed concern about possible interpreter bias, sufficient linguistic competence in two languages, lack of knowledge of clinical psychiatry and the lack of objectivity when using family or friends. Eight clinical encounters, conducted in Cantonese, Toisanese and Spanish, were audiotaped, translated and analyzed. The distortions identified included omissions, condensations, substitutions, additions and normalization of content. The authors recommend that clinicians and interpreters engage in a pre-session to discuss the goals of the encounter, ensure linguistic competence in two languages, and reinforce the concepts of objectivity and confidentiality.

The use of untrained, ad hoc interpreters can lead to distortions in the information obtained from the clinical interview. [Key Words: Ad hoc interpreting, Interpreter preference, Communication analysis, Qualitative study; Mental health; Chinese, Spanish; New York]

88. Marin BVO, Marin G, Padilla A, de la Rocha C. Utilization of traditional and non-traditional sources of health among Hispanics. Hispanic Journal of Behavioural Sciences. 1983;5(1):65-80.

This study of Hispanic health care practices and utilization used closed- and open-ended Spanish-language interview questions with 100 adult Hispanics while they waited for care at a neighborhood clinic in Los Angeles over the course of one week. Fifty-six percent of the interview subjects earned $500 or less per month; 52 percent had a seventh-grade education or less; 23 percent were working only part-time; 17 percent were unemployed; and 7 percent were receiving public aid. Respondents reported low use of most sources of care: 25 percent had never been to a dentist, 57 percent had never been to an optometrist, and 51 percent had never been to a private physician, while 55 percent had been to a hospital emergency room at some time. Twenty percent of interviewees had been massaged by a sobad (folk healer) or as a means of healing a bone or muscle injury, 12 percent (all women) had seen a partera (midwife), 10 percent had consulted an yerbero/botanica (an herbalist), and 9 percent had consulted a curandero (folk healer). Inadequate use of health services was attributed most frequently to financial difficulties (62 percent); language difficulties were identified (8 percent) along with a number of other concerns. When asked to rate various reasons for not seeking health care, respondents ranked "not speaking English" 5th in importance, behind poverty and lack of medical insurance, while "doctors and nurses not speaking Spanish" ranked 8th. Twenty percent of the respondents indicated they had had a problem in a medical encounter because they could not speak English well. This article is one of the earliest to examine barriers to obtaining health care services in underrepresented populations.

In this early study, language barriers were one of several barriers to care, and ranked behind poverty and lack of medical insurance in importance. [Key Words: Access barrier, Insurance, Utilization; Spanish; California]

89. Marks G, Solis J, Richardson JL, Collins LM, Birba L, Hisserich JC. Health behavior of elderly Hispanic women: Does cultural assimilation make a difference? American Journal of Public Health. 1987;77(10):1315-1319.

This study sought to determine the effects of acculturation on the health behavior of Hispanic women living in publicly subsidized housing projects for the elderly in the Los Angeles area. Six hundred and three women were interviewed by bilingual, middle-aged women of unstated ethnic background, social class or language fluency. Seventy-nine percent of interviews were in Spanish. The median age for participants was 71 years; 50 percent were widowed, 30 percent single or divorced and 18 percent married. Mean annual income was $5,772 and mean education was six years; 14 percent had no formal education. Ninety percent were not working; 67 percent had previously worked as laborers or service workers, and 23 percent were homemakers with no outside employment. An "assimilation scale" with questions about language familiarity and usage, ethnic interaction, ethnic pride and identity, cultural heritage, and generational proximity was used to categorize participants as having either a low or high assimilation level. Participants were also asked about preventive health behaviors, including breast and cervical cancer screening use. Of the various dimensions of assimilation, English language was most closely associated with health practices. After controlling for age and education, women who were less assimilated were less likely to have had breast or cervical cancer screening, and were significantly more likely to report they had never had a mammogram or pap smear.

For poor, elderly Latinas in this study, English language proficiency was correlated with the likelihood of cancer screening. [Key Words: Access barrier, Acculturation, Outcomes (patient reported), Prevention, Utilization; Gerontology; Spanish; California]

90. Mazor SS, Hampers LC, Chande VT, Krug SE. Teaching Spanish to pediatric emergency physicians. Archives of Pediatric Adolescent Medicine. 2002;156:693-695.

The goal of this study was to determine whether a course of instruction in medical Spanish for pediatric emergency department residents could increase patient satisfaction for Spanish-speaking-only families. Nine residents completed the 10-week, two-hour weekly medical Spanish course. Testing with scripted clinical scenarios was used to establish that the residents could communicate with Spanish-speaking-only families. The impact of the program was measured by comparing pre-intervention (n=85) and post-intervention (n=58) satisfaction questionnaires completed by Spanish-speaking-only families after being seen by one of the trained residents. After the intervention, families were significantly more likely to strongly agree that the doctor was concerned about their child, was respectful, listened to what they said and made them feel comfortable. After the intervention, physicians were also significantly less likely to use a professional interpreter. There was no attempt to measure pre- and post-instruction accuracy of physician communication. The total cost of the course was $2,000. While the authors view the result of reduced interpreter use as allowing "a limited resource to be more efficiently allocated," it is possible that care was compromised by physicians using limited-Spanish language skills rather than utilizing a fluent interpreter.

This Spanish language educational intervention improved patient satisfaction and reduced utilization of interpreter services. [Key Words: Cost, Educational intervention, Patient satisfaction; Emergency medicine; Spanish; Illinois]

91. Mirza T, Kovacs TG, McDonald P. The use of family planning services by non-English speaking background (NESB) women. Australia and New Zealand Journal of Obstetrics and Gynaecology. 1999;39(3):341-343.

This survey research was undertaken to determine the proportion of family planning organization clients with Limited English Proficiency (LEP) in the eight territorial states of Australia, and how service utilization varied with language. The investigators analyzed 185,879 clinic data sheets for patients who had visited the family planning organizations over a two year period. Patients were identified as having LEP if they responded yes to the question, "Do you speak a language at home other than English?" Fourteen percent answered yes. Women with LEP were significantly less likely to use the combined pill and injectable contraceptive methods, but were more than three times as likely to use an intrauterine contraceptive device. In addition, patients with LEP were less likely to utilize counseling services for sexually transmitted disease, sexual problems, or pregnancy, but more likely to seek counseling for subfertility. The authors suggest that these differences may be attributable to language difficulties, but other possibilities such as patient preference, socioeconomic factors, demographic differences, and insurance coverage were not explored.

Language may be a barrier to accessing family planning services in Australia. [Key Words: Utilization; Obstetrics and gynecology; LEP; Australia]

92. Mitchell P, Malak A, Small D. Bilingual professionals in community mental health services. Australian and New Zealand Journal of Psychiatry. 1998;32:424-433.

This is a qualitative study done in Australia to identify and describe the roles of bilingual mental health workers and the factors that facilitate and inhibit these roles. Content analysis was performed of transcripts from 56 open-ended, semi-structured interviews with bilingual health professionals, team leaders in community mental health services, and various staff responsible for cultural diversity policy and service development. The respondents often felt that their clientele had greater needs than those of their non-

bilingual counterparts. In addition to direct clinical service provision, they felt that in order to serve their clients, they also needed to participate in culturally and linguistically appropriate mental health promotion and community development, provision of training and consulting in cross-cultural issues and service development at an organizational level. Bilingual providers expressed sentiments that these non-clinical activities were underdeveloped, and cited insufficient time to balance normal caseloads with development of community and organizational programs.

This article points out that bilingual providers may need to or be asked to do more in order to meet the needs of their clients above and beyond providing linguistic access to health services. [Key Words: Interpreter role, Language concordance, Qualitative study; Mental health; LEP; Australia]

93. Morales LS, Cunningham WE, Brown JA, Liu H, Hays RD. Are Latinos less satisfied with communication by health care providers? Journal of General Internal Medicine. 1999;14:409-417.

This study was designed to examine the associations among patient ratings of health care provider communication, patient ethnicity (Latino vs. white), and language (English vs. Spanish). Data was obtained from a random sample of patients receiving medical care from a physician association located primarily in the Western United States. Patients who were at least 18 years of age and had at least one provider visit in the preceding year were mailed both Spanish and English versions of a questionnaire, which included questions on ratings of care such as communication, utilization and health status. Patient perception of provider communication was measured, including assessments of medical staff listening, answers to questions, explanations about medical tests, explanations about prescribed medications, and reassurance and support. The analysis included 6,211 surveys. After controlling for demographic, socioeconomic and health status variables, Spanish-responding Latinos had significantly lower ratings of provider communication across all measures than English-responding Latinos and non-Latino whites. English-responding Latinos were somewhat more dissatisfied with provider communication than non-Latino whites, but this finding did not reach statistical significance.

In this study, language appears to be an independent predictor, separate from ethnicity, of patient dissatisfaction among Latinos. [Key Words: Comparison study, Medication, Patient satisfaction; Primary care; Spanish; United States]

94. Naish J, Brown J, Denton B. Intercultural consultations: Investigation of factors that deter non-English-speaking women from attending their general practitioners for cervical screening. British Medical Journal. 1994;309(6962):1126-1128.

Focus groups were conducted to identify factors that deterred women from six different linguistic/ethnic communities (Bengali, Chinese, Kurdish, Punjabi, Turkish and Urdu) from visiting their general practitioner for cervical cancer screenings. Approximately 85 women were recruited through posters and personal invitations in East London, England. Information collected from these 90-minute, in-language sessions revealed that for most women, preferred sources of information included friends, relatives, health advocates or their doctor. Translated written material was difficult to understand and often unobtainable. Other potential barriers included general anxieties about discomfort and concern for the standard of hygiene during cervical cancer screening and gender preferences (most women preferred female physicians). Language barriers emerged from the focus group discussions as a barrier to screening, but the women were generally enthusiastic about cervical cancer screenings, once they understood the purpose of the procedure.

In this study, language is one of several identified barriers to cervical cancer screening, none of which are insurmountable. [Key Words: Access barrier, Prevention, Qualitative survey; Primary care; LEP; England]

95. Ngo-Metzger Q,. Massagli M, Clarridge BR, et al. Linguistic and Cultural Barriers to Care: Perspectives of Chinese and Vietnamese immigrants. Journal of General Internal Medicine. 2003; 18: 44-52.

This focus group study was conducted with Chinese and Vietnamese patients cared for at a community health center with the objective of understanding the factors patients believe contribute to quality care. Participants were included in the study if they were Chinese or Vietnamese in origin, spoke Mandarin, Cantonese or Vietnamese as their primary language, and were seen by a provider at the health center at least once in the previous 12 months. Twelve focus groups were conducted in Mandarin, Cantonese and Vietnamese. The discussions were videotaped, transcribed, coded and analyzed to identify common themes across the groups. Three themes related to the quality of interpreter services were reported. First, patients preferred trained interpreters rather than their own family members. They were especially concerned about using their children as interpreters, which interferes with traditional Asian family dynamics and elder respect. Second, they worried that their symptoms were not being interpreted accurately. Finally, they emphasized the need for same-sex interpreters when dealing with sensitive issues and having the interpreters be respectful of patients.

Chinese and Vietnamese-speaking patients prefer communicating through professional interpreters who accurately and respectfully interpret their symptoms. [Key Words: Ad hoc interpreting, Interpreter preference, Qualitative study; Primary care; Chinese, Vietnamese; Massachusetts]

96. Padgett R, Barrus A. Registered nurses' perceptions of their communication with Spanish speaking migrant farmworkers in North Carolina: An exploratory study. Public Health Nursing. 1992;9(3):193-199.

This was a survey study of registered nurses at 12 North Carolina health care agencies that served Spanish-speaking migrant farm workers. The survey asked about communication issues with non-English-speaking clients, including methods of communication, problem areas, potential solutions to the problems and initiatives the nurses were taking to improve their own communication with this target population. Fifty-five of 72 nurses returned the survey. A large majority (75 percent) felt they had moderate to severe problems providing care to these patients due to language barriers. More than 73 percent relied on family, friends and other unpaid, untrained interpreters to communicate with patients. When asked about solutions, more than 78 percent said that learning the language was the solution, but only 38.5 percent were working to improve their Spanish language skills. A large number (49 percent) also thought their agencies should hire interpreters.

This study suggests that substantial language barriers to health care exist for migrant farm workers in the rural United States. [Key Words: Ad hoc interpreting, Need; Spanish; North Carolina]

97. Parsons L, Day S. Improving obstetric outcomes in ethnic minorities: An evaluation of health advocacy in Hackney. Journal of Public Health Medicine. 1992;14(2):183-191.

This study was designed to evaluate the impact of a bilingual patient advocate intervention on obstetric outcomes. Patient advocates served as interpreters for patients who did not speak English, in addition to following them throughout their pregnancy, accompanying them to each visit, and "mediating" between

patients and health care professionals. It is not clear whether the patient advocates were trained in interpreting. Patients' spoken language was identified from the chart. Outcomes for patients in the advocacy group (n=923) were compared to outcomes for patients delivering at the same hospital prior to the intervention (n=866) and patients delivering at another hospital during the same two time periods (before and after the intervention; n=1303). There were significant differences between the advocacy groupand the other two groups in length of stay, onset of labor and mode of delivery. Length of stay, likelihood of induced labor and Cesarean section rate were lower in the advocacy group.

Interpretation coupled with patient advocacy can improve delivery of obstetric care. [Key Words: Comparison study, Efficacy, Interpreter role, Outcomes (measured), Utilization; Obstetrics and gynecology; LEP; England]

98. Perez-Stable EJ, Napoles-Springer A, Miramontes JM. The effects of ethnicity and language on medical outcomes of patients with hypertension or diabetes. Medical Care. 1997;35:1212-1219.

This study was designed to determine the effects of ethnicity and patient-provider language concordance on patient satisfaction and health status. A random sample of patients from an urban adult outpatient clinic in San Francisco selected those who: 1) had a diagnosis of hypertension or diabetes; 2) had been seen at least once during the study period; and 3) were Latino or non-Latino white. Ethnicity was confirmed by self-identification. A questionnaire was administered in English or Spanish that asked about physical functioning, psychological well-being, pain scales, health perceptions, general satisfaction with health care, and general demographic data. Latino patients who completed the questionnaire in Spanish were categorized as predominantly Spanish speaking. Clinicians were categorized as Spanish speaking if they self-reported good or excellent understanding/ability to speak Spanish and used Spanish at least four times a week during clinic. A blinded chart review was performed for active medical problems, prescribed medications, clinic and ED visits, hospitalizations and indicators of blood pressure and diabetes control. Multivariate analysis showed that Spanish-speaking patients with language-concordant physicians reported better well-being and functioning across all four scales used. Patient satisfaction was not associated with ethnicity or language concordance.

Patient-physician language concordance may result in improved patient-reported health status. [Key Words: Comparison study, Language concordance, Outcomes (measured), Outcomes (patient reported), Patient satisfaction, Utilization; Primary care; Spanish; California]

99. Pitkin Derose K, Baker DW. Limited English proficiency and Latinos' use of physician services. Medical Care Research and Review. 2000;57(1):76-91.

This research was conducted to answer the question, "Do Latino patients with limited English proficiency use fewer physician services than patients who speak English fluently, controlling for other factors?" The authors collected data about recent use of health care, insurance, and usual source of care, among other topics, from 465 Spanish-speaking Latinos and 259 English speakers who presented to a public hospital emergency department in Los Angeles, California. They divided the Spanish-speaking Latinos into three groups according to their English fluency – "good" to "excellent," "fair" and "poor" English – and compared these three groups to non-Latino English speakers. In multivariate analyses, there were no significant differences among the groups in the number who reported no physician visit in the past three months. However, among patients who saw a physician at least once, Latinos with fair or poor English proficiency reported significantly fewer (22 percent fewer) physician visits than non-Latino English speakers.

This study suggests that language may be the most important determinant of disparities in access to care between Hispanic and white, non-Hispanic populations. [Key Words: Access barrier, Comparison study, Utilization; Emergency medicine, Primary care; Spanish; California]

100. Pitkin Derose K, Hays RD, McCaffrey DF, Baker DW. Does physician gender affect satisfaction of men and women visiting the emergency department? Journal of General Internal Medicine. 2001;16:218-226.

The objective of this study was to assess the association of physician gender with patient ratings of physician care. English-speaking and Spanish-speaking patients were enrolled in the study while waiting to be seen in a large emergency department in Los Angeles. One week later, they were interviewed about their satisfaction with the interpersonal aspects of care provided during that visit. To control for varying degrees of English-proficiency, the final sample of patients was divided into four distinct groups: native English-speakers, Spanish-speakers with a language concordant provider, Spanish-speakers who used an interpreter and Spanish-speakers who did not use an interpreter but felt one should have been called. Research assistants classified patients as Spanish-speaking by asking them what language they were most comfortable with. More than 80 percent of the interpreters used were ad hoc interpreters. Spanish-speaking women who did not have an interpreter but needed one were significantly less satisfied than native English-speakers on all seven measures of patient satisfaction with interpersonal aspects of care. Spanish-speaking men who did not have an interpreter but needed one were significantly less satisfied with physician friendliness, respectfulness, expression of concern, efforts to make them feel comfortable and overall performance when compared to English-speaking men. In addition, Spanish-speaking men who had interpreters were also significantly less satisfied than English-speaking men in multiple measures of satisfaction with physician care; there was no difference between women who had interpreters and English-speaking women.

Interpreter use and physician language proficiency may affect patients' satisfaction with physicians slightly differently, depending on patient gender. [Key words: Ad hoc interpreting, Comparison study, Patient satisfaction; Emergency medicine; Spanish; California]

101. Pöchhacker F. Language barriers in Vienna hospitals. Ethnicity and Health. 2000;5(2):113-119.

This study was a self-administered survey of practitioners in 12 Vienna, Austria, hospitals, designed to examine the state of communication practices with non-German-speaking (NGS) patients. Respondents included doctors (n=184), nurses (n=204), and therapists (n=120). Specific questions included: "what is the share and frequency of NGS patients?" "what language communities do they belong to?" "what are the modes of communication?" "are health care providers satisfied with the current communication practices?" and "what is the most suitable arrangement for overcoming language barriers?" While 95 percent of respondents confirmed they interacted directly with NGS patients, 91 percent were "not sure how much patients really understand." Communication was largely assisted by ad hoc interpreters. Sixty percent of respondents reported "often" or "nearly always" using persons accompanying the patient, usually children, and 53 percent reported using bilingual hospital staff, usually cleaners or nursing staff, with the use of interpreters called in from outside the hospital "a rare exception." This situation led to 47 percent of the respondents indicating they were "not satisfied" with current practices. A hospital interpreting service was clearly rated as the best option for overcoming communication barriers, followed by continuing to use family members, bilingual staff, foreign language providers, external on-call interpreters and lastly, telephone interpreters.

Clinicians in this Austrian hospital encounter language barriers relatively frequently, but rely primarily on ad hoc interpreting, including children, for language assistance. [Key Words: Ad hoc interpreting, Interpreter preference, Interpreting practices, Utilization; German; Austria]

102. Price CS, Cuellar I. Effects of language and related variables on the expression of psychopathology in Mexican American psychiatric patients. Hispanic Journal of Behavioural Sciences. 1981;3:145-160

This study of 32 bilingual Mexican-American mental health patients investigated the effect of interview language, language fluency and acculturation on the expression of psychopathology. Research subjects were part of an on-going evaluation project at the Bilingual/Bicultural Unit at San Antonio State Hospital. Participants had to have a pre-existing diagnosis of schizophrenia, no evidence of organic brain disorder, no evidence of alcoholism, and fluency in English and Spanish to participate in interviews. The first 32 patients to meet the criteria were selected. Each patient was interviewed in separate English- and Spanish-language videotaped interviews. Patients were given an identical series of interview questions in each language, based on standardized psychiatric and mental health assessment instruments, including the Brief Psychiatric Rating Scale, the vocabulary subtests of the Wechsler Adult Intelligence Scale/the Escala de Inteligencia Wechsler Para Adultos and the Acculturation Rating Scale for Mexican Americans. The videotapes were independently reviewed and rated by 16 bilingual mental health professionals, controlling for inter-rater reliability, memory consistency effects, and rater acculturation bias. There was substantially greater psychopathology expressed by patients in the Spanish interview as compared with the English interview; in analysis of variance, language was found to be a strong, significant source of variance. Regression analysis incorporating acculturation and self-disclosure scores was then performed. English verbal fluency was found to be a significant single predictor of the difference in psychopathology demonstrated by bilingual patients in the two language interviews, while Spanish verbal fluency was not found to be significantly predictive. The variables of verbal fluency, acculturation, and self-disclosure collectively predicted this effect, and acculturation and verbal fluency each acted as single predictors of this effect.

Bilingual Mexican American patients may express greater psychopathology when interviewed in Spanish language interviews than they would express in English language interviews. [Key Words: Acculturation, Outcomes (measured); Mental health; Spanish; Texas]

103. Price J. Foreign language interpreting in psychiatric practice. Australian and New Zealand Journal of Psychiatry. 1975;9;263-267.

This study was undertaken to evaluate the quality of psychiatric interpretation within a hospital. Three doctors and three interpreters were studied. Two of the doctors spoke English and Hindustani and one spoke only English. The three interpreters were orderlies in the hospital who spoke Hindustani as their primary language and English as their second language. One had considerable experience interpreting and two had very limited interpreting exposure; none were trained interpreters. Nine different doctor/interpreter pairs were created for the purpose of encounter analysis. For each pair, at least 100 questions/answers were analyzed for errors in interpretation. Error in this study was defined as an alteration in meaning rather than as a failure to translate word for word. Approximately two-thirds of errors documented in the study were errors in transmission from patient to psychiatrist and the majority of errors were made by two of the three interpreters. This latter finding prompted the investigators to formally test the English-language skills of the orderlies and found that only the third orderly had a proficient command of English. The investigators also examined how the severity of a patient's psychosis affected the interpretation error rate. They found that the interpretation error rate was significantly higher

in encounters with patients with chronic psychosis than in those involving patients with acute psychosis or personality disorders.

Psychiatric interpreting can be negatively affected by interpreters' language fluency and patients' psychosis. [Key Words: Ad hoc interpreting, Communication analysis; Mental health; Hindustani; Australia]

104. Prince D, Nelson M. Teaching Spanish to emergency medicine residents. Academic Emergency Medicine. 1995;2(1):32-37.

The goal of this study was to investigate the effects of teaching medical Spanish to eight first year emergency medicine residents on their subsequent interactions with Spanish-speaking patients. The required course occurred in the first month of residency and included a total of 45 hours of teaching. Half the students had had prior Spanish language training. After the course, 28 physician-patient interactions conducted in Spanish were audiotaped and analyzed for errors in communication. Minor errors (e.g. technically incorrect grammar or vocabulary with generally appropriate patient understanding) were found in more than half the interactions. Major errors (e.g. misunderstanding duration or timing of symptoms) occurred in 14 percent of interactions. Residents who had no Spanish language training prior to entering the class made most of the major errors. While the course was meant to supplement, not replace the use of interpreters, after the class the residents called for an interpreter only 46 percent of the time.

This intervention improved emergency medicine residents' abilities to communicate in Spanish, but they still made errors and were less likely to call an interpreter when they may have been needed. [Key Words: Communication analysis, Educational intervention; Emergency medicine; Spanish; California]

105. Rader GS. Management decisions: Do we really need interpreters? Nursing Management. 1988;19:46-48.

This study was conducted to determine the scope of need, existing practices, and opportunity costs of interpreting in the outpatient clinics at University of California, San Diego Medical Center. For each patient seen over a 20-day period, clinic staff were asked to complete a survey asking whether the patient required an interpreter, for what language, whether the patient brought her/his own interpreter, and if not, who served as an interpreter. A total of 6,731 surveys were completed, with 880 patients requiring an interpreter. The patients who required an interpreter were further divided into Spanish speakers, Indochinese language speakers (Vietnamese, Cambodian, Laotian, Hmong, Chinese) and "Other." Overall, 24 percent of these patients brought their own interpreter, ranging from 15 percent for Spanish speakers to 73 percent for "Other," while 76 percent required the medical center to provide an interpreter. Among the Spanish-speaking patients who required an interpreter, 50 percent had a bilingual nurse or doctor. Staff interpreters were provided for 35 percent of the Spanish speakers who did not bring their own interpreter and 79 percent of the Indochinese language speakers who did not bring their own interpreter. The author estimates the opportunity (salary and time) costs of using a bilingual nurse to perform interpreting and contrasts this with the cost of hiring additional staff interpreters.

This study demonstrates a high level of need for interpreting services, and presents an analysis of current institutional interpreting practices that suggests hiring staff interpreters may be more cost-effective than the common practice of using bilingual nursing and physician staff. [Key Words: Ad hoc interpreting, Cost, Professional interpreters; Primary care; Asian languages, Spanish; California]

106. Raval H. A systemic perspective on working with interpreters. Clinical Child Psychology and Psychiatry. 1996;1(1):29-43.

This study involved a qualitative survey of 12 therapists in a child mental health setting in London, England, about their experience of working with Bangladeshi families in conjunction with an interpreter. The interpreter's experience was also explored and the various roles and relationships systemically analyzed. Therapists discussed how the interpreter enhanced their cultural understanding of the client family and described the interpreter as freeing the families to talk about a greater variety of topics, including religious beliefs, cultural beliefs and racism. Therapists noted that some families found it difficult to discuss legal or employment status in front of an interpreter; some did not trust the interpreter, fearing loss of confidentiality; and some asked the interpreter personal questions. Therapists felt some interpreters had difficulty remaining neutral. Therapists commonly experienced a greater detachment from the family or the therapeutic process when working with an interpreter, with some therapists feeling powerless. A Bangladeshi interpreter agreed with the positive comments but also indicated that topics like pregnancy, childbirth, sex and marital matters were difficult for parents (and the interpreter) to discuss, particularly when there were age, gender or cultural differences with the therapist. The analysis focused on the dyadic relationships among the therapist, interpreter and client triad (with the client usually a parent/teenager dyad). Similar cultural values held by the parent and the interpreter were problematic, setting up an oppositional pairing of the westernized adolescent and therapist. The ability of trained interpreters to remain neutral in the interaction was enhanced if they were seen as part of the multidisciplinary team and given a professional status.

This qualitative study highlights some of the difficulties of the medical interpreter role, particularly in a mental health setting. [Key Words: Acculturation, Efficacy, Interpreter role, Professional interpreting; Mental health; Bangladeshi; England]

107. Reid G, Crofts N, Beyer L. Drug treatment services for ethnic communities in Victoria, Australia: An examination of cultural and institutional barriers. Ethnicity and Health. 2001;6(1):13-26.

This article includes a comprehensive review of qualitative studies undertaken to identify problems in delivering drug treatment to multicultural groups in Australia. The authors conducted and analyzed data from 25 key informant interviews, 15 focus groups, and two informational forums with members of ethnic communities. They found that treatment services are often viewed as culturally insensitive, inflexible and linguistically inaccessible. The study revealed that ethnic groups were largely unaware of the drug treatment services available to them, and that cultural stigma and language difficulties often caused misunderstandings in the low-English-proficiency population that resulted in decreased access. These findings were consistent with the findings from the literature review.

Culturally and linguistically relevant programs, including the use of bilingual workers skilled in drug issues, may be needed to ensure access for ethnic communities. [Key Words: Access barrier, Qualitative study; Mental health; LEP; Australia]

108. Rivadeneyra R, Elderkin-Thompson V, Silver RC, Waitzkin H. Patient centeredness in medical encounters requiring an interpreter. The American Journal of Medicine. 2000. 108:470-474.

The purpose of this study was to investigate whether or not there are differences in communication patterns in interpreted medical encounters compared to those conducted in English. Primary care

encounters with 19 Spanish-speaking patients who required an interpreter and 19 demographically matched, English-speaking patients were videorecorded and coded. Codes included the frequency of patient offers (coded as a symptom, expectation, thought, feeling, prompt or specific cue) and the frequency of physician responses (coded as ignored, closed response, open response and specific facilitation). The interpreters used in the clinic were bilingual, bicultural nurses without any specific interpreter training. In adjusted analyses, English-speaking patients made significantly more offers and were significantly more likely to receive a physician response compared to Spanish-speaking patients. The researchers investigated the possibility that this finding could be related to ethnicity but found that English-speaking Latinos asked significantly more questions than Spanish-speaking Latinos.

Interpreted encounters using untrained interpreters may result in a smaller number of exchanges between physicians and patients. [Key words: Ad hoc interpreting, Communication analysis, Comparison study; Primary care; Spanish; California]

109. Roberts GW. Nurse/patient communication within a bilingual health care setting. British Journal of Nursing. 1994;3(2):60-67.

This article describes an ethnographic study of nurse/patient interactions at a hospital ward in West Wales where English and Welsh are spoken interchangeably. Participant and non-participant observation sessions, as well as formal and informal key informant interviews, were conducted during a 10-week period in which researchers measured the effects of code switching (switching language between sentences by bilinguals) on patient satisfaction and nurse/patient relationships. The article explores, through the use of examples, the five categories of language switching that emerged: 1) establishing a language base the patient felt comfortable with; 2) the influence of a third party speaking only one of the two languages; 3) limited phase switching (e.g. the use of a few terms of endearment in the language of patients by a nurse not normally speaking the language); 4) exclusion; and 5) expression (switching to the mother tongue in order to find the right words for adequate expression). The findings indicated that bilingual nurses used language switching to improve communication with patients.

This article demonstrates how bilingual skills can be effectively used to increase rapport in the clinician-patient encounter. [Key Words: Language concordance, Patient satisfaction, Qualitative study; Welsh; Wales]

110. Sarver J, Baker DW. Effect of language barriers on follow-up appointments after an emergency department visit. Journal of General Internal Medicine. 2000;15:256-264.

The objective of this study was to determine whether patients encountering language barriers during an emergency department visit were less likely to be referred for and to keep follow-up visits. A total of 714 English-speaking and Spanish-speaking patients were enrolled in the study when they presented to an emergency department in Los Angeles. They were interviewed while waiting to be seen and one week after their visit. The sample was divided into three groups: a language concordant group (n=491) in which both provider and physician spoke the same language (English or Spanish), an interpreter group (n=122) in which patients communicated through Spanish interpreters, and an interpreter needed group (n=101) in which Spanish-speaking patients reported that they needed an interpreter but did not receive one. Research assistants classified patients as Spanish-speaking by asking them what language they were most comfortable with. More than 80 percent of interpreters were ad hoc interpreters. In multivariate analyses, patients communicating through an interpreter and patients who needed an interpreter but didn't receive one were significantly less likely to be discharged with a follow-up appointment than patients in language concordant visits (either Spanish or English). The rates of knowledge of and adherence with follow-up visits were similar across all three groups.

Spanish-speaking patients who could not communicate with their providers directly received fewer follow-up emergency department visits compared to English speakers. [Key Words: Access barrier, Ad hoc interpreting, Adherence, Comparison study, Utilization; Emergency medicine; Spanish; California]

111. Schur CL, Albers LA. Health care use by Hispanic adults: Financial vs. non-financial determinants. Health Care Financing and Review. 1995;17(2):71-91.

The effects of financial and cultural factors on health care use by Hispanic adults were studied using data from the 1987 National Medical Expenditure Survey, a national probability sample of roughly 14,000 households in which there were 1,928 self-reported adult (>18 years) Hispanic Americans. The study collected data on expenditures for health care services, health insurance coverage, health and functional status, usual source of care, employment, income and other demographic information. Surveys were conducted in both English and Spanish. The researchers used bivariate and multivariate regression analyses to assess the relative importance of financial and cultural factors while controlling for other characteristics, including health status. Persons who did not speak English were found to be no less likely than English speakers to report having a usual source of care, suggesting that entry into the health care system may not be substantially more difficult for those who speak only Spanish. Monolingual Spanish speakers were not found to differ significantly from English speakers in their number of physician visits or in the probability of having had their blood pressure checked. However, the authors caution that there may be a number of limitations in their study, including the possibility that acculturation and language may be variables that determine whether an individual is able to acquire insurance and a usual source of care.

Spanish-speaking Latinos were not significantly different in their ability to access care from English-speaking Latinos, suggesting that language is not the primary barrier to care for this population. [Key Words: Comparison study, Outcomes (patient reported), Prevention, Utilization; Primary care; Spanish; United States]

112. Schur CL, Albers LA. Language sociodemographics, and health care use of Hispanic Adults. Journal of Health Care for the Poor and Underserved. 1996;7(2):140-158.

The role of spoken language in Hispanic adults' access to health care was assessed using data from the 1987 National Medical Expenditure Survey, a national probability sample that included 1,928 self-reported adult (>18 years) Hispanic Americans. The survey, conducted in English and Spanish, collected data on expenditures for health care services, health insurance coverage, health and functional status, usual source of care, employment, income and other demographic information. Hispanic identification and classification by national origin was self-reported. To collect data on language, respondents were asked the following: "What is [the person's] native language?" "Does [person] usually speak [native language] at home?" "Can [person] conduct everyday activities comfortably in English?" Only Hispanics who spoke either English or Spanish were included in the analyses. Using bivariate analysis, the authors found that monolingual Spanish speakers were on average older, less educated, less likely to be employed, more likely to live in poverty, and have worse health than those who spoke only English. Among monolingual Spanish speakers with a regular doctor, more than two-thirds had a Spanish-speaking practitioner, leaving the remaining one-third of this group with a potential language problem with their doctor. Data was not collected on how this language discordant group communicated with their physicians. Overall, primary language was not found to be a primary factor driving the gap in utilization and access to health care between Hispanics and other ethnic and racial groups.

Language may not be the primary factor accounting for disparities in access and utilization for Latino populations. [Key Words: Access barrier, Comparison study, Language concordance; Primary care; Spanish; United States]

113. Seijo R, Gomez J, Freidenberg J. Language as a communication barrier in medical care for Hispanic patients. Hispanic Journal of Behavioral Sciences. 1991;13(4):363-375.

This study examines the association between physician-patient language concordance and patient question-asking behavior and patient recall at an internal medicine clinic in New York City. Each patient-physician encounter was directly observed and followed by a patient interview. Fifty-one Hispanic patients, identified by surname and confirmed by discussion with their physician, agreed to participate in the study; 24 had a bilingual Spanish-speaking physician, while 27 had a physician who did not speak Spanish. Physician Spanish language proficiency was self-reported on a 5-point scale. Bilingual physicians, who were all born in Latin American countries, all reported excellent proficiency. During the clinical encounter, the observer recorded the number and type of questions asked by the patient and the information given by the physician. Immediately after the visit, the patient was interviewed in Spanish about patient characteristics, self-rated English proficiency, and content questions related to the clinical encounter. Comparison of patient-reported information and observer-noted information using t-tests found that patients seen by bilingual physicians had a significantly higher recall than patients seen by non-Spanish-speaking physicians (72 percent vs. 54 percent); there was no difference in the amount of information given by the two groups of physicians. Using chi-squared analysis, the number of patients who asked one or more questions was also significantly higher in the language concordant group (58 percent vs. 41 percent).

Language concordance between patients and their physicians may result in better recall and increased patient efficacy. [Key Words: Comprehension, Language concordance; Primary care; Spanish; New York]

114. Shapiro J, Saltzer E. Cross-cultural aspects of physician-patient communications patterns. Urban Health. 1981(December):10-15.

This investigation explored whether communication patterns differed between culturally similar and culturally dissimilar doctor-patient dyads. The researchers analyzed 61 audiotaped interviews between 10 white, male physicians and their Hispanic and non-Hispanic patients. Three of the physicians spoke Spanish; 15 of the interviews were conducted in Spanish, some with an interpreter present. The type of interpreter used in the study was not described. The interviews were rated for rapport with the patient, explanation of the therapeutic regimen and physician ability to elicit patient feedback. Non-English interviews had significantly lower ratings for rapport, explanation and feedback elicitation than English interviews. The authors found that having an interview in Spanish was the leading predictor of having a discrepancy between a patient's description of their medication and the medication listed in their chart. The presence of an interpreter in the Spanish interviews reduced the likelihood of finding such a discrepancy. There were no significant differences between Spanish and English interviews in patient awareness of diagnosis, return for follow-up visits, or clarity of patient understanding that a follow-up visit had been made.

Patients who do not speak English well and do not have the assistance of an interpreter may have significantly lower comprehension and satisfaction with their medical care. [Key Words: Communication analysis, Comprehension, Efficacy, Medication, Outcomes (measured); Primary care; Spanish; California]

115. Shaw J, Hemming MP, Hobson JD, Nieman P, Naismith NW. Comprehension of therapy by non-English-speaking hospital patients. Medical Journal of Australia. 1977;2(13):423-327.

This was a Melbourne, Australia, hospital outpatient pharmacy survey to determine the number of non-English-speaking patients served and their understanding of prescribed medications. During a five-day

period, pharmacists assessed each patient who presented to the pharmacy for her/his native language. Patients whose native language was not English were interviewed by the pharmacist; if a patient was unable to answer in English, the interview was conducted with a trained interpreter. Approximately 15 percent of the 1,832 patients seen were considered non-English-speaking, representing 20 languages with varied English proficiency. Two hundred fifty seven patients were interviewed, 73 with trained interpreters. Of these patients, 20.2 percent were unable to state the correct dose and frequency of their drug while 19.8 percent did not know the intended function of the drugs. Overall, 35 percent of the patients interviewed had "little or no knowledge" about their therapy.

Among patients with language barriers, a significant number have inadequate knowledge about their prescribed medications, which puts them at risk for medication errors and poor adherence.
[Key Words: Comprehension, Medication; Pharmacy; LEP; Australia]

116. Silverstein ML, Iverson L, Lozano P. An English-language clinic-based literacy program is effective for a multilingual population. Pediatrics. 2002;109(5):76.

The objective of this research was to assess the effectiveness of a clinic-based pediatric literacy intervention on a multilingual population at an urban county hospital in Seattle, Washington. The intervention included modeling age-appropriate reading in English in patient waiting rooms, literacy counseling during doctor visits, and the gift of an unused English-language book at the end of a visit. Answers to survey questions by English- and non-English-speaking caregivers of children between 6 months and 5 years of age were compared before and after the intervention. English-speaking status was determined by asking parents their "primary and secondary languages."

Compared with the English-speaking families, the non-English speaking families had a lower literacy orientation both at baseline and post-intervention. However, the intervention increased reading and reading orientation equally in both groups. Post-intervention, non-English-speaking caregivers' ratings of reading with the child as a favorite activity increased significantly from 11 percent to 27 percent. Incorporating reading into a bedtime ritual at least once a week (36 percent to 56 percent) and the number of children's books in the home (31 percent to 49 percent) also significantly increased in the non-English-speaking group. Reading as a favorite activity among the children also showed a non-significant increase in this group. These results were attenuated when analyzing data from caregivers who had minimal command of English, suggesting that literacy efforts focusing on English reading with parents with LEP may not be as effective.

Literacy interventions targeted at children may be as effective for non-English-speaking families as they are for English-speaking families. [Key Words: Literacy; Pediatrics; LEP; Washington]

117. Simson G, Mohr R, Redman A. Cultural variations in the understanding of traumatic brain injury and brain injury rehabilitation. Brain Injury. 2000;14(2):125-140.

This qualitative research project examined cultural variations in the understanding of traumatic brain injury (TBI), the rehabilitative process, and barriers to effective communication. Semi-structured interviews were conducted with 39 TBI patients and their families from Lebanese, Vietnamese and Italian backgrounds, who were seen at the Brain Injury Rehabilitation Unit (BIRU) in Sydney, Australia. A profile of all BIRU clients from the three cultural groups was developed. Six patients and an associated family member from each cultural group were recruited for this study; in the case of people with TBI who were too severely impaired to participate, family members were interviewed. Bilingual health workers were recruited as interviewers and received training about TBI and the research project before conducting audiotaped interviews in the home of the TBI patient. Interview reports contained a description of the key content of the interview, verbatim quotes from the participants and the interviewers' own cultural commentary. The interviews were then

analyzed using inductive thematic analysis with four stages of sorting, review, secondary analysis and identification of key themes. Results suggested that family members seemed to value attentiveness and friendliness of the staff over their professional skills, and that they generally valued the assistance of health interpreters. Another issue that emerged was the difficulty family members found in understanding medical terminology, even when interpreted. The use of family members as interpreters was acknowledged as being difficult, due to the tendency for information to be lost, misunderstood or "tempered" when speaking to other family members. There appeared to be a universal experience of TBI based on the reports of physical, cognitive and personality impairments by people with TBI. The authors concluded that appropriately trained staff should feel comfortable interpreting and providing information to non-English-speaking families.

Trained medical interpreters are a valued resource for Limited English Proficient patients' family members, and are preferred over ad hoc interpreters. [Key Words: Ad hoc interpreting, Medical language, Qualitative study; Neurology; LEP; Australia]

118. Small R, Rice PL, Yelland J, Lumley J. Mothers in a new country: The role of culture and communication in Vietnamese, Turkish, and Filipino women's experiences of giving birth in Australia. Women and Health. 1999;28(3):77-101.

This population-based study explored the perspectives that immigrant women in Melbourne, Australia, have of the maternity care they received. Bilingual/bicultural interviewers administered in-home interviews to six to nine months post-birth Vietnamese (n=104), Filipino (n=107) and Turkish (n=107) mothers, addressing several issues, including patient satisfaction and the role of interpreters.

Women were recruited to the study on the post-natal wards of three Melbourne teaching hospitals which were staffed by professional interpreters (training not described), although ad hoc interpreters were also used. The interview protocol was adapted and translated from the 1993 Survey of Recent Mothers. Only 18.6 percent of the women spoke English very well, 37.1 percent spoke fairly well, and 44.3 percent spoke little or no English. Women reported a need for interpreting assistance regardless of previous birthing experience, in or outside of Australia. Thirty-three percent of the women reported needing but not receiving interpreting assistance during prenatal care, compared with 25 percent during labor, and 78 percent during postpartum care. When they did receive interpreting assistance, it was most commonly through their partners or hospital interpreters; family members and female friends also assisted. Those who had hospital interpreters had slightly higher satisfaction ratings with their interpreters compared to women who used ad hoc interpreters, but both groups overwhelmingly reported being happy and relieved to have someone assist them with communication. Interpreter assistance was associated with a significantly greater likelihood of having electronic fetal monitoring during labor. Women who spoke English less than "very well" were significantly more likely to report that they did not have an active part in decision making regarding their care during labor and birth. They were also less likely to describe their prenatal care as very good and less likely to be very happy with their care during labor and child birth. Differences in patient satisfaction with maternity care were also related to cultural health beliefs about birth and postpartum care among the three cultural groups.

Language barriers may decrease women's satisfaction with their prenatal, labor and childbirth care. [Key Words: Ad hoc interpreting, Health beliefs, Need, Outcomes (measured), Patient satisfaction, Professional interpreting; Obstetrics and gynecology; LEP; Australia]

119. Solis JM, Marks G, Garcia M, Shelton D. Acculturation, access to care, and the use of preventive services by Hispanics: Findings from HHANES 1982-84. American Journal of Public Health. 1990; 80(s):11-19.

This study investigated the influence of access and acculturation on the use of preventive health services among Mexican American, Cuban American and Puerto Rican adults. Data was obtained from the 1982-1984 Hispanic Health and Nutrition Examination Survey, which included questions about sociodemographic information, preventive health behavior (physical, dental and eye examinations, pap smears, and breast exams), access to health care and acculturation, including language. Specifically, respondents were asked what language they a) spoke, b) preferred, c) read better and d) wrote better. The responses were on a scale from "Spanish only" to "Spanish and English equally" to "English only." The analytic sample included 2,975 Mexican Americans, 794 Cuban Americans, and 1,138 Puerto Ricans. In multiple regression analyses, access to care was a stronger predictor of preventive services use than acculturation. For each Hispanic group, having a usual source of care and insurance were significantly associated with greater recency of preventive service use. Among the acculturation measures for Mexican Americans, spoken language was the most significant: preferring to speak English was predictive of greater recency of preventive service use.

Limited English proficiency may contribute to decreased use of preventive health services, particularly among Mexican Americans. [Key Words: Acculturation, Insurance, Prevention; Spanish; United States]

120. Stein JA, Fox SA. Language preference as an indicator of mammography use among Hispanic women. Journal of the National Cancer Institute. 1990;82(21):1715-1716.

The objective of this study was to explore the relationship between acculturation, as defined by language preference and the use of screening mammography. Data were collected from 150 Hispanic women in Los Angeles interviewed via telephone; 70 were interviewed in English and 80 in Spanish. Those interviewed in Spanish were significantly less likely to report ever having had a mammogram (13.8 percent vs. 47.1 percent). They were also significantly less likely to have had a doctor discuss breast examination and mammograms with them. Women who spoke Spanish reported significantly more often, compared to women who spoke English, that they did not know if mammograms were painful or if radiation was harmful (15 percent E vs. 50 percent S). About an equal proportion of both groups (47.1 percent E vs. 45.7 percent S) answered that cost is not a barrier to mammograms.

This article suggests that language alone, or as a marker of acculturation, is associated with reduced use of mammography among Hispanic women. [Key Words: Acculturation, Comparison study, Prevention; Spanish; California]

121. Stephenson PH. Vietnamese refugees in Victoria, B.C.: An overview of immigrant and refugee health care in a medium-sized Canadian urban centre. Social Science & Medicine. 1995;40(12):1631-1642.

This paper examines the experience of Vietnamese refugees with the health care system in Victoria, British Columbia, through interviews with Vietnamese patients and health care workers. Interview protocols were developed with input from key informants to identify barriers to health care access and provision perceived by each group as well as areas of overlap between the two groups. Interviewees were recruited from health care areas with high level of Vietnamese presence (including admitting, emergency and obstetrics) and led to 20 Vietnamese patients and 20 health care workers self-selecting to participate in the study. The Vietnamese sample was selected to reflect community demographics; a Vietnamese interpreter was trained

as an interviewer and all interviews were conducted in Vietnamese. All Vietnamese respondents felt the staff was friendly and nondiscriminatory, but both groups felt that the major issue that needed addressing was problematic interpretation of symptoms and provider recommendations. The use of family members as interpreters led to conflicts due to role-reversals in the family structure and situations in which patients did not want to discuss particular conditions in the presence of other family members. The authors included a review of the literature as well as a discussion of general considerations when working with the Vietnamese refugee population (e.g. torture experiences, food preferences, alternative medicine) and specific examples of these medical topics and treatments.

This study highlights some of the difficulties with using family members as interpreters in this Vietnamese refugee population. [Key Words: Acculturation, Ad hoc interpreting, Refugees; Vietnamese; Canada]

122. Stolk Y, Ziguras S, Saunders T, Garlick R, Stuart G, Coffey G. Lowering the language barrier in an acute psychiatric setting. Australian and New Zealand Journal of Psychiatry. 1998;32:434-440.

The researchers investigated the effectiveness of an intervention to improve communication between patients with Limited English Proficiency (LEP) and providers in an acute psychiatric hospital in Australia. Patients were defined as LEP by both the staff and through self-report. The intervention was a 90-minute training session for clinical staff in the skills of working with an interpreter and on the importance of using the available professional interpreter service. The researchers measured the difference in the use of interpreter services between a four-week baseline and a six-week post-intervention period. Following the intervention, the rate of interpreter contacts increased significantly, from one every six patient-days to once every three-and-a-half patient-days. Interpreter requests and mean length of interpreter sessions also increased significantly, from 51.2 minutes to 85.1 minutes. The effect of the intervention was persistent and had increased when measured six months later.

Interventions directed at providers can improve the utilization of interpreters in the psychiatric setting. [Key Words: Educational intervention, Duration; Mental health; LEP; Australia]

123. Stone MA, Patel H, Panja KK, Barnett DB, Mayberry JF. Reasons for non-compliance with screening for infection with Helicobacter pylori in a multi-ethnic community in Leicester. U.K. Public Health. 1998;112:153-156.

This study attempted to identify the reasons for non-compliance with a screening program for Helicobacter pylori (H. pylori, a bacteria that can infect the stomach) in a multiethnic community, comparing the differences in uptake between Asians and non-Asians living in Leicester, England. A letter written in English was sent to 200 Asians and 200 non-Asians, identified by surname, inviting them to participate in a serological screening test for H. pylori. A third group of 200 individuals was sent the same letter, but it written in Gujarati as well as English. A bilingual researcher conducted open-ended, semi-structured interviews in the homes of those who responded affirmatively to the letters. Data was analyzed with chi-square tests. The overall acceptance rate for the screening test, combining the three groups, was 26 percent. Reasons for declining were obtained from a reply-slip returned by 131 out of 144 targeted persons, with “other commitments” listed most commonly. The only significant difference between Asians and non-Asians was that ten Asians, but only one non-Asian, cited family reasons for declining. Language was not found to be the most important factor affecting uptake of screening.

In this study of a community screening program for H.pylori infection, language was not a primary barrier. [Key Words: Prevention, Utilization; Gujarati; England]

124. Suarez L. Pap smear and mammogram screening in Mexican-American women: The effects of acculturation. American Journal of Public Health. 1994;84(5 (May)): 742-746.

This study examined the relationship between acculturation and the use of breast and cervical cancer screening among 450 Mexican-American women > 40 years in El Paso, Texas. It was an interview study that used a respondent's reported English proficiency, English vs. Spanish usage, value placed on culture, traditional family attitudes, and social interaction as measures of acculturation. The prevalence of Pap smear and mammogram screening use increased with each successively higher level of acculturation, as measured by English proficiency and English vs. Spanish usage. However, in multiple logistic regression analyses, adjusting for age, education, income, employment and heath insurance factors, this relationship was no longer significant. The strongest independent factor affecting mammogram screening was health insurance coverage.

The relationships between limited English proficiency and disparities in cancer screening among Spanish speakers may primarily be due to a lack of insurance, not communication barriers. [Key Words: Acculturation, Insurance, Prevention, Utilization; Spanish; Texas]

125. Thompson M, Curry MA, Burton D. The effects of nursing case management on the utilization of prenatal care by Mexican-Americans in rural Oregon. Public Health Nursing. 2001;15(2):82-90.

The goal of this retrospective study was to evaluate the effectiveness of the Rural Oregon Minority Prenatal Program (ROMPP) in improving the use of prenatal care by rural-dwelling, low income, Mexican American women at risk for poor pregnancy outcomes, including low birth weight, through the provision of culturally appropriate nursing case management services and peer outreach. Bilingual and bicultural outreach workers functioned as cultural brokers to interpret the meanings of behaviors, customs and events, as well as facilitated communication between client and provider. One hundred twenty-four Mexican American women who received ROMPP services were compared with 100 demographically similar women, identified through birth certificate date from the Oregon State health Division Department of Vital Statistics, who had given birth in the study county prior to the ROMPP. Among the Mexican-American women, 100 received a minimum of three prenatal community health nurse visits. The typical participant was 24 years old, born in Mexico, had completed seven years of education, lived with the father of the baby, and had a monthly household income of about $630. Only 14 percent spoke English and 54 percent were in the United States without documentation. There were no significant differences between the ROMPP and comparison groups in the adequacy of prenatal care or the number of prenatal visits. Language barriers were identified as a problem, particularly when ROMPP clients did not have a bilingual outreach worker's help. Other problems included financial concerns, transportation, and cultural and attitudinal barriers. Focus group participants commented that the number of clinics with bilingual providers or interpreters had increased over the past few years.

Providing bilingual and bicultural outreach workers helped reduce language barriers for Mexican-American women in this prenatal program. [Key Words: Prevention, Utilization; Obstetrics and gynecology; Spanish; Oregon]

126. Tocher TM, Larson E. Quality of diabetes care for non-English-speaking patients: A comparative study. Western Journal of Medicine. 1998;168:504-511.

This study was undertaken to determine the quality of care provided to non-English-speaking patients with

non-insulin-dependent diabetes when compared to English-speaking patients. Data on demographic characteristics, diabetes care and outcomes were abstracted from a university and a county medical centers' clinical and administrative databases. A total of 93 non-English-speaking and 529 English-speaking diabetic patients were enrolled in the study for a period of one year. Non-English-speaking patients were identified through the administrative databases and spoke 24 different languages, with Russian, Cambodian and Spanish being the most frequently encountered. Patients in this group received scheduled, professional interpreter services for each of their visits. In multivariate analyses, a significantly higher percentage of patients in the non-English-speaking group had dietary consultations and had met the American Diabetes Association guidelines for laboratory testing and physician visits than patients in the English-speaking group. The two groups did not differ in their mean values for serum lipids, glycosylated hemoglobin levels and renal function tests, nor did they differ in the number of reported diabetic complications.

Non-English-speaking diabetic patients with access to timely, professional interpreter services received better care than their English-speaking counterparts. [Key Words: Comparison study, Diabetes, Outcomes (measured), Professional interpreting, Utilization; Primary care; LEP; Washington]

127. Tocher TM, Larson EB. Do physicians spend more time with non-English-speaking patients? Journal of General Internal Medicine. 1999;14:303-309.

The objective of this study was to determine whether physicians at a general internal medicine clinic spend more time with their patients who do not speak English. How patients were identified as non-English speaking is not described in the paper. Eligible study visits were non-new patients who had scheduled visits with attending physicians and third-year medical residents. First- and second-year residents were excluded because of concern about the efficiency of less experienced physicians. Investigators measured time spent with the nurse, physician visit time and the physician's perceived visit time with the patient. After adjusting for demographic and comorbidity variables, the researchers did not find any significant differences between time spent with English-speaking (n=109) and non-English-speaking (n=57) patients. In contrast, physicians believed that they spent significantly more time with non-English-speaking patients. There was no attempt to measure visit content, physician-patient rapport, or patient satisfaction with the encounter. As the authors note, the clinic involved in the study (Harborview Medical Center in Seattle, Washington) is a leader in interpreter services for patients, and provides interpreters for everyone, regardless of ability to pay or language spoken (22 languages in this study). Their findings may result from studying a clinic staffed by professional interpreters and physicians who are very familiar with how to work with interpreters.

This study demonstrated that experienced physicians do not spend more time in interpreted visits when they work with trained interpreters. [Key Words: Duration, Professional interpreting; Primary care; LEP; Washington]

128. Todd KH, Samaroo N, Hoffman J. Ethnicity as a risk factor for inadequate emergency department analgesia. Journal of the American Medical Association. 1993;269(12):1537-1539.

This was a retrospective chart review to assess whether 31 Hispanic patients with isolated long-bone fractures presenting to the UCLA Emergency Medicine Center in Los Angeles, California, were less likely to receive analgesic administration when compared to 108 non-Hispanics with the same injuries. Results revealed that after controlling for sociodemographic variables and other covariates, Hispanic ethnicity (recorded by registration personnel) was the strongest predictor of receiving no analgesia. Primary patient language attained borderline significance as an independent predictor. It was not possible to determine the

presence of interpreters for Spanish-speaking patients. This was one of the first studies demonstrating disparities in treatment attributable to race/ethnicity and possibly language.

Language barriers may contribute to disparities in treatment for Latinos. [Key Words: Analgesia, Outcomes (measured), Utilization; Emergency medicine; Spanish; California]

129. Tran M, Young L, Phung H, Hillman K, Willcocks K. Quality of health services and early postpartum discharge: Results from a sample of non-English-speaking women. Journal of Quality in Clinical Practice. 2001;21:135-143.

The aim of this study was to form a profile of Vietnamese mothers in Australia who opt for early postpartum discharge (<48hrs) and the factors associated with that decision. They abstracted data from focus group discussions, interviews and surveys of 160 Vietnamese mothers. Sixty of these mothers opted for early discharge. In multivariate analyses, factors significantly related to early discharge were self-reported fluency in English, age younger than 25 years, having a very low level of education, delivering vaginally, reporting problems with insurance and being a first time mother. The in-depth interviews further identified factors driving early discharge, including difficulties with overcoming language barriers, cultural practices, problems with staff, feeling isolated and lack of familiarity with the hospital environment. The qualitative findings suggest that the relationship between low English fluency and early discharge is related to communication difficulties, and not because fluency is a marker for low acculturation.

Language barriers are associated with early postpartum discharge among Vietnamese mothers in Australia. [Key Words: Utilization; Obstetrics and gynecology; Vietnamese; Australia]

130. Tuffnell DJ, Nuttall K, Raistrick J, Jackson TL. Use of translated written material to communicate with non-English-speaking patients. British Medical Journal. 1994;309(6960):992.

This brief article presents results of a study conducted by interpreters to determine the utility of translated materials for communicating with patients in Bradford, England. Information on primary language and literacy was gathered for 1,000 non-white patients who either attended clinic or received care as inpatients. The ability to read or write was graded as “fluent,” “partial” or “absent.” The percentage of patients who reported complete lack of literacy in both English and their native language was 58.8 percent overall, but varied markedly among the different language groups. Of the 176 patients who reported some understanding of written English, 32.4 percent had only partial understanding. Among the 205 patients who could understand written information in a language other than English, 35.6 percent only had a partial understanding. Given the high levels of illiteracy in both English and native languages, communication using non-written methods, such as audio and videotapes, are needed for these populations.

Assessment of literacy in both English and native languages is an issue that should be considered when working with non-English-speaking populations. [Key Words: Literacy, Need; LEP; England]

131. Wardin K. A comparison of verbal evaluation of clients with limited English proficiency and English speaking clients in physical rehabilitation settings. American Journal of Occupational Therapy. 1996;50(10):816-825.

The aim of this research was to understand how occupational therapists verbally assess and interact with patients who have Limited English Proficiency (LEP) and if these interactions pose particular difficulty. Data came from surveys completed by 74 occupational therapists from six major United States metropolitan areas with high concentrations of LEP persons. "Limited interpreter services" was the most common barrier reported. The investigators found through statistical analysis that therapists with large numbers of LEP clients were significantly more likely to use family members as interpreters. Respondents also reported spending significantly more time with LEP clients, but reported understanding the treatment needs of their clients significantly less well. Occupational therapists who reported speaking a language other than English (usually Spanish) reported significantly better comprehension of their clients needs than monolingual therapists. These findings suggest that increasing the prevalence of interpreters and bilingual providers can result in improved care to LEP occupational therapy clients.

Encounters between clients with Limited English Proficiency and occupational therapists are often hindered by language barriers. [Key Words: Ad hoc interpreting, Duration, Language concordance, Need; Occupational therapy; Spanish; United States]

132. Watt IS, Howel D, Lo L. The health care experience and health behavior of the Chinese: A survey based in Hull. Journal of Public Health Medicine. 1993; 15:129-36.

This was a comparison survey of Chinese and white restaurant workers designed to identify health practices and barriers for a local Chinese community in the United Kingdom. A questionnaire, developed in conjunction with local community leaders, was developed in Chinese and English. Thirty Chinese takeout restaurants and 30 fish-and-chip shops were identified randomly through the telephone directory; surveys were collected from 80 Chinese (71 percent response rate) and 69 white (67 percent response rate) workers. Analysis was performed using chi-squared tests. Among the Chinese respondents, less than 15 percent reported a full ability to either read or speak English; the majority reported difficulties in understanding and being understood by their general practitioners (GP). The Chinese respondents were significantly more likely to consult their GP if unwell than white respondents, who indicated a greater use of other possible sources of help, such as pharmacists and nurses. However, for urgent conditions, white repondents were significantly more likely to report they would call their GP for an urgent visit, while Chinese respondents were more likely to request an ambulance or go directly to the hospital. The survey also asked about awareness, attitude towards or receipt of five preventive health measures: tobacco cessation, vaccinations, blood pressure checks, and cervical and breast cancer screening. For each area, fewer Chinese had heard of the issue or thought it was important compared with whites. Chinese respondents were significantly less likely than whites to have had their blood pressure checked, to have received a cervical cancer test or to have performed a breast self-examination.

Limited English Proficiency is prevalent in this surveyed Chinese community that also reports lower rates of preventive and outpatient care than the majority population. [Key Words: Comparison study, Prevention, Utilization; Primary care; Chinese; England]

133. Waxman MA, Levitt AM. Are diagnostic testing and admission rates higher in non-English-speaking versus English-speaking patients in the emergency department? Annals of Emergency Medicine. 2000;36(5):456-461.

This was an observational study of English-speaking patients (n=172) and patients with Limited English Proficiency (LEP; n=152) presenting to a New York public hospital's emergency department with non-traumatic chest or abdominal pain. The goal was to explore whether or not there were differences in the use of diagnostic tests, admission rates and length of stay between the two patient groups. The research assistant defined patients as having LEP. Patients with LEP spoke more than nine languages. Interpreters were present for all LEP patient visits, but only 19.6 percent of them were professional interpreters. Analyses were conducted using logistic regression analyses to control for multiple comparisons, but the researchers did not control for potential confounders. Patients with LEP and abdominal pain received significantly more tests (five on average) than English-speaking patients; test ordering was the same in both groups when they presented with chest pain. There were no significant differences between the two groups in length of stay in the emergency department or admission to the hospital.

Patients who do not speak English well may have more tests ordered in the emergency department than are necessary. [Key Words: Comparison study, Duration, Outcomes (measured), Utilization; Emergency medicine; LEP; New York]

134. Weech-Maldonado R, Morales LS, Spritzer K, Elliott M, Hays RD. Racial and ethnic differences in parents' assessments of pediatric care in Medicaid managed care. Health Services Research. 2001;36(3):575-594.

This study was designed to examine whether parents' reports and ratings of pediatric health care vary by race/ethnicity and language in Medicaid managed care. The researchers used data from the National Consumer Assessment of Health Plans, which consisted of 9,540 children enrolled in Medicaid plans in Arkansas, Kansas, Minnesota, Oklahoma, Vermont and Washington. The survey data were collected by telephone and mail, in Spanish and English, with a response rate of 42 percent. After controlling for age, gender, education and health status, non-white racial/ethnic groups generally reported more negative experiences with care than whites. Specifically, Asians who primarily spoke a language other than English at home and Hispanics who primarily spoke Spanish at home had significantly worse reports of care when compared to whites across multiple domains, including timeliness of care, provider communication, staff helpfulness and plan service. However, for both Asians and Hispanics, their English-speaking counterparts did not differ from whites on any reports of care.

Language barriers appear to be a major reason for patient dissatisfaction with care among Asians and Hispanics. [Key words: Comparison study, Patient satisfaction; Managed care; Asian languages, Spanish; United States]

135. Weinick RM, Krauss NA. Racial/ethnic differences in children's access to care. American Journal of Public Health. 2000;90(11):1771-1774.

The goals of this study were to examine racial and ethnic differences in children's usual source of care and to study the extent to which these differences may be explained by health insurance status, socioeconomic status and language ability. The data originated from the 1996 Medical Expenditure Panel Survey, conducted in English and Spanish, in which parents (n=6,900) were asked whether or not a selected child in their household had a regular source of health care or advice. In multivariate analysis, Latino children were nearly three times more likely to have no usual source of care than non-Latino white children. This

difference was found to be due to differences in language ability. Children whose interviews were conducted in English were 2.6 times more likely to have a usual source of care than children whose interviews were conducted in Spanish. There were no significant differences in usual source of care between Latino children whose interviews were conducted in English and non-Latino white children.

Latino children's barriers to care may be primarily related to their parents' Limited English Proficiency. [Key words: Access barrier, Comparison study; Pediatrics, Primary care; Spanish; United States]

136. Woloshin S, Schwartz LM, Katz SJ, Welch HG. Is language a barrier to the use of preventive services? Journal of General Internal Medicine. 1997;12:472-477.

The objective of this article was to examine the effect of spoken language on use of preventive services in a universal health insurance coverage setting. Researchers used the Ontario Health Survey, a cross-sectional survey of 22,448 women in Ontario, Canada, which collected information on self-reported utilization of preventive services, as well as sociodemographic and cultural measures. The survey was conducted in French and English, and collected data on the "language spoken most often at home;" respondents were divided into French, English, or "other." Using multiple logistic regression, French speakers were significantly less likely to have received breast examination and mammography, and other language speakers were significantly less likely to have received Pap testing.

This study uses a large-scale data set to demonstrate that language barriers have a negative impact on accessing preventive health services. [Key Words: Outcomes (measured), Prevention; French; Canada]

137. Wu FY. Mandarin-speaking aged Chinese in the Los Angeles area. Gerontologist. 1975;15(3):271-275.

This is an ethnographic study involving questionnaires from 50 middle-aged respondents and interviews with 50 elderly respondents, 10 community leaders and four social agency personnel in Los Angeles Chinatown. The elderly respondents reported that inability to speak or understand English was their most serious problem. Only seven of the 50 could read, speak and understand English well, while the rest had little or no knowledge of English. This resulted in a restricted lifestyle, where the elders were homebound because the language barrier made it difficult to use basic public services and to communicate effectively. Recommendations from all respondents included suggestions for a multipurpose senior center and structured services (e.g. health, transportation) for this demographic group, which could decrease the difficulties normally encountered in obtaining these services.

Elderly Chinese in the Los Angeles area may face severely restricted activities and exclusion from appropriate care services due to language barriers. [Key Words: Access barrier, Need, Qualitative study; Gerontology; Chinese; California]

Appendix A:
Related Research Reports

Andrulis D, Goodman N, Pryor C. What a Difference an Interpreter Can Make: Health Care Experiences of Uninsured with Limited English Proficiency. The Access Project. Brandies University, March 2002.

Bowen S. Language Barriers in Access to Health Care. Prepared for the Health Systems Division, Health Policy and Communications Branch, Health Canada. 2001.

Collins KS, Hughes DL, Doty MM, et al. Diverse Communities, Common Concerns: Assessing Health Care Quality for Minority Americans. Findings from the Commonwealth Fund 2001 Health Care Quality Survey. The Commonwealth Fund. March 2002. www.cmwf.org/programs/minority/collins_diversecommunities_523.pdf. Accessed 1/28/03.

Doty MM. Hispanic Patients' Double Burden: Lack of Health Insurance and Limited English. The Commonwealth Fund. February 2003.

Ginsberg C, Martin D, Andrulis D, Shaw-Taylor Y, and McGregor C. Interpretation and Translation Services in Health Care: A Survey of US Public and Private Teaching Hospitals. 1-49. 1995. Washington DC, National Public Health and Hospital Institute.

Morales LS, Puyol JA, Hayes RD. Improving Patient Satisfaction Surveys to Assess Cultural Competence in Health Care. California Healthcare Foundation. March 2003.

Wirthlin Worldwide Study on Language Barriers. Robert Wood Johnson Foundation. October/November 2001.http://www.hablamosjuntos.org/mediacenter/press_conference.asp. Accessed 3/30/03

Dissertations

Agger-Gupta, N. From “Making Do” to Established Service, The Development of Health Care Interpreter Services in Canada and the United States of America: A Grounded Theory Study of Health Organizational Change and The Growth of a New Profession. UMI Dissertation Services, Ann Arbor, Michigan. July, 1, 2001.

Morales LS. Assessing patient experiences with healthcare in multi-cultural settings [PhD dissertation]. Los Angeles, The Rand Graduate School / published in ProQuest Digital Dissertations / Dissertation Abstracts; 2000.

Nazneen, K. Language barriers to health care: Cost-benefit analysis of providing interpreter services at health care settings. Brandeis University, The F. Heller Graduate. School For Advanced Study In Social Welfare, Dissertation Abstracts International; 1998.

Prince CD. Hablando con el doctor: Communication problems between doctors and their Spanish-speaking patients [Ph.D. Dissertation]. Stanford, Stanford University / published by ProQuest Digital Dissertations / Dissertation Abstracts; 1986

Carol, EM. Interpreting Information: Health care communication among family nurse practitioners, interpreters, and Cambodian refugee patients. Dissertation Abstracts International. 57 (7-B): 3525; 1992.

Appendix B:
Descriptive Key Words

The key words are listed alphabetically by category: descriptive (of study type, focus, measures, etc), institutional setting, study language and geographic setting.

Access barrier: Studies in which language is investigated as a barrier to obtaining health care services.

Acculturation: Studies that use language as a measure of acculturation or examine the influence of acculturation on the primary outcomes of the study.

Ad hoc interpreting: Studies that examine the effect of interpreting by untrained interpreters, such as family and friends or untrained bilingual staff and providers.

Adherence: Studies that assess patient adherence to recommended treatment, such as medication use and keeping follow-up appointments.

Communication analysis: Studies that record the verbal exchange of a medical encounter for analysis.

Comparison study: Studies with an explicit comparison of English-speakers to people with Limited English Proficiency.

Comprehension: Studies that evaluate patient comprehension related to a health care encounter, such as understanding of diagnosis, medications, etc.

Cost: Studies that provide documentation of the monetary cost of language barriers or providing interpreter services.

Duration: Studies that document the measured or self-reported impact of language barriers or interpreter use on provider time.

Educational intervention: Studies that include an intervention to teach students, residents, or providers how to speak a language or how to better communicate with limited English Proficient patients.

Efficacy: Studies that measure the effect of trained or professional intepreters on outcomes.*

Health beliefs: Studies that explore the contribution of health beliefs to the primary study outcomes.

Institutional policy: Studies that reference a hospital or other health care insitution's policies regarding clients with Limited English Proficiency.

Insurance: Studies that explore the relationship between language and health insurance, or examine the effect of insurance on the primary study outcomes.

Interpreter preference: Studies that investigate patient or provider preference for interpreting, either type of interpreter (e.g. family and friends) or modality of interpreting (e.g. telephonic).

Interpreter role: Studies that examine the different roles interpreters can play, such as culture broker, translator, etc.

Interpreting practices: Studies that document the types of interpreting practices used by providers or by a health care institution.

Language concordance: Studies in which the provider and patient speak the same language.

Medical language: Studies that investigate the difficulty of either interpreting or understanding formal medical language.

Need: Studies that document or quantify patient or provider need for language assistance or medical interpreting services.

Outcomes (measured): Studies that examine the relationship between language and measured outcomes, including utlization and health status measures.

Outcomes (patient reported): Studies that examine the relationship between language and patient-reported outcomes, including utilization and health status.

Patient satisfaction: Studies that examine the relationship between language and reported patient satisfaction.

Prevention: Studies that investigate the relationship between language and provision of preventive care, such as cancer screening or immunizations.

Professional interpreting: Studies that examine the effect of interpreting by professional or staff interpreters.*

Qualitative study: Studies whose primary methodology consists of focus groups, semi-structured interviews, or participant observation data.

Research methodology: Studies that examine how language impacts research enrollment or methodology.

Utilization: Studies of the relationship between language and utilization of health care, either measured or patient-reported, including testing, hospital admision, etc.

** Many studies do not describe whether or how professional or staff interpreters are trained. While it is reasonable to assume that professional interpreters are more accurate and provide better interpreting than ad hoc interpreters, the quality may vary depending on the professional interpreter's training.*

Additional Descriptive and Setting Key Words

Analgesia
Asthma
Diabetes
Domestic violence
Emergency medicine
Gerontology
Hospital
Literacy
Managed care
Medication
Mental Health
Neurology
Obstetrics and gynecology
Occupational Therapy
Palliative Care
Pediatrics
Pharmacy
Primary care
Public health
Refugees
Surgery

Language Key Words

Asian Languages
Bangladeshi
Chinese (includes Cantonese, Mandarin, Toisanese)
Cree
French
German
Gujarati
Hausa
Hmong
Khmer
LEP (Limited English Proficient): more than two different languages were included in the study* or the languages were not specified
Portuguese
Punjabi
Russian
Saulteau
Spanish
Vietnamese
Welsh
Xhosa

** Additional languages that were not listed as key words because there were more than two languages studied include: Albanian, Bengali, Cambodian, Haitian Creole, Italian, Kurdish, Somali, South Slavic, Laotian, Portuguese Creole, Serbo-Croatian, Tagalog, Tamil, Turkish, Urdu.*

Geographic Key Words

Arizona
Australia
Austria
California
Canada
Colorado
Connecticut
England
Florida
Illinois
Massachusetts
Minnesota
New York
Nigeria
North Carolina
Oregon
Rhode Island
Scotland
South Africa
Switzerland
Texas
Wales
Washington
Wisconsin
United States

Appendix C:
Glossary

This glossary defines some common terms used in the field of healthcare interpreting. Some definitions are borrowed from the California Healthcare Interpreter Association document "California Standards for Healthcare Interpreters" (available at http://www.CHIA.ws), while others are borrowed or modified from a document produced by the Standards, Training and Certification Committee of the National Council on Interpreting in Health Care, "The terminology of health care interpreting: A glossary of terms" (2001, available at http://www.ncihc.org), and yet others are from the ASTM standards document (2000, available at http://www.astm.org).

Ad Hoc Interpreter: An untrained person who is called upon to interpret, such as a family member interpreting for her parents, a bilingual staff member pulled away from other duties to interpret, or a self-declared bilingual in a hospital waiting-room who volunteers to interpret. Also called a chance interpreter or lay interpreter.

Advocacy: In the health care interpreter setting, "advocacy" is an action taken by an interpreter intended to further the interests of, or rectify a problem encountered by one of the parties, to the interpreting session, usually the patient.

Bilingual: A term describing a person who is proficient in two languages. Fluency in both languages, the most basic of the qualifications of a competent interpreter, by itself does not ensure the ability to interpret.

Consecutive Interpreting: The mode of interpreting whereby the interpreter relays a message in a sequential manner after the speaker has paused or has completed a thought. In other words, the interpreter waits until the speaker has finished the utterance before rendering it in the other language.

Cultural Competency: A continuous process of seeking cultural sensitivity, knowledge and skills to work effectively with individuals and families from diverse cultural communities and with their culturally diverse providers.

Cultural Responsiveness: A measure of the knowledge, skill and sensitivity of health care professionals and their organizations to become aware of the individual and systemic needs of culturally diverse populations, and their subsequent receptivity and openness in developing, implementing and evaluating culturally appropriate individual and institutional responses to these needs.

First-person Interpreting: The use of the direct utterances of each speaker by the interpreter as though the interpreter was the voice of the person speaking in the language of the listener. For example, if the patient says, "My stomach hurts," the interpreter says (in the listener's language), "My stomach hurts," and not "She says her stomach hurts,"

Health Care Interpreter: A health care interpreter is one who is qualified to interpret in the health care setting. In addition to being bilingual they must be knowledgeable about medical terminology how to work in the health care setting and the importance of doctor-patient confidentiality

Interpreter: An individual who mediates spoken or signed communication between people speaking different languages without adding, omitting, or distorting meaning or editorializing. The objective of the professional interpreter is for the complete transfer of the thought behind the utterance in one language into an utterance in a second language.

Interpreting: The process of understanding and analyzing a spoken or signed message and re-expressing that message faithfully, accurately and objectively in another language, taking the cultural and social context into account (ASTM, 2000). The purpose of interpreting is to enable communication between two or more individuals who do not speak each other's languages.

Limited English Proficiency (LEP): "Limited English Proficient" or "LEP" means a limited ability or inability to speak, read, write or understand the English language at a level that permits the person to interact effectively with health care providers or social service agencies.

Interpreting Mode: Interpreting involving different formats and differing ways of interacting with the two parties during the interpreting interaction. Modes include: Consecutive, Simultaneous or Summary. They can be either done proximally (on-site and in-person) or remotely (via telephone, video or computer). The standard mode for health care interpreting is consecutive; summary mode is not an acceptable mode in health care interpreting.

Professional Interpreter: An individual who has been trained and tested, adheres to a code of professional ethics and standard protocols and is paid to interpret.

Remote Interpreting: Interpreting provided by an interpreter who is not in the presence of the speakers, e.g., interpreting via telephone or videoconferencing.

Interpreter Role: The health care interpreter, in working toward positive health outcomes for the patient, takes on a variety of roles, depending on the circumstances as required. Roat calls the shifting between intervening roles the incremental intervention model (Roat & et. al., 1999). Among possible roles, the interpreter functions as "message converter" (often called the "conduit" or "message passing" role); the "message clarifier," the "cultural clarifier" and the "patient advocate." The interpreter should be aware, at all times, that the most appropriate role is the least invasive role that will assure effective communication and care.

Significant (significance): Used in the statistical sense of a trend or indicator with a p value of less than 0.05.

Simultaneous Interpreting: Converting a speaker or signer's message into another language while the speaker or signer continues to speak or sign.

Target Language: The language of the listener; the language into which an utterance is interpreted.

Translation: The conversion of a written text into a written text in a second language corresponding to and equivalent in meaning to the text in the first language. (Note that translation refers to written to written conversion while interpreting refers to the conversion of spoken or verbal communication from one language into a second language.)

Translator: A person who converts written texts from one language into a text in a second language with an equivalent meaning, especially one who does so professionally.

Transparency/Transparent Interpreting: The idea that the interpreter keeps both parties in the interpreting session fully informed of what is happening, who is speaking and what the interpreter is doing, is known as "transparency."

Utterance: A verbal or spoken word, thought or expression.

Video Interpreting: Interpreting when one or more of the parties are not present in the same room, using a video camera to enable the parties to see and hear each other, including the interpreter, via a TV monitor.

www.calendow.org

Language Barriers in Health Care Settings: An Annotated Bibliography of the Research Literature is a publication of The California Endowment. No part of this publication may be reproduced without attribution to The California Endowment. To be added to The California Endowment database and alerted to upcoming publications, please e-mail us at info_publications@calendow.org.

The California Endowment
21650 Oxnard Street, Suite 1200
Woodland Hills, CA 91367
800.449.4149