Cost-Saving Benefits of Language Assistance Services in Healthcare Settings

A Compilation of Selected Abstracts

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2008
Summary

With 23 million Americans that have limited English proficiency (LEP), there is an urgent need for language access services in health care settings in order to ensure that all patients receive accurate as well as culturally competent care. Medical errors in diagnoses can emerge from misunderstandings in communication, which is extremely dangerous for the patient and can place expensive liability on the part of the health provider (hospitals or primary care professional). However, interpretive services in most health care arenas appear to be of inferior quality or completely absent. Although federal measures are in place to guarantee that LEP persons receive linguistic appropriate care, state governments have failed to implement them. Enforcement of the laws is weak, and states do not receive sufficient resources to make language assistance services available to patients. These federal laws include Title VI of the Civil Rights Act of 1964, which prohibits racial and ethnic discrimination in federally-funded programs; the Emergency Medical Treatment and Active Labor Act of 1986, which delivers penal consequences to hospitals that fail to provide language assistance to LEP persons; and Medicaid regulations that require Medicaid providers and participating agencies to offer linguistically appropriate services.

This document lists selected bibliography and abstracts (75 articles, 56 abstracts) that examined how good quality interpretive services can save money for patients, hospitals, medical professionals, and state and federal governments. This document was produced for the Medi-Cal Language Access Services Taskforce, California 2008.

Literature shows that the presence of language access services not only creates a culturally competent environment, but also provides financial benefits to all parties involved. The studies featured in the bibliography were carried out in various states throughout the country, such as California, Washington, Maryland, and Wisconsin. Two were conducted in the United Kingdom. The range of study types include cross-sectional survey, randomized control, observational, case-control, prospective cohort, time-motion, mixed methods survey, questionnaire, literature review, and one with an ethnographic approach. The spectrum of subject populations is also diverse: South Asians residing in the United Kingdom, Latin American immigrant adults to the United States, Chinese and Vietnamese immigrant adults to the United States, new mothers, children, and diabetes patients. The majority of studies focused on Spanish-speaking patients; therefore, Spanish language interpretive services were the most commonly evaluated. Language access services for patients that speak Bengali, Chinese, and Vietnamese were also examined. The health care settings of the studies include emergency departments in public hospitals, pharmacies, outpatient settings, ambulatory care clinics, and urban teaching hospitals. The research teams worked with primary care physicians, pediatricians, nurses and pharmacists.

Much of the literature support the cost-saving benefits of utilizing interpretive services and honed in on specific factors that can contribute to increased costs, such as clinic visit length, the likelihood of medical errors made by healthcare professionals, and the outcome of serious medical events. Several studies also examined the perceptions of the overall quality of care of the clinic visit from both patients’ and clinicians’ perspectives. Moreover, many investigators concluded that the use of untrained ad hoc interpreters, such as family members and friends of patients, increases the likelihood of errors made in medical diagnosis and treatment.
Bibliography


This paper uses the latest data from the Organization for Economic Cooperation and Development (OECD) to compare the health systems of the thirty member countries in 2000. Total health spending--the distribution of public and private health spending in the OECD countries--is presented and discussed. U.S. public spending as a percentage of GDP (5.8 percent) is virtually identical to public spending in the United Kingdom, Italy, and Japan (5.9 percent each) and not much smaller than in Canada (6.5 percent). The paper also compares pharmaceutical spending, health system capacity, and use of medical services. The data show that the United States spends more on health care than any other country. However, on most measures of health services use, the United States is below the OECD median. These facts suggest that the difference in spending is caused mostly by higher prices for health care goods and services in the United States.


CONTEXT: Despite the substantial amount of health-related information available on the Internet, little is known about the accessibility, quality, and reading grade level of that health information. OBJECTIVE: To evaluate health information on breast cancer, depression, obesity, and childhood asthma available through English- and Spanish-language search engines and Web sites. DESIGN AND SETTING: Three unique studies were performed from July 2000 through December 2000. Accessibility of 14 search engines was assessed using a structured search experiment. Quality of 25 health Web sites and content provided by 1 search engine was evaluated by 34 physicians using structured implicit review (intrarater reliability >0.90). The reading grade level of text selected for structured implicit review was established using the Fry Readability Graph method. MAIN OUTCOME MEASURES: For the accessibility study, proportion of links leading to relevant content; for quality, coverage and accuracy of key clinical elements; and grade level reading formulas. RESULTS: Less than one quarter of the search engine's first pages of links led to relevant content (20% of English and 12% of Spanish). On average, 45% of the clinical elements on English- and 22% on Spanish-language Web sites were more than minimally covered and completely accurate and 24% of the clinical elements on English- and 53% on Spanish-language Web sites were not covered at all. All English and 86% of Spanish Web sites required high school level or greater reading ability. CONCLUSION: Accessing health information using search engines and simple search terms is not efficient. Coverage of key information on English- and Spanish-language Web sites is poor and inconsistent, although the accuracy of the information provided is generally good. High reading levels are required to comprehend Web-based health information.

The study was conducted to investigate the impact of an Interpreter Service on intensity of Emergency Department (ED) services, utilization, and charges. This study describes the effects of language barriers on health care service delivery for the index ED visit and a subsequent 90-day period. In all 26,573 ED records from July to November, 1999, resulted in a data set of 500 patients with similar demographic characteristics, chief complaint, acuity, and admission rate. Noninterpreted patients (NIPs) who did not speak English had the shortest ED stay (LOS) and the fewest tests, IVs and medications; English-speaking patients had the most ED services, LOS, and charges. Subsequent clinic utilization was lowest for NIPs. Among discharged patients, return ED visit and ED visit charges were lowest for interpreted patients (IPs). Use of trained interpreters was associated with increased intensity of ED services, reduced ED return rate, increased clinic utilization, and lower 30-day charges, without any simultaneous increase in LOS or cost of visit.


A large, widening gap exists between the incomes of primary care physicians and those of many specialists. This disparity is important because noncompetitive primary care incomes discourage medical school graduates from choosing primary care careers. The Resource-Based Relative Value Scale, designed to reduce the inequality between fees for office visits and payment for procedures, failed to prevent the widening primary care-specialty income gap for 4 reasons: 1) The volume of diagnostic and imaging procedures has increased far more rapidly than the volume of office visits, which benefits specialists who perform those procedures; 2) the process of updating fees every 5 years is heavily influenced by the Relative Value Scale Update Committee, which is composed mainly of specialists; 3) Medicare's formula for controlling physician payments penalizes primary care physicians; and 4) private insurers tend to pay for procedures, but not for office visits, at higher levels than those paid by Medicare. Payment reform is essential to guarantee a healthy primary care base to the U.S. health care system.


The quality of communication between patients and clinicians can have a major impact on health outcomes, and limited English proficiency can interfere with effective communication. More than ten million U.S. residents speak English poorly or not at all, constituting a language chasm in the health care system. This paper reviews the evidence on the link between linguistic competence and health care quality and the impact of particular language-assistance strategies. Drawing on the experiences of fourteen health plans that have been at the forefront of linguistic competence efforts, we identify lessons for plans, purchasers, policymakers, and researchers on ways to improve the availability and quality of interpreter services.


**BACKGROUND:** Twenty-three million Americans have limited English proficiency. Language barriers can have major adverse consequences in health care, but little is
known about whether pharmacies provide adequate care to patients with limited English proficiency. OBJECTIVES: We sought to evaluate pharmacies' ability to provide non-English-language prescription labels, information packets, and verbal communication, and assess pharmacies' satisfaction with communication with patients who have limited English proficiency. METHODS: We used a cross-sectional, mixed-methods survey of Milwaukee County, Wisconsin, pharmacies. Survey questions addressed sociodemographic and language-service characteristics of pharmacies. A pharmacist or technician at each pharmacy was asked 45 questions by telephone, fax, or mail. The main outcome measures were the ability of pharmacies to provide non-English-language prescription labels, information packets, and verbal communication; and pharmacy satisfaction with communication with patients who have limited English proficiency. RESULTS: Of 175 pharmacies, 73% responded. Forty-seven percent of the pharmacies never/only sometimes can print non-English-language prescription labels, 54% never/only sometimes can prepare non-English-language information packets, and 64% never/only sometimes can verbally communicate in non-English languages. Eleven percent use patients' family members/friends to interpret. Only 55% were satisfied with their communication with patients who have limited English proficiency. In multivariate analyses, community pharmacies had significantly lower odds of being able to verbally communicate in non-English languages, whereas pharmacies using telephone interpreting services had significantly higher odds. Pharmacies' suggestions for improving patient communication included continuing education, producing a chain-wide list of resources, hiring bilingual staff, using telephone interpreters, analyzing translation quality/accuracy of labels and information packets, and adding more languages to pharmacy software. CONCLUSIONS: Approximately half of Milwaukee pharmacies never/only sometimes can provide non-English-language prescription labels or information packets, and approximately two thirds never/only sometimes can verbally communicate in non-English languages. One in 9 pharmacies that verbally communicate in non-English languages use patients' family members/friends to interpret. Almost half of the pharmacies are dissatisfied with their communication with patients who have limited English proficiency. Community pharmacies are less likely and pharmacies using telephone interpreting services are more likely to be able to verbally communicate in non-English languages. Study findings indicate that improvements in pharmacies' communication with patients who have limited English proficiency may result by increasing the quality and number of non-English languages in existing computer programs, hiring bilingual staff, and using telephone interpreting services when in-person interpreters are unavailable.


Existing studies indicate the importance of communication, particularly for patients from minority ethnic groups, and the difficulties that occur in the healthcare arena when this communication is not effective.


Increasing numbers of persons in the United States cannot speak, read, write, or understand the English language at a level that permits them to interact effectively. These limitations can hamper encounters between patients and healthcare providers, often leading to misunderstandings as to diagnosis and treatment, which in turn may result in poor patient compliance, unsatisfactory outcomes, and increased costs. A questionnaire was developed and distributed to clinical practice managers at the University of Maryland School of Medicine to assess the needs for language interpretation services and resources among clinical faculty providing healthcare to persons with limited English proficiency (LEP). Literature review, search of key Web sites, and consultation with national experts on issues pertaining to language access, health services, and reimbursement strategies also were done. Then, recommendations regarding the costs and benefits of language interpretation in healthcare settings were developed. Because recipients of federal financial assistance from the Department of Health and Human Services must provide meaningful access to persons with LEP at no cost to the client, there are clear benefits to providing language interpretation. Providers and managers should be made aware of interpretation service options and cost-saving strategies.


**BACKGROUND:** For decades, reformers argued that medical groups can efficiently provide high-quality care and a collegial professional environment. The growth of managed care and the movement to improve quality provide additional reasons for physicians to practice in groups, especially large groups. However, information is lacking on recent trends in group size and the benefits of and barriers to group practice.

**OBJECTIVES:** To identify benefits of and barriers to large medical group practice, and to describe recent trends in group size.

**Design, Setting, and PARTICIPANTS:** Information on benefits and barriers was obtained from 195 interviews conducted during round 3 (2000-2001) of the Community Tracking Study with leaders of the largest groups, hospitals, and health insurance plans in 12 randomly selected metropolitan areas. Information on recent trends in group size was obtained from more than 6000 physicians in private practice in 48 randomly selected metropolitan areas via Community Tracking Study telephone surveys in 1997-1998, 1998-1999, and 2000-2001.

**MAIN OUTCOME MEASURES:** Benefits of and barriers to large group practice, as perceived by interviewees, and changes in percentages of physicians in groups of varying sizes.

**RESULTS:** Gaining negotiating leverage with health insurance plans was the most frequently cited benefit; it was cited 8 times more often than improving quality. Lack of physician cooperation, investment, and leadership were the most frequently cited barriers. Survey data indicate that 47% of private physicians work in practices of 1 or 2 physicians and 82% in practices of 9 or fewer, and that the percentage of physicians in groups of 20
or more did not increase between 1996 and 2001. CONCLUSIONS: Current payment methods reward gaining size to obtain negotiating leverage more than they reward quality. However, barriers to creating large medical groups are substantial, and most private physicians continue to practice in small groups, although the size of these groups is slowly increasing.


Clinical knowledge, best evidence, and practice patterns evolve over time. The ability to track these changes and study practice trends may be valuable for performance measurement and quality improvement efforts. The goal of this study was to assess the feasibility and validity of methods to generate and compare trends in biomedical literature and clinical narrative. We focused on the challenge of detecting trends in medication usage over time for two diseases: HIV/AIDS and asthma. Information about disease-specific medications in published randomized control trials and discharge summaries at New York-Presbyterian Hospital over a ten-year period were extracted using Natural Language Processing. This paper reports on the ability of our semi-automated process to discover disease-drug practice pattern trends and interpretation of findings across the biomedical and clinical text sources.


OBJECTIVE: Language barriers may lead to medical errors by impeding patient-provider communication. The objective of this study was to determine whether hospitalized pediatric patients whose families have language barriers are more likely to incur serious medical errors than patients whose families do not have language barriers. METHODS: A case-control study was conducted in a large, academic, regional children's hospital in the Pacific Northwest. Case patients (n = 97) included all hospitalizations of patients who were younger than 21 years and had a reported serious medical event from January 1, 1998, to December 31, 2003. Control patients (n = 475) were chosen from hospitalizations without a reported serious medical event and were matched with case patients on age, admitting service, admission to intensive care, and date of admission. The main exposure was a language barrier defined by self- or provider-reported need for an interpreter. Serious medical events were defined as events that led to unintended or potentially adverse outcomes identified by the hospital's quality improvement staff. RESULTS: Fourteen (14.4%) of the case patients and 53 (11.2%) of the control patients were assigned an interpreter during their hospitalization. Overall, we found no increased risk for serious medical events in patients and families who requested an interpreter compared with patients and families who did not request an interpreter (odds ratio: 1.36; 95% confidence interval: 0.73-2.55). Spanish-speaking patients who requested an
An interpreter comprised 11 (11.3%) of the case patients and 26 (5.5%) of the control patients. This subgroup had a twofold increased risk for serious medical events compared with patients who did not request an interpreter (odds ratio: 2.26; 95% confidence interval: 1.06-4.81). CONCLUSIONS: Spanish-speaking patients whose families have a language barrier seem to have a significantly increased risk for serious medical events during pediatric hospitalization compared with patients whose families do not have a language barrier.


CONTEXT: Growth of at-risk managed care contracts between health plans and medical groups has been well documented, but less is known about the nature of financial incentives within those medical groups or their effects on health care utilization. OBJECTIVE: To test whether utilization and cost of health services per enrollee were influenced independently by the compensation method of the enrollee's primary care physician. DESIGN: Survey of medical groups contracting with selected managed care health plans, linked to 1994 plan enrollment and utilization data for adult enrollees. SETTING: Medical groups, major managed care health plans, and their patients/enrollees in the state of Washington. STUDY PARTICIPANTS: Sixty medical groups in Washington, 865 primary care physicians (internal medicine, pediatrics, family practice, or general practice) from those groups and affiliated with 1 or more of 4 managed care health plans, and 200,931 adult plan enrollees. INTERVENTION: The effect of method of primary care physician's compensation on the utilization and cost of health services was analyzed by weighted least squares and random effects regression. MAIN OUTCOME MEASURES: Total visits, hospital days, and per member per year estimated costs. RESULTS: Compensation method was not significantly (P>.30) related to utilization and cost in any multivariate analyses. Patient age (P<.001), female gender (P<.001), and plan benefit level (P<.001) were significantly positively related to visits, hospital days, and per member per year costs. The primary care physician's age was significantly negatively related (P<.001) to all 3 dependent measures. CONCLUSIONS: Compensation method was not significantly related to use and cost of health services per person. Enrollee, physician, and health plan benefit factors were the prime determinants of utilization and cost of health services.


According to the theory of Universal Grammar, the primary linguistic data guides children through an innately specified space of hypotheses. On this view, similarities between child-English and adult-German are as unsurprising as similarities between cousins who have never met. By contrast, experience-based approaches to language acquisition contend that child language matches the input, with nonadult forms being simply less articulated versions of the forms produced by adults. This paper reports several studies that provide support for the theory of Universal grammar, and resist explanation on experience-based accounts. Two studies investigate English-speaking children's productions, and a third examines the interpretation of sentences by Japanese
speaking children. When considered against the input children are exposed to, the findings of these and other studies are consistent with the continuity hypothesis, which supposes that child language can differ from the language spoken by adults only in ways that adult languages can differ from each other.


Increases in the use of hospital emergency departments (EDs) might contribute to crowding at some EDs, higher health care costs, and lower-quality primary care. This study examines the extent to which differences in populations and health system factors account for variations in ED use across U.S. communities. Contrary to popular perceptions, communities with high ED use have fewer numbers of uninsured, Hispanic, and noncitizen residents. Outpatient capacity constraints also contribute to high ED use. However, high ED use in some communities also likely reflects generic preferences for EDs as a source of care for nonurgent problems.


OBJECTIVE: To examine differences in the characteristics of adverse events between English speaking patients and patients with limited English proficiency in US hospitals. SETTING: Six Joint Commission accredited hospitals in the USA. METHOD: Adverse event data on English speaking patients and patients with limited English proficiency were collected from six hospitals over 7 months in 2005 and classified using the National Quality Forum endorsed Patient Safety Event Taxonomy. RESULTS: About 49.1% of limited English proficient patient adverse events involved some physical harm whereas only 29.5% of adverse events for patients who speak English resulted in physical harm. Of those adverse events resulting in physical harm, 46.8% of the limited English proficient patient adverse events had a level of harm ranging from moderate temporary harm to death, compared with 24.4% of English speaking patient adverse events. The adverse events that occurred to limited English proficient patients were also more likely to be the result of communication errors (52.4%) than adverse events for English speaking patients (35.9%). CONCLUSIONS: Language barriers appear to increase the risks to patient safety. It is important for patients with language barriers to have ready access to competent language services. Providers need to collect reliable language data at the patient point of entry and document the language services provided during the patient-provider encounter.


Provider risk sharing was common throughout the 1990s. Recent evidence suggests waning interest, although no information exists that is specific to Medicaid. This paper examines risk-sharing arrangements in Medicaid managed care through a survey of participating plans in eleven states conducted during 2001. Risk sharing is prevalent among Medicaid-participating plans and often involves traditional providers. The "flight from risk" that others describe is not yet apparent in Medicaid, but Medicaid's idiosyncrasies might mean that trends appearing in other lines of business do not apply.


This paper was presented to a Conference on the theme 'The Formulation of Interpretations in Clinical Practice'. It suggests that, impressionistically in line with the identification of psychoanalysis with natural science, an unconscious metaphor which sees interpretation as something like a force inserted on a physical particle has been more influential conceptually than the unconscious metaphor naturally complementary to it, that of interpretation as something like a liquid in flow. The concept of 'the collateral interpretation' is introduced. Loosely speaking, this is what an analyst thinks he would interpret at any given moment. It is tentative, unformed, and changes kaleidoscopically. It accommodates psychoanalytic concepts. It is suggested that examination of the mode of operation of 'the collateral interpretation' is important in understanding the formulation of interpretations. A single session is used for clinical illustration.


Although the US health care system is often touted as one of the best in the world, disparities exist in quality of care received by different populations, in different regions, and across different institutions and clinicians. Initiatives to provide access to health insurance have been a major policy tool to ensure that Americans receive high-quality health care. However, availability of insurance coverage does not automatically lead to high-quality care. This article explores points of vulnerability in the US health care system at which the potential to achieve high-quality care can be lost: (1) access to insurance coverage; (2) enrollment in available insurance plans; (3) access to covered services, clinicians, and health care institutions; (4) choice of plans, clinicians, and health care institutions; (5) access to a consistent source of primary care; (6) access to referral services; and (7) delivery of high-quality health care services. Ensuring high-quality health care requires that each of these "voltage drops" be recognized and addressed.


OBJECTIVE: To determine the impact of interpretation method on outpatient visit length. DESIGN: Time-motion study. SETTING: Hospital-based outpatient teaching clinic. PARTICIPANTS: Patients presenting for scheduled outpatient visits. MEASUREMENTS AND MAIN RESULTS: Over a 6-week study period, a research
assistant recorded the following information for consecutive patient visits: patient age, gender and insurance type; type of interpreter used (none, hospital interpreter, telephone interpreter or patient-supplied interpreter); scheduled visit length; provider type (nurse practitioner; attending physician; resident in postgraduate year 1, 2 or 3, or medical student); provider gender; amount of time the patient spent in the examination room with the provider (provider time); and total time the patient spent in the clinic from check-in to checkout (clinic time). When compared to patients not requiring an interpreter, patients using some form of interpreter had longer mean provider times (32.4 minutes [min] vs 28.0 min, \( P < .001 \)) and clinic times (93.6 min vs 82.4 min, \( P = .002 \)). Compared to patients not requiring an interpreter, patients using a telephone interpreter had significantly longer mean provider times (36.3 min vs 28.0 min, \( P < .001 \)) and clinic times (99.9 min vs 82.4 min, \( P = .02 \)). Similarly, patients using a patient-supplied interpreter had longer mean provider times (34.4 min vs 28.0 min, \( P < .001 \)) and mean clinic times (92.8 min vs 82.4 min, \( P = .027 \)). In contrast, patients using a hospital interpreter did not have significantly different mean provider times (26.8 min vs 28.0 min, \( P = .51 \)) or mean clinic times (91.0 min vs 82.4 min, \( P = .16 \)) than patients not requiring an interpreter.

CONCLUSION: In our setting, telephone and patient-supplied interpreters were associated with longer visit times, but full-time hospital interpreters were not.


OBJECTIVE: We studied physician-patient dyads to determine how physician self-rated Spanish-language ability and cultural competence affect Spanish-speaking patients' reports of interpersonal processes of care. SETTING/PARTICIPANTS: Questionnaire study of 116 Spanish-speaking patients with diabetes and 48 primary care physicians (PCPs) at a public hospital with interpreter services. MEASURES: Primary care physicians rated their Spanish ability on a 5-point scale and cultural competence by rating: 1) their understanding of the health-related cultural beliefs of their Spanish-speaking patients; and 2) their effectiveness with Latino patients, each on a 4-point scale. We assessed patients' experiences using the interpersonal processes of care (IPC) in diverse populations instrument. Primary care physician responses were dichotomized, as were IPC scale scores (optimal vs nonoptimal). We analyzed the relationship between language and two cultural competence items and IPC, and a summary scale and IPC, using multivariate models to adjust for known confounders of communication.

RESULTS: Greater language fluency was strongly associated with optimal IPC scores in the domain of elicitation of and responsiveness to patients, problems and concerns [Adjusted Odds Ratio [AOR], 5.25; 95% confidence interval [CI], 1.59 to 17.27]. Higher score on a language-culture summary scale was associated with three IPC domains - elicitation/responsiveness (AOR, 6.34; 95% CI, 2.1 to 19.3), explanation of condition (AOR, 2.7; 95% CI, 1.0 to 7.34), and patient empowerment (AOR, 3.13; 95% CI, 1.2 to 8.19) and not associated with two more-technical communication domains.

CONCLUSION: Physician self-rated language ability and cultural competence are independently associated with patients' reports of interpersonal process of care in patient-centered domains. Our study provides empiric support for the importance of language and cultural competence in the primary care of Spanish-speaking patients.

Twenty-one million Americans are limited in English proficiency (LEP), but little is known about the effect of medical interpreter services on health care quality. A systematic literature review was conducted on the impact of interpreter services on quality of care. Five database searches yielded 2,640 citations and a final database of 36 articles, after applying exclusion criteria. Multiple studies document that quality of care is compromised when LEP patients need but do not get interpreters. LEP patients' quality of care is inferior, and more interpreter errors occur with untrained ad hoc interpreters. Inadequate interpreter services can have serious consequences for patients with mental disorders. Trained professional interpreters and bilingual health care providers positively affect LEP patients' satisfaction, quality of care, and outcomes. Evidence suggests that optimal communication, patient satisfaction, and outcomes and the fewest interpreter errors occur when LEP patients have access to trained professional interpreters or bilingual providers.


BACKGROUND: About 19 million people in the United States are limited in English proficiency, but little is known about the frequency and potential clinical consequences of errors in medical interpretation. OBJECTIVES: To determine the frequency, categories, and potential clinical consequences of errors in medical interpretation. METHODS: During a 7-month period, we audiotaped and transcribed pediatric encounters in a hospital outpatient clinic in which a Spanish interpreter was used. For each transcript, we categorized each error in medical interpretation and determined whether errors had a potential clinical consequence. RESULTS: Thirteen encounters yielded 474 pages of transcripts. Professional hospital interpreters were present for 6 encounters; ad hoc interpreters included nurses, social workers, and an 11-year-old sibling. Three hundred ninety-six interpreter errors were noted, with a mean of 31 per encounter. The most common error type was omission (52%), followed by false fluency (16%), substitution (13%), editorialization (10%), and addition (8%). Sixty-three percent of all errors had potential clinical consequences, with a mean of 19 per encounter. Errors committed by ad hoc interpreters were significantly more likely to be errors of potential clinical consequence than those committed by hospital interpreters (77% vs 53%). Errors of clinical consequence included: 1) omitting questions about drug allergies; 2) omitting instructions on the dose, frequency, and duration of antibiotics and rehydration fluids; 3) adding that hydrocortisone cream must be applied to the entire body, instead of only to facial rash; 4) instructing a mother not to answer personal questions; 5) omitting that a child was already swabbed for a stool culture; and 6) instructing a mother to put amoxicillin in both ears for treatment of otitis media. CONCLUSIONS: Errors in medical interpretation are common, averaging 19 per clinical encounter, and omissions are the most frequent type. Most errors have potential clinical consequences, and those
committed by ad hoc interpreters are significantly more likely to have potential clinical consequences than those committed by hospital interpreters. Because errors by ad hoc interpreters are more likely to have potential clinical consequences, third-party reimbursement for trained interpreter services should be considered for patients with limited English proficiency.


There have been only two reports of multilingual cochlear implant users to date, and both of these were postlingually deafened adults. Here we report the case of a 6-year-old early-deafened child who is acquiring Cantonese, English and Mandarin in Hong Kong. He and two age-matched peers with similar educational backgrounds were tested using common, standardized tests of vocabulary and expressive and receptive language skills (Peabody Picture Vocabulary Test (Revised) and Reynell Developmental Language Scales version II). Results show that this child is acquiring Cantonese, English and Mandarin to a degree comparable to two classmates with normal hearing and similar educational and social backgrounds. Copyright (c) 2003 Whurr Publishers Ltd.


OBJECTIVE: We sought to determine whether patients or their families could identify adverse events in the emergency department (ED), to characterize patient reports of errors and to compare patient reports to events recorded by health care providers.

METHODS: This was a prospective cohort study in a quaternary care inner city teaching hospital with approximately 40 000 annual visits. ED patients were recruited for participation in a standardized interview within 24 hours of ED discharge and a follow-up interview 3-7 days after discharge. Responses regarding events were tabulated and compared with physician and nurse notations in the medical record and hospital event reporting system. RESULTS: Of 292 eligible patients, 201 (69%) were interviewed within 24 hours of ED discharge, and 143 (71% of interviewees) underwent a follow-up interview 3-7 days after discharge. Interviewees did not differ from the base ED population in terms of age, sex or language. Analysis of patient interviews identified 10 adverse events (5% incident rate; 95% confidence interval [CI] 2.41%-8.96%), 8 near misses (4% incident rate; 95% CI 1.73%-7.69%) and no medical errors. Of the 10 adverse events, 6 (60%) were characterized as preventable (2 raters; kappa = 0.78, standard error [SE] 0.20; 95% CI 0.39-1.00; p = 0.01). Adverse events were primarily related to delayed or inadequate analgesia. Only 4 out of 8 (50%) near misses were intercepted by hospital personnel. The secondary interview elicited 2 out of 10 adverse events and 3 out of 8 near misses that had not been identified in the primary interview. No designation (0 out of 10) of an adverse event was recorded in the ED medical record or in the confidential hospital event reporting system. CONCLUSION: ED patients can identify adverse events affecting their care. Moreover, many of these events are not recorded in the medical record. Engaging patients and their family members in identification of errors may enhance patient safety.

AIM: The overall aim of the study was to examine how policy directives concerning the provision of individualized care were modified in their transformation into practice and the implications this carried for the care provided to patients from different ethnic backgrounds. This paper is concerned with one aspect, namely, examining the nature and effects of communication difficulties between the nurses and South Asian patients and their carers. METHODS: An ethnographic approach was used. The study was undertaken in an English community National Health Service (NHS) Trust serving an ethnically diverse population. It comprised two stages. First, an organizational profile of the trust was undertaken in order to analyse the local policy context. Data were collected by means of in-depth interviews with managers and a review of policy documentation and caseload profiles. Second, a participant observational study was undertaken focusing on six district nursing teams. Purposive sampling was used to identify four teams with high ethnic minority caseloads and two teams with predominantly white ethnic majority caseloads. Interview transcripts and fieldnotes were analysed by drawing upon the principles of dimensional analysis. FINDINGS: Over half of South Asian patients had little or no understanding of spoken English with women and older people the least likely to speak English. The limited use of professional interpreters and the concomitant heavy reliance on family members to translate highlighted how ethnic minority patients and carers who were not fluent in English were disadvantaged. The observed language barriers suggested that the content of advice on matters such as compliance with treatment regimes might not be fully understood. Psychological support of patients and carers was severely restricted. Moreover, the fact that follow-up visits were on occasions made to patients for whom there was no one available to interpret constrained on-going assessment of patients' needs. CONCLUSIONS: The findings raise concerns regarding the quality of care provided to patients and carers who are nonusers of English and provide evidence of inequalities in service provision. However, not speaking English should not be a barrier to appropriate and effective nursing care. District nurses need to appreciate their responsibility to provide equitable services irrespective of a patient's linguistic background and seek to overcome the disadvantage experienced by ethnic minority patients.


Foreign-born adults in Los Angeles County, California, constituted 45 percent of the county's population ages 18-64 but accounted for 33 percent of health spending in 2000. Similarly, the undocumented constituted 12 percent of the nonelderly adult population but accounted for only 6 percent of spending. Extrapolating to the nation, total spending by the undocumented is 6.4 billion dollars, of which only 17 percent (1.1 billion dollars) is paid for by public sources. The foreign-born (especially the undocumented) use disproportionately fewer medical services and contribute less to health care costs in
relation to their population share, likely because of their better relative health and lack of health insurance.


BACKGROUND: Patients with limited English proficiency (LEP) have more difficulty communicating with health care providers and are less satisfied with their care than others. Both interpreter- and language-concordant clinicians may help overcome these problems but few studies have compared these approaches. OBJECTIVE: To compare self-reported communication and visit ratings for LEP Asian immigrants whose visits involve either a clinic interpreter or a clinician speaking their native language. DESIGN: Cross-sectional survey-response rate 74%. PATIENTS: Two thousand seven hundred and fifteen LEP Chinese and Vietnamese immigrant adults who received care at 11 community-based health centers across the U.S. MEASUREMENTS: Five self-reported communication measures and overall rating of care. RESULTS: Patients who used interpreters were more likely than language-concordant patients to report having questions about their care (30.1% vs 20.9%, P<.001) or about mental health (25.3% vs 18.2%, P=.005) they wanted to ask but did not. They did not differ significantly in their response to 3 other communication measures or their likelihood of rating the health care received as "excellent" or "very good" (51.7% vs 50.9%, P=.8). Patients who rated their interpreters highly ("excellent" or "very good") were more likely to rate the health care they received highly (adjusted odds ratio 4.8, 95% confidence interval, 2.3 to 10.1).

CONCLUSIONS: Assessments of communication and health care quality for outpatient visits are similar for LEP Asian immigrants who use interpreters and those whose clinicians speak their language. However, interpreter use may compromise certain aspects of communication. The perceived quality of the interpreter is strongly associated with patients' assessments of quality of care overall.


To date, the reverse abdominoplasty has been reported infrequently as a procedure to improve the upper abdominal wall contour. In this report, we report on our experience with the reverse abdominoplasty and on a review of the English-language literature by using PubMed to draw conclusions regarding optimal indication for this procedure, results, and complications. Over a 3-year period, we have performed the reverse abdominoplasty in 7 patients that were all dissatisfied with their upper abdominal contour after previous abdominal wall contouring procedures. Five patients had preexisting submammary scars. The mean follow-up was 20 months (range 9-29 months). In all but one patient there was a significant improvement of the upper abdominal wall contour. The esthetic result as measured with the Strasser grading system was good in 4 cases, mediocre in 2 cases, and poor in 1 case. The mean patient's satisfaction was 6.3 (range 1-10) as measured on a Visual Analog Scale. In 3 patients there were complications: in 2 patients a minor complication (wound dehiscence and a small seroma) and in 1 patient a more severe complication (wound dehiscence with ultimately sagging of scars and submammary sulcus) with a poor esthetic final result. In the English-language literature
the reverse abdominoplasty procedure has been reported infrequently both for purely esthetic reasons and for reconstructive reasons with good results and few complications. Based upon our results and those as reported in the English-language literature, we conclude that there is a clear though limited indication for the reverse abdominoplasty procedure in a selected group of patients: redundant upper abdominal wall tissue after a previous abdominoplasty or liposuction, preferably with preexistent submammary scars.


The health insurance market consists of three distinct segments--individual, small group, and large group--each governed by different economic and regulatory structures. A number of border-crossing techniques have arisen for avoiding the burdens of one segment and capitalizing on the benefits of others. Drawing from extensive qualitative research into the functioning of existing market structures, this paper describes these techniques and their purposes and effects. This road map helps to identify which reform proposals seek to produce true economic efficiencies and which have the potential to undermine previous reform objectives.


OBJECTIVES. More than 31 million persons living in the United States do not speak English, therefore language discordance between the clinician and patient may hinder delivery of cost-effective medical care. A new language service was developed in which interpreters are trained in the skills of simultaneous interpretation commonly used at international conferences. The interpreters are linked from a remote site to headsets worn by the clinician and patient through standard communication wires. The service is called "remote-simultaneous interpretation," to contrast it with a traditional method of an interpreter being physically present at the interview and interpreting consecutively "proximate-consecutive interpretation." The aim of this study is to assess in a randomized protocol the quality of communication, interpretation, and level of patient, interpreter, and physician satisfaction with these two language services. METHODS. The first postpartum visit with each of 49 mothers and their new born babies was assigned randomly to proximate-consecutive interpretation (control) or to remote-simultaneous
interpretation (experimental). Main outcome measures included (1) the number of physician and mother utterances in the visit, (2) the quality of the interpretation, and (3) physician, interpreter, and mother preferences between the two services. RESULTS. The remote-simultaneous interpreter service averaged 8.3 (10%) more physician utterances (95% confidence interval [CI] 4.3, 12.4) and 9.1 (28%) more mother utterances (95% CI 6.1, 12.1). On average, there were 2.8 (12%) fewer inaccuracies of physician utterances in experimental visits compared with control visits (95% CI -5.9, 0.4) and 3.0 (13%) fewer inaccuracies of mother utterances in experimental visits compared with control visits (95% CI -5.4, -0.6). Mothers and physicians significantly preferred the remote-simultaneous service to proximate-consecutive interpretation service. Interpreters stated that they thought mothers and physicians better understood each other using the remote-simultaneous service, although the interpreters preferred to work with the proximate-consecutive service. CONCLUSIONS. Using remote-simultaneous interpretation to improve the quality of communication in discordant-language encounters promises to enhance delivery of medical care for the millions of non-English-speaking patients in the United States.


International data on quality of medical care allow countries to compare their performance to that of other countries. The Commonwealth Fund International Working Group on Quality Indicators collected data on twenty-one indicators that reflect medical care in Australia, Canada, New Zealand, England, and the United States. The indicators include five-year cancer relative survival rates, thirty-day case-fatality rates after acute myocardial infarction and stroke, breast cancer screening rates, and asthma mortality rates. No country scores consistently the best or worst overall. Each country has at least one area of care where it could learn from international experiences and one area where its experiences could teach others.


PURPOSE: Provision of interpreter services for non-English-speaking patients is a federal requirement. We surveyed clinicians to describe their experience using interpreters. SUBJECTS AND METHODS: In this cross-sectional study we surveyed clinicians in three academic outpatient settings in San Francisco (N = 194) regarding their most recent patient encounter which involved an interpreter. Questions about the visit
included type of interpreter, satisfaction with content of clinical encounter, potential problems, and frequency of need. Previous training in interpreter use, languages spoken, and demographics were also asked. Questionnaires were self-administered in approximately 10 minutes. RESULTS: Of 194 questionnaires mailed, 158 were completed (81% response rate) and 67% were from resident physicians. Most respondents (78%) were very satisfied or satisfied with the medical care they provided, 85% felt satisfied with their ability to diagnose a disease and treat a disease, but only 45% were satisfied with their ability to empower the patient with knowledge about their disease, treatment, or medication. Even though 71% felt they were able to make a personal connection with their patient, only 33% felt they had learned about another culture as a result of the encounter. Clinicians reported difficulties eliciting exact symptoms (70%), explaining treatments (44%), and eliciting treatment preferences (51%). Clinicians perceived that lack of knowledge of a patient's culture hindered their ability to provide quality medical care and only 18% felt they were unable to establish trust or rapport. Previous training in interpreter use was associated with increased use of professional interpreters (odds ratio [OR], 3.2; 95% confidence interval [CI], 1.4 to 7.5) and increased satisfaction with medical care provided (OR, 2.6; 95% CI, 1.1 to 6.6).

CONCLUSIONS: Clinicians reported communication difficulties affecting their ability to understand symptoms and treat disease, as well as their ability to empower patients regarding their healthcare. Training in the use of interpreters may improve communication and clinical care, and thus health outcomes.


Kottow, M. (2004). "The battering of informed consent." J Med Ethics 30(6): 565-9. Autonomy has been hailed as the foremost principle of bioethics, and yet patients' decisions and research subjects' voluntary participation are being subjected to frequent restrictions. It has been argued that patient care is best served by a limited form of paternalism because the doctor is better qualified to take critical decisions than the patient, who is distracted by illness. The revival of paternalism is unwarranted on two grounds: firstly, because prejudging that the sick are not fully autonomous is a biased and unsubstantial view; secondly, because the technical knowledge of healthcare professionals does not include the ethical qualifications and prerogative to decide for others. Clinical research settings are even more prone to erode subjects' autonomy than clinical settings because of the tendency and temptation to resort to such practices as shading the truth when consent to participation is sought, or waiving consent altogether when research is done in emergency settings. Instead of supporting such dubious practices with unconvincing arguments, it would seem to be the task of bioethics to insist on reinforcing autonomy.

Research amply documents that language barriers impede access to health care, compromise quality of care, and increase the risk of adverse health outcomes among patients with limited English proficiency. Federal civil rights policy obligates health care providers to supply language services, but wide gaps persist because insurers typically do not pay for interpreters, among other reasons. Health care financing policies should reinforce existing medical research and legal policies: Payers, including Medicaid, Medicare, and private insurers, should develop mechanisms to pay for interpretation services for patients who speak limited English.


**OBJECTIVE:** To describe the utilization of various methods of language interpretation by Spanish-speaking patients in an academic medical clinic and to determine patients' and physicians' satisfaction with these methods. **METHODS:** Survey administered to medical residents and Spanish-speaking patients asking about their experience and satisfaction with various methods of language interpretation. **MAIN RESULTS:** Both patients and residents had the highest level of satisfaction for professional interpreters (92.4% vs 96.1% reporting somewhat or very satisfactory, p = .17). In contrast, patients were significantly more satisfied than residents with using family members and friends (85.1% vs 60.8%, p < .01). Physicians and patients agreed that accuracy, accessibility, and respect for confidentiality were highly important characteristics of interpreters (>90% of both groups reporting somewhat or very important). However, patients were more concerned than residents about the ability of the interpreter to assist them after the physician visit (94% vs 45.1%, p < 0.01). **CONCLUSIONS:** Using family members and friends as interpreters for Spanish-speaking patients should be more seriously considered; however, in order to optimize patient satisfaction, differences between patients and providers should be taken into account when using interpretation in medical settings.


**OBJECTIVES:** Patients with limited English proficiency confront multiple barriers to health care access in the United States. Appropriate language services for families with limited English proficiency are essential; however, little is known about pediatricians' use of language services. The objective of this study was to examine pediatricians' provision of language services to patients with limited English proficiency and the pediatrician, practice, and state characteristics associated with use of these services. **METHODS:** Data were obtained from the Periodic Survey of Fellows No. 60, a nationally representative survey of members of the American Academy of Pediatrics. A total of 1829 surveys were mailed, and responses were obtained from 58%. Use of 6 language services was assessed. Factors associated with language services use were examined after adjusting for physician, practice, and state characteristics. **RESULTS:** Bilingual family members (70%) and bilingual staff (58%) were the most frequently reported language services; 40% of respondents report the use of professional interpreters, 28% use telephone interpreters, and 35% of practices report provision of translated written materials. Pediatricians in smaller and rural practices and in states with higher proportions of limited English proficiency persons report less use of professional interpreters.
Pediatricians in states with third-party reimbursement for language services are more likely to report use of professional interpreters. CONCLUSIONS: Most pediatricians report using untrained interpreters to communicate with limited English proficiency patients and their families. Pediatricians in regions with high proportions of limited English proficiency persons may be less likely to provide appropriate language services. Third-party reimbursement for professional language services may increase the use of trained interpreters and quality of care.

OBJECTIVES: To develop and implement a method to evaluate the quality of medical interpretation in a pediatric outpatient setting and explore the patterns and correlates of errors and failures in translation. DESIGN, SETTING, AND PATIENTS: Observational study of a convenience sample of 13 Spanish-speaking families attending pediatric outpatient clinics at an urban teaching hospital, their English-speaking providers, and interpreters. Visits were audiotaped and transcribed. The transcripts were divided into segments consisting of continuous sections of dialogue in a single language, plus any translation of that dialogue, and segments were coded for characteristics of the translation, word count, and the identity of the speakers. MAIN OUTCOME MEASURES: Translation quality on an ordinal scale derived from a set of nominal codes. RESULTS: We found that 66.1% of segments in which translation should have occurred were translated with substantial errors or omissions or not translated at all. In 29.8% of segments, the interpreter engaged in speech unrelated to interpretation. Quality of interpretation was inversely associated with the word count per segment and, independently, whether the interpreter engaged in speech acts which did not consist of interpretation, which we call "role exchange." We give several examples and qualitative discussion of "role exchange" and show that it not necessarily associated with mistranslation but may have egregious consequences. CONCLUSIONS: Interpreters who lack appropriate training fail to interpret accurately. Engaging in speech behaviors other than interpreting is associated with a higher rate of errors.

Many studies demonstrate that cancer incidence and mortality patterns among Asian Americans are heterogeneous, but national statistics on cancer for Asian ethnic groups are not routinely available. This article summarizes data on cancer incidence, mortality, risk factors, and screening for 5 of the largest Asian American ethnic groups in California. California has the largest Asian American population of any state and makes special efforts to collect health information for ethnic minority populations. We restricted our analysis to the 4 most common cancers (prostate, breast, lung, colon/rectum) and for the 3 sites known to be more common in Asian Americans (stomach, liver, cervix). Cancer incidence and mortality were summarized for 5 Asian American ethnic groups in California in order of population size (Chinese, Filipino, Vietnamese, Korean, and Japanese). Chinese Americans had among the lowest incidence and death rate from all cancer combined; however, Chinese women had the highest lung cancer death rate.
Filipinos had the highest incidence and death rate from prostate cancer and the highest death rate from female breast cancer. Vietnamese had among the highest incidence and death rates from liver, lung, and cervical cancer. Korean men and women had by far the highest incidence and mortality rates from stomach cancer. Japanese experienced the highest incidence and death rates from colorectal cancer and among the highest death rates from breast and prostate cancer. Variations in cancer risk factors were also observed and were for the most part consistent with variations in cancer incidence and mortality. Differences in cancer burden among Asian American ethnic groups should be considered in the clinical setting and in cancer control planning.


The objective of this study was to evaluate the utilization and financial performance of children's services after the Balanced Budget Act of 1997. The author analyzed these performance factors by hospital ownership, HMO penetration, and disproportionate share hospitals. Using data from California hospitals and conducting an analysis from 1997 to 1999, the author found that public hospitals were able to increase their profits from pediatric and neonatal intensive care services. The study also revealed that DSH hospitals located in high HMO penetration markets reduced their operating losses in nursery and pediatric services.


PURPOSE: Many children with specific language impairment (SLI) demonstrate delays in print knowledge, yet the reasons for these delays are not well understood. The present study investigates the degree to which developmental risk factors and home literacy experiences predict the print knowledge of children with SLI. Methods Direct child measures, maternal reports, and observations from 41 mothers and their preschool-aged children with SLI assessed child language and attentional difficulties, family SES, the frequency and quality of home literacy, and children's print knowledge. RESULTS: Hierarchical multiple regression analyses revealed that individual differences in children's oral language abilities did not explain individual variability in print knowledge. The quality of home literacy was the only significant predictor of print knowledge, but its influence was moderated by children's attentional difficulties. CONCLUSIONS: Findings reveal that language difficulty is not an adequate explanation for the print knowledge delays of children with SLI, and suggest that literacy experiences may play an important role in the print knowledge attainment of children with SLI. The quality of home literacy appears to foster print knowledge by compensating for attentional difficulties in children with SLI, but is not sufficient to promote print knowledge in children with SLI without attentional difficulties.

The Injection Drug User Quality of Life Scale (IDUQOL) measures the unique and individual circumstances that determine the quality of life of injection drug users. This paper reports the psychometric properties of the Spanish version, for drug dependent persons with or without injectable consumption using a revised instrument: Drug user Quality of Life Scale-Spanish (DUQOL-Spanish). We studied 169 outpatients in 9 Spanish drug treatment centers. Factor analysis, internal consistency, test-retest reliability and criterion-related validity were assessed. The results show the essential unidimensionality of the scale, which supports the use of a total score. Both internal consistency (Cronbach's alpha: 0.86), and test-retest reliability (r=0.79) of the total score were high. Criterion-related validity supports the interpretation of the DUQOL-Spanish total score as measuring a construct consistent with quality of life. This study suggests that the DUQOL-Spanish is a valid instrument to measure subjective quality of life in Spanish drug users, and allows the identification of life areas that are considered by the patient important to change in order to improve their quality of life.


This study reports on a comparison of the use and knowledge of tense-marking morphemes in English by first language (L1), second language (L2) and specifically language-impaired (SLI) children. The objective of our research was to ascertain whether the L2 children's tense acquisition patterns were similar or dissimilar to those of the L1 and SLI groups, and whether they would fit an (Extended) Optional Infinitive profile, or an L2-based profile, e.g., the Missing Surface Inflection Hypothesis. Results showed that the L2 children had a unique profile compared with their monolingual peers, which was better characterized by the Missing Surface Inflection Hypothesis. At the same time, results reinforce the assumption underlying the (Extended) Optional Infinitive profile that internal constraints on the acquisition of tense could be a component of L1 development, with and without SLI.


People of Bangladeshi origin in the UK continue to experience poorer health and poorer healthcare than other sections of the community. Although communication with medical and nursing staff has long been recognised as key to the provision of effective healthcare services, efforts to overcome communication problems have often been minimal: many practitioners and patients rely on informal interpreters, usually family members, to assist them, despite the shortcomings of these arrangements. The present paper examines the experiences of 12 Bangladeshi people in Bradford, obtained during the course of a wider evaluation of diabetes services. All but one of the in-depth interviews were carried out in Sylheti and explored respondents' experiences of diabetes and local services. Software-assisted analysis of the transcripts followed a framework approach. It was found that, in the absence of alternatives, informal interpreting support was a necessity for many people: making appropriate arrangements frequently involved disruption to family members' routines and responsibilities, yet access to healthcare was often not possible without them. Despite the acknowledged problems, informal arrangements were often...
preferred: the benefits included greater privacy, support in the consultation, and a shared understanding of advice and instructions. Many patients nonetheless received poor quality care, although this appeared to be related less to language difficulties than to professional attitudes and methods of working.


OBJECTIVE: Physicians-in-training today are learning in an ethical environment that is unprecedented in its complexity. There is a call for new approaches in preparing medical students and residents for the ethical and professional issues they will encounter. The perspectives of physicians-in-training at different levels regarding the level of curricular attention needed for emerging bioethics concepts, practical informed consent considerations, and the care of special populations are unknown. METHOD: The authors performed a hypothesis-driven, confidential survey study to assess perceived needs and preferences among medical students and residents related to medical ethics education at the University of New Mexico School of Medicine. RESULTS: A total of 336 physicians-in-training volunteered (62% response rate). Overall, strong interest was expressed for increased curricular attention to the domains of bioethics principles, informed consent, and care of special populations. Women students expressed greater interest generally. For certain domains, clinical students expressed relatively less curricular need and psychiatry and primary care residents expressed relatively greater curricular need. Two of the four hypotheses were supported, a third received partial support, and a fourth was not supported by the findings. DISCUSSION: To be valuable and effective, new ethics curricular approaches must be responsive to the current complex ethical environment and attentive to the preferences of medical students and residents of both genders, at different stages of training, with different patient care responsibilities. This hypothesis-driven study provides guidance for the inclusion of novel and important ethics domains in training curricula across medical school and diverse residency programs.


This paper examines the use and abuse of the medical loss ratio in the contemporary health care system and health policy debate. It begins with a survey of the ways in which the medical loss ratio has been interpreted to be something it is not, such as a measure of quality or efficiency. It then analyzes key organizational features of the emerging health care system that complicate measures of financial performance, including integration between payers and providers, diversification of payers across multiple products and distribution channels, and geographic expansion across metropolitan and state lines. These issues are illustrated using medical loss ratios from a range of nonprofit and for-profit health plans. The paper then sketches a strategy for improving the public's understanding of health plan performance as an alternative to continued reliance on the flawed medical loss ratio. This strategy incorporates data on structure and process, service quality, and financial performance.

BACKGROUND. In California, it is common for health maintenance organizations
(HMOs) to contract with large medical groups that are paid through capitation and are
responsible for managing a full spectrum of medical services. METHODS. We studied
six large medical groups in California--Bristol Park Medical, Friendly Hills HealthCare
Network, HealthCare Partners Medical Group, Mullikin Medical Centers, Palo Alto
Medical Foundation, and San Jose Medical Group--that are paid through capitation and
that are growing as a result of contracts with managed-care organizations. We conducted
interviews and obtained data on factors such as patient enrollment, capitation and other
revenue, numbers of days spent by enrollees in the hospital, and numbers of visits to
physicians per enrollee. RESULTS. Between 1990 and 1994, the number of HMO
enrollees whose care was paid for through capitation in the six medical groups increased
by 91 percent, from 398,359 to 759,474. In 1994, the mean number of hospital days per
1000 HMO enrollees ranged from 120 to 149 for non-Medicare patients and from 643 to
936 days for Medicare patients. By comparison, in 1993 the mean numbers of hospital
days per 1000 HMO enrollees not covered by Medicare were 232 for California and 297
for the United States; for HMO enrollees covered by Medicare, the numbers were 1337
for California and 1698 for the United States. In 1994, the average annual number of
visits to physicians for HMO patients in the six groups not covered by Medicare ranged
from 3.1 to 3.9; for Medicare patients, it ranged from 7.2 to 9.3; these rates were slightly
lower than statewide and national rates. Four of the groups have sold their assets (such as
facilities, supplies, equipment, and patients' charts) to outside investors; the physicians
remain employed by physician-owned professional corporations. CONCLUSIONS.
Medical groups paid through capitation offer a model for the status of physicians in
managed-care systems that differs from the employee status offered by staff-model
HMOs and the subcontractor status offered by HMOs that negotiate directly with
individual physicians. Despite their growth, such medical groups in California face
substantial challenges, such as obtaining the financial assets necessary to sustain rapid
growth.


The proportion of the U.S. population with limited English proficiency is growing.
Physicians often find themselves caring for patients with limited English proficiency in
settings with limited language services. There has been little exploration of the decisions
physicians face when providing care across language barriers. The authors offer a
conceptual framework to aid physicians in thinking through difficult choices about
language services and provide responses to common questions encountered in the care of
patients with limited English proficiency. Specifically, they describe 4 factors that should
inform the decision to call an interpreter (the clinical situation, degree of language gap,
available resources, and patient preference), discuss who may be an appropriate
interpreter, and offer strategies for when a professional interpreter is not available. The
authors use a hypothetical case to illustrate how decisions about language services may
evolve over the course of an interaction. This conceptual and practical approach can help
clinicians to improve the quality of care provided to patients with limited English proficiency.


**CONTEXT:** Health literacy is a measure of patients' ability to read, comprehend, and act on medical instructions. Poor health literacy is common among racial and ethnic minorities, elderly persons, and patients with chronic conditions, particularly in public-sector settings. Little is known about the extent to which health literacy affects clinical health outcomes. **OBJECTIVES:** To examine the association between health literacy and diabetes outcomes among patients with type 2 diabetes. **DESIGN, SETTING, AND PARTICIPANTS:** Cross-sectional observational study of 408 English- and Spanish-speaking patients who were older than 30 years and had type 2 diabetes identified from the clinical database of 2 primary care clinics of a university-affiliated public hospital in San Francisco, Calif. Participants were enrolled and completed questionnaires between June and December 2000. We assessed patients' health literacy by using the short-form Test of Functional Health Literacy in Adults (s-TOFHLA) in English or Spanish. **MAIN OUTCOME MEASURES:** Most recent hemoglobin A1c (HbA1c) level. Patients were classified as having tight glycemic control if their HbA1c was in the lowest quartile and poor control if it was in the highest quartile. We also measured the presence of self-reported diabetes complications. **RESULTS:** After adjusting for patients' sociodemographic characteristics, depressive symptoms, social support, treatment regimen, and years with diabetes, for each 1-point decrement in s-TOFHLA score, the HbA1c value increased by 0.02 (P = .02). Patients with inadequate health literacy were less likely than patients with adequate health literacy to achieve tight glycemic control (HbA1c < 7.2%; adjusted odds ratio [OR], 0.57; 95% confidence interval [CI], 0.32-1.00; P = .05) and were more likely to have poor glycemic control (HbA1c ≥ 9.5%; adjusted OR, 2.03; 95% CI, 1.11-3.73; P = .02) and to report having retinopathy (adjusted OR, 2.33; 95% CI, 1.19-4.57; P = .01). **CONCLUSIONS:** Among primary care patients with type 2 diabetes, inadequate health literacy is independently associated with worse glycemic control and higher rates of retinopathy. Inadequate health literacy may contribute to the disproportionate burden of diabetes-related problems among disadvantaged populations. Efforts should focus on developing and evaluating interventions to improve diabetes outcomes among patients with inadequate health literacy.


This paper reports an identification technique that detects scripts and languages of noisy and degraded document images. In the proposed technique, scripts and languages are identified through the document vectorization, which converts each document image into a document vector that characterizes the shape and frequency of the contented character or word images. Document images are vectorized by using vertical component cuts and character extremum points, which are both tolerant to the variation in text fonts and styles, noise, and various types of document degradation. For each script or language under study, a script or language template is first constructed through a training process.
Scripts and languages of document images are then determined according to the distances between converted document vectors and the pre-constructed script and language templates. Experimental results show that the proposed technique is accurate, easy for extension, and tolerant to noise and various types of document degradation.


Statistical natural language processors have been the focus of much research during the past decade. The main advantage of such an approach over grammatical rule-based approaches is its scalability to new domains. We present a statistical NLP for the domain of radiology and report on methods of knowledge acquisition, parsing, semantic interpretation, and evaluation. Preliminary performance data are given. A discussion of the perceived benefit, limitations and future work is presented.


Different activation loci have been reported for language processing in unilingual Chinese and unilingual English participants, as well as in bilingual readers of English and French, two alphabetic languages. Nevertheless, the extant imaging work on Mandarin-English bilinguals favors common neural substrates for English and Chinese, languages with contrasting oral and written forms. We investigated the phonological processes in reading for English-Chinese bисcriptals using a homophone matching task with parallel behavioral (n = 28) and fMRI (n = 6) experiments. Unlike previous reports, we observed distinct regions of activation for Mandarin in the left and right frontal lobes, the left temporal lobe, and the right occipital lobe, plus distinct regions of activation for English bilaterally in both the frontal and parietal lobes. The implications of these novel findings are discussed with reference to language representation in bilinguals.


A state minority health policy report card may provide an important tool for evaluating and promoting state policies to reduce health disparities. This study develops criteria that can form the basis of such a state report card and assesses the performance of all fifty states on these measures. The results indicate wide variation among states, with geographic region being a significant predictor of performance on all four measures. Future research should be conducted on other predictors of state variation in minority health policy and connections between state policy and health outcomes for minorities.


A review of the literature reveals few studies that focus on the challenge of language barriers in primary care settings. Recognizing the need for a national consensus on cultural and linguistic standards for health care in the United States, the Office of Minority Health recently released a set of standards for culturally and linguistically
appropriate services (CLAS). These standards were utilized to examine the linguistic services available at eight ambulatory care centers in a small New England state in an effort to determine compliance with recommended national standards. Although myriad studies have focused on provision of linguistically appropriate care in emergency rooms (ERs), few studies have specifically examined ambulatory care settings. Numerous strategies have been adopted by individual clinics in an attempt to deal effectively with linguistic barriers. Yet without clear national regulations and dedicated funding for interpreter services, a large spectrum of services exists. Survey data were obtained from on-site visits at select community health clinics to ascertain availability, need, and utilization of linguistic services for patients with limited English proficiency. The majority of patients served by the clinics surveyed were predominantly Spanish-speaking. Results reveal that although most of the clinics provided informal mechanisms of interpreter services, few directly addressed linguistic services as a component of culturally competent care.


BACKGROUND: A decade ago, the administrative costs of health care in the United States greatly exceeded those in Canada. We investigated whether the ascendancy of computerization, managed care, and the adoption of more businesslike approaches to health care have decreased administrative costs. METHODS: For the United States and Canada, we calculated the administrative costs of health insurers, employers' health benefit programs, hospitals, practitioners' offices, nursing homes, and home care agencies in 1999. We analyzed published data, surveys of physicians, employment data, and detailed cost reports filed by hospitals, nursing homes, and home care agencies. In calculating the administrative share of health care spending, we excluded retail pharmacy sales and a few other categories for which data on administrative costs were unavailable. We used census surveys to explore trends over time in administrative employment in health care settings. Costs are reported in U.S. dollars. RESULTS: In 1999, health administration costs totaled at least 294.3 billion dollars in the United States, or 1,059 dollars per capita, as compared with 307 dollars per capita in Canada. After exclusions, administration accounted for 31.0 percent of health care expenditures in the United States and 16.7 percent of health care expenditures in Canada. Canada's national health insurance program had overhead of 1.3 percent; the overhead among Canada's private insurers was higher than that in the United States (13.2 percent vs. 11.7 percent). Providers' administrative costs were far lower in Canada. Between 1969 and 1999, the share of the U.S. health care labor force accounted for by administrative workers grew from 18.2 percent to 27.3 percent. In Canada, it grew from 16.0 percent in 1971 to 19.1 percent in 1996. (Both nations' figures exclude insurance-industry personnel.) CONCLUSIONS: The gap between U.S. and Canadian spending on health care administration has grown to 752 dollars per capita. A large sum might be saved in the United States if administrative costs could be trimmed by implementing a Canadian-style health care system.

The threat of steep tax hikes has torpedoed the debate over national health insurance. Yet according to our calculations, the current tax-financed share of health spending is far higher than most people think: 59.8 percent. This figure (which is about fifteen percentage points higher than the official Centers for Medicare and Medicaid Services [CMS] estimate) includes health care-related tax subsidies and public employees’ health benefits, neither of which are classified as public expenditures in the CMS accounting framework. U.S. tax-financed health spending is now the highest in the world. Indeed, our tax-financed costs exceed total costs in every nation except Switzerland. But the sub rosa character of much tax-financed health spending in the United States obscures its regressivity. Public spending for care of the poor, elderly, and disabled is hotly debated and intensely scrutinized. But tax subsidies that accrue mostly to the affluent and health benefits for middle-class government workers are mostly below the radar screen. National health insurance would require smaller tax increases than most people imagine and would make government's role in financing care more visible and explicit.


Is child analysis really analysis? The child patient does not free associate, communicates to the analyst in large measure nonverbally, and operates from a different psychic organization than the adult. Nevertheless, child and adult analysis share the same basic principles, despite different techniques. Using clinical examples from Jeremy's analysis, I discuss how child analysis could benefit from greater use of analysis of transference and analysis of defense. I then discuss recent questions about the place of verbalization and interpretation in child analysis. This issue parallels polarities in adult theory concerning insight and relationship. Analysts should pay more attention to the similarities between child and adult analysis, so that information can be shared between both subspecialties.