Setting the Agenda

for Research on Cultural Competence in Health Care

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Part One

Introduction and Key Findings

I. INTRODUCTION

Context of Diversity and Cultural Competence in Health Care

The steadily increasing diversity of the United States affects health care providers and institutions, from small rural towns to large urban centers. The impact of this diversity means that every day, health care providers encounter, and must learn to manage, complex differences in communication styles, attitudes, expectations, and world views. Decades of literature from the social and clinical sciences have documented the details, effects, and potential remedies to issues that arise when different cultures encounter each other.

Health care providers take many different approaches to bridge barriers to communication and understanding that stem from racial, ethnic, cultural and linguistic differences. In recent years, the notion of *cultural competence* has come to encompass both interpersonal and organizational interventions and strategies that seek to facilitate the achievement of clinical and public health goals when those differences come into play.

There have been many attempts to describe and quantify cultural competence in health care. These include formal definitions; model programs; laws, regulations, and standards; performance measures and other evaluative criteria. But what does cultural competence actually *accomplish*? Does it make a difference to patients and to health care delivery and health outcomes? This project looks at the question of what impact cultural competence interventions have on the delivery of health care and health outcomes, and investigates the opportunities and barriers that affect how further research in this area might be conducted.

The CLAS Standards and Cultural Competence Research Agenda Projects

This document is the final report for the Cultural Competence Research Agenda project, sponsored by the U.S. Department of Health and Human Services Office of Minority Health (OMH) and Agency for Healthcare Research and Quality (AHRQ) to examine how cultural competence affects health care delivery and health outcomes. It completes a process begun in 1998 with the OMH-sponsored development of national standards for culturally and linguistically appropriate services (CLAS) in health care. The CLAS standards were published in the *Federal Register* in December 2000 (U.S. Department of Health and Human Services Office of the Secretary, 2000), and have become the basis for subsequent government and private sector activities to define, implement, and evaluate cultural competence activities among health care providers.

The CLAS standards were initially derived from an analysis of current practice and policy on cultural competence, and further shaped by the input and expertise of health care providers, policymakers, researchers, advocates, and consumers. The 14 standards are organized by themes: Culturally Competent Care (standards 1-3), Language Access Services (standards 4-7), and Organizational Supports for Cultural Competence (standards 8-14). Standards 1-7 address interventions that have the most direct impact on clinical care; and standards 8-14 address organizational structures, policies and processes that support the implementation of standards 1-7.

The CLAS standards were developed to provide a common understanding and consistent definitions of culturally and linguistically appropriate services in health care. They are intended to offer a broad and practical framework for the implementation of services and organizational structures that can help health care providers be responsive to the cultural and linguistic issues presented by diverse populations. While

aimed primarily at health care organizations, individual clinicians are also encouraged to use the standards to make their practices more culturally and linguistically accessible. The standards are intended to be inclusive of all cultures and not limited to any particular population group or sets of groups; however, they are especially designed to address the needs of racial, ethnic, and linguistic population groups that experience unequal access to health services.

It was the understanding of the CLAS standards sponsors that wide adoption of cultural competence activities, as described in the standards, would ideally be supported by research that makes a link between the performance of those activities, improved health care delivery and better health outcomes. Many health care providers and policymakers have fundamental questions about the intrinsic and relative value of different cultural competence methods and programs. These questions may relate to:

- *Access and outcomes* (which interventions increase access for culturally and linguistically diverse populations to health care services and/or improve their health outcomes?)
- *Quality and reduction in errors* (which interventions increase the provision of appropriate care to and/or reduce the incidence of medical errors among diverse populations?)
- *Cost* (which interventions are cost effective—e.g., reduce diagnostic testing and emergency room use or increase preventive services lowering future health costs?)
- *Comparative analyses* (which approaches or interventions work best under which circumstances?)

OMH and AHRQ sponsored the development of a health services research agenda on cultural competence in health care to promote the creation of an evidence base that would address these questions.

Objectives of Cultural Competence Research

How best to pursue further research on cultural competence interventions depends greatly on the kinds of questions stakeholders want answers to. Different stakeholders may have different informational needs, and these needs, while convergent at times, may vary in the order of importance from one stakeholder group to the next.

For example, basic definitions and parameters are needed for every category of cultural competence intervention. These definitions are critical, not only to support basic program design and evaluation, but also to facilitate the evaluation of additional research on outcomes where standard definitions are necessary for comparability of results. Research required to produce these definitions and identify the standard elements of interventions is not methodologically difficult, but some stakeholders may perceive this work as less important because it does not directly address outcomes that are more important to them. It is likely that this type of research will be of greatest interest to those attempting to standardize interventions for the purposes of quality control; regulators and standard setters; individuals who design and implement cultural competence interventions; and investigators who need standard definitions for conducting cultural competence research.

Stakeholders who are primarily interested in the success of the clinical encounter (e.g., patients, families, and clinical staff), may have more interest in the impact that cultural competence interventions have on what are often called intermediary outcomes (e.g., comprehension, satisfaction, adherence to medication and lifestyle recommendations, appropriate utilization). Those who pay for health care are especially interested in how cultural competence interventions affect utilization of services. Because of the large number of potentially confounding variables, it is very difficult to show a direct link between a cultural competence

intervention and health status improvements and/or cost savings. It may be, however, possible to link together a number of intermediary outcomes that contribute to health status improvements and/or cost savings. For example:

CLAS → better communication (measured by comprehension, satisfaction, etc.)
→ better adherence to medications and lifestyle changes
→ improved health status
→ lower undesirable health care use (ED visits, hospitalization, etc.)

To integrate multiple perspectives, the project team applied a common set of outcomes research questions to cultural competence interventions to develop a research agenda that cuts across stakeholders' interests.

Did the intervention do what it was supposed to do?
For example:

- Did provider knowledge/awareness improve after training?
- Did patients in need of culturally competent services receive them?
- Were written translations understandable?

Did the intervention affect processes of care?
These might include:

- Provider behavior modification
- Patient comprehension, participation in communication, treatment negotiation
- Time spent with the physician
- Diagnostic accuracy

Did the intervention improve access to services and/or appropriate utilization of services?
Measures might include:

- Receipt of diagnostic tests, appropriate medications, preventive/specialist services
- Number of admissions
- Hospital days, length of stay, bounce-back/recidivism
- Preventable hospitalization
- Inappropriate usage of services (e.g., ED)
- Most-to-least restrictive setting progression
- Error reduction and/or patient safety
- Medication errors, inappropriate treatment, unnecessary procedures

Did the intervention affect patient satisfaction and health behaviors?
Other measures might include:

- Patient trust
- Acceptance of preventive services

- Adherence to medications, appointments, lifestyle change recommendations
- Patient loyalty
- Health seeking behavior

Did the intervention affect patient health outcomes?
These might include:

- Better control of chronic disease symptoms
- Improved health status:
  - → Self-report
  - → Established medical outcomes
- Quality of life
- Population-based/community-level indicators:
  - → Morbidity, mortality
  - → Prevalence/incidence of disease
  - → Level of acuity

Did the efficiency and cost-effectiveness of health care delivery change?
For example:

- Does it take more time to use a trained vs. untrained interpreter?
- Did the intervention reduce inappropriate care, resulting in cost savings?
- Did the intervention increase preventive care/early intervention that reduced treatment costs?

Contrary to popular perception, research in many of these areas has begun and is of growing interest to the health services research community. Much of this work looks at the impact of attempting to improve communication between clinicians and patients when cultural or linguistic factors are involved. However, further work is needed to raise awareness about the existing evidence base on cultural competence interventions, and to promote continued research in this area. Advancing a cultural competence research agenda involves many tasks. Specific research questions need to be identified. Funding must be made available for this research. A cadre of interested researchers needs to be cultivated and networked. Data sets need to be identified and analyzed. Most importantly, the results of research must be made widely available to practitioners, policymakers, and other researchers.

Another important task, given the limited resources available for research on cultural competence interventions, is improved information-sharing about research projects to share research instruments and methods, promote collaboration, avoid duplication, and maximize limited funding. While no single study is definitive and additional research is always needed to confirm the validity of initial studies, better awareness of, and coordination of efforts, could advance critical areas of research more efficiently.

Recently published studies reinforce the intuition that a lack of attention to cultural issues leads to less than optimal health care, and that addressing these concerns or using certain cultural competence interventions leads to improved outcomes. This research does not exist for every population or every type of cultural competence intervention—most of it is concentrated on the impact of language or communication barriers—but it is sufficient to suggest that additional work in this area is warranted.

II. OVERVIEW OF THE CULTURAL COMPETENCE RESEARCH AGENDA PROJECT

Project Goals and Objectives

The main goal of the Cultural Competence Research Agenda Project is to produce and disseminate to key stakeholders a research agenda on the relationship between cultural competence interventions and health care delivery and health outcomes. This goal has been accomplished through completion of the following tasks:

- Developing a working consensus on the parameters and specifics of cultural competence interventions for the purposes of conducting health care delivery and health outcomes research.
- Collecting, reviewing and making available to the public abstracts of published, unpublished, and in-progress research on cultural competence.
- Identifying key research questions on cultural competence that have been the subject of research, and describing the strengths and limitations of this research.
- Identifying key research questions on cultural competence that have yet to be studied.
- Identifying issues related to study design, potential data sources and study sites.
- Identifying larger contextual issues related to cultural competence research: how to interest potential researchers, linking content experts with research experts, researcher collaboration/networking, funding for research, publication, and how to involve and gain the support of research stakeholders (providers, policymakers, consumers) in the identification and utilization of research findings.

Project Methodology

Preparing the cultural competence research agendas involved a multi-step process: 1) conducting a literature review, 2) convening a Research Advisory Committee (RAC), and 3) drafting, soliciting comments on, and revising the research agenda.

The project was guided by the following definition of cultural competence used in the CLAS Standards Report (U.S. Department of Health and Human Services Office of the Secretary, 2000).

> *Cultural and linguistic competence is a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals that enables effective work in cross-cultural situations. 'Culture' refers to integrated patterns of human behavior that include the language, thoughts, communications, actions, customs, beliefs, values, and institutions of racial, ethnic, religious, or social groups. 'Competence' implies having the capacity to function effectively as an individual and an organization within the context of the cultural beliefs, behaviors, and needs presented by consumers and their communities.*

Conduct Literature Review

A multi-source, first-run literature search was conducted to identify research that used empirical analysis to measure the impact of culturally and linguistically competent interventions on outcomes, specifically issues

related to access, utilization and health status. A substantial number of published studies in this area document racial and ethnic health disparities, present arguments for integrating culturally competent interventions, or describe models and methodologies. However, the goal of this search was to quantify and analyze the research base where the primary focus is the measurement of the impact of the intervention.
The project team developed a key word template consisting of approximately 177 terms and word combinations using as a framework the cultural competence interventions listed in the CLAS Standards Report (U.S. Department of Health and Human Services Office of the Secretary, 2000), supplemented by interventions cataloged by Brach and Fraser (2000). The CLAS Standards Report describes 14 actions that can be taken by health care organizations to improve cultural and linguistic competency; Brach and Fraser sets out nine interventions that could be used to reduce racial and ethnic health disparities. The list of cultural competence interventions can be found at the beginning of Part Two of this report. A complete list of search terms used can be found in Appendix One.

The template was applied to major literature databases, including MEDLINE® (1966-2001), CINAHL® (1982-2001), PsycINFO (1987-2001) and Sociological Abstracts (SOCA)/Sociofile (SOCIO) (1963-2001). In an attempt to identify additional research, publications, or projects relating to cultural and linguistic competence, a Web site search was also conducted. This entailed the review of 38 private foundations currently funding public health and health services initiatives, 58 health policy organizations and associations, and the government Web sites of all Federal health and human services agencies and bureaus. Information about unpublished studies and research in progress was gleaned from these sources and also from the project Research Advisory Committee and other individuals interested in research on cultural competence.

Convene Research Advisory Committee

A Research Advisory Committee (RAC) of key researchers, policymakers and health care providers was convened to review the literature and make recommendations for a research agenda to pursue work in this area. The 30-member RAC met in Washington, DC in April 2001 for a two-and-a-half day meeting to review the analysis of the literature on cultural competence and outcomes. The RAC was divided into three groups according to interest area and expertise to develop research questions for their topic areas and discuss methodological concerns related to conducting research in that area. The group also met as a whole to discuss overarching issues related to the definitions, study design, and funding/publication challenges of cultural competence research, which are described in Part Three of this report. A complete contact list of the RAC members, along with select meeting materials, can be found in Appendix Three.

Draft, Solicit Comments on, and Revise Research Agenda

Drawing on the RAC's recommendations and findings from the literature review, the project team prepared individual research agendas for each of the main topic areas. The draft agendas were sent to RAC members for comment. Public comment was solicited by posting the draft agendas on the DiversityRx Web site (www.diverstyRx.org/rcproj1) and circulating them to the National Council on Interpretation in Health Care LISTSERV®. The draft agendas were revised and the final versions are contained in Part Two of this report.

Highlights of Literature Review Findings

The literature review revealed a considerable amount of descriptive literature on each of the interventions. Although this information does not present a scientifically based argument for the use of most of these interventions, it supports the initiation and continuation of research in this area. Additionally, the value of descriptive literature should not be overlooked in the research development process. Descriptive information can provide the foundation for model duplication, identification of best practices, meta-analysis, identification of standard measures and instruments, hypothesis generation and further empirical research.

This search uncovered only a limited number of published studies for each of the interventions that employed rigorous research methodologies, and these are described in more detail in the literature analyses and matrices contained in Appendix Two and the abstracts contained in Appendix Four. Some of the well-established, non-cultural competence specific-approaches, such as health promotion and education, have, through an evolutionary process, incorporated certain elements that enhance outreach efforts and service delivery to multicultural communities. In these instances, the descriptive and empirical research base was substantially larger than some of the more recently recognized interventions such as cultural competence training.

Although limited in scope and depth, the body of existing empirical studies does suggest that several of the proposed interventions have the potential to affect health care delivery and health outcomes. Culturally sensitive interventions such as cultural competence training and racial and ethnic concordance have shown improvements in subjective, self-assessed measures of provider knowledge and patient satisfaction. Health promotion and education programs that utilize interpreters, community health workers, translated materials and other culturally sensitive approaches reported increases in intake, program completion, and knowledge.

Studies examining the impact of community health workers and traditional healers were almost non-existent compared to the large volume of descriptive literature detailing the use of these practices. Studies examining the impact of linguistic and communication interventions on outcomes were found to have different degrees of effectiveness on patient satisfaction and health services utilization. No literature was identified that specifically examined both the processes and outcomes of organizational accommodations for cultural and linguistic competence.

In sum, the literature reveals promising trends in outcomes-related research that should be further explored. Certain cultural competence interventions appear to affect health services utilization, satisfaction, and increases in knowledge, although subsequent impacts on provider or patient behavior and/or health outcomes were not explored. Some studies that measured outcomes for specific interventions revealed contradictory and inconclusive results, due to significant variations in definitions, study design or approach. Their findings cannot be easily generalized, further supporting the need for additional research. Clearly, the results of this literature search demonstrate an opportunity to further build an evidence base linking cultural competent interventions to specific impacts on outcomes.

Additionally, future literature reviews that search for specific outcomes may result in a more comprehensive set of literature findings. However, this would require significantly more searches and review time and a clear definition of outcomes being sought. There are many outcomes that could be examined such as health services utilization, satisfaction, compliance, health knowledge, communication, improved health outcomes, etc. However, it may be very difficult to identify and link specific interventions and approaches to these improvements. It may also be difficult to link interventions of integrated culturally sensitive approaches to positive outcomes if those interventions were not the main focus of the study.

Highlights of the Research Agendas

The successes and limitations of the existing impact literature on cultural competence point to substantial opportunities for future research in each of the identified categories. Using both descriptive and quantitative approaches, this research can further illuminate the details of cultural competence interventions as well as specific impacts on health care delivery outcomes.

The major task of this project was to propose future research directions in the area of cultural competence and health care delivery and health outcomes. By analyzing the literature, the project team was able to identify areas where the current research was weak or lacking, and suggest areas and questions for further exploration. These efforts were buttressed by the discussions and recommendations of the RAC, both during the April 2001 RAC meeting and in subsequent reviews of the research agenda drafts.

The major product of this endeavor is the group of research agendas found in Part Two of the report. Each research agenda contains a definition of the category, a brief synthesis of findings from the literature, key research questions, and a discussion of methodological and policy considerations influencing future research for that area.

The research agendas reflect that some of the topic areas were backed by a greater body of literature and/or generated more interest from RAC members. The extensive agenda developed for the language assistance interventions category mirrors its prominence among both health care providers and policymakers. It is also the agenda best supported by previous research related to outcomes. Additional topics generating significant interest included cultural competence education and training, and racial, ethnic and linguistic concordance. The topic of organizational supports generated a broad list of questions, although the majority of these focused on their effect on the processes of health care delivery and not on health outcomes.

It is interesting to note that as stakeholder interest and investment in implementing certain interventions increases (e.g., interpreter services, hiring for diversity, cultural competence training), so too does the demand for concrete linkages between an intervention and outcomes, especially cost-related benefits.

Conversely, there are many providers who are willing to undertake these interventions without "proof of value," perhaps simply due to consumer demand for such interventions or because the face value of the intervention is obvious. Many RAC members pointed out that, methodological and funding challenges aside, the importance of outcomes research on cultural competence interventions should not be overstated, given that many cultural competence interventions have already been implemented despite the lack of rigorously conducted, definitive outcomes studies.

The following highlights of the Cultural Competence Research Agenda are organized into three groups of cultural competence interventions:

- Category A: Culturally Sensitive Interventions
- Category B: Language Assistance
- Category C: Organizational Supports for Cultural Competence.

A complete list of research questions can be found in Part Two of the report.

Category A: Culturally Sensitive Interventions

Cultural Competence Education and Training

Among the activities listed under Category A, cultural competence education and training generates considerable interest among providers, educators, and policymakers for its potential impact on improving the patient-provider relationship when cultural differences exist. While the descriptive literature on this topic is extensive, studies that examine the impact of training on either trainees and patients is more limited. Some connections are made with increases in levels of cultural knowledge, attitudes and awareness, and improvements in communication skills among trainees. Few studies examined the impact of training on health care delivery, patient behavior change, or health outcomes. The topic and the literature, however, were sufficient to inspire a substantial number of future research questions. These include questions that seek to better understand and define the intervention related to:

- Trainees and motivation (e.g., what incentives are sufficient to motivate clinicians to undertake cultural competence training—improved patient-provider relationship, improved health outcomes, financial rewards?)

- Content of training (e.g., what competencies and basic skills produce behavioral changes by trainees and improvement in health and health care delivery outcomes?)

- Form of training (e.g., which educational delivery techniques are most effective at changing trainee behavior?)

Another category of questions seeks to measure the impact of training on both providers and patients. These include questions on:

- Achieving behavioral changes among trainees (e.g., what degree of knowledge or awareness translates into action? Is there a dose-response relationship for certain training interventions, and what is the minimum intervention that will result in acceptable outcomes?)

- Measuring impact on health care delivery and health outcomes (e.g., do patients of providers who have received training show improvements in satisfaction, adherence to treatment recommendations, keeping recommended follow-up visits, etc.?)

Racial, Ethnic, and Linguistic Concordance

The topic of racial, ethnic and linguistic concordance among providers and patients has already generated considerable research interest. The literature suggests that some patients from multicultural groups prefer to seek care from providers of their own race, ethnicity, or language group, and that such concordance appeared to have a positive impact on appropriate service utilization, treatment participation, and receipt of some services. However, the literature on the effects of positive outcomes in utilization was not shown to translate into improvements in health outcomes. Many health care organizations and policymakers have pursued diversification of the workforce as a way of increasing patient-provider concordance, although others are skeptical, given the demographic difficulties of achieving this goal across-the-board. Nevertheless, ongoing research in this area can also be of considerable value for what it illuminates about cross-cultural health care encounters. Key research questions focus on:

- Concordance and the clinical encounter (e.g., what can we learn from concordant encounters about factors that could be emulated in non-concordant encounters?)

- Patient-related health care delivery and health outcomes (e.g., does concordance affect patient/consumer comprehension, satisfaction, appropriate utilization of services, adherence to treatment, perceived health status and/or quality of life measures?)

- Clinician-related outcomes (e.g., does concordance have an effect on clinician behavior/perceptions? Measures could include time spent with patients/consumers, number of treatment options discussed, level of interaction, number of questions the patient is allowed to ask, negotiation of treatment options, clinician perceptions of effectiveness of his/her efforts.)

- The impact of concordance on organizations (e.g., does the overall level of staff awareness and sensitivity to cultural issues improve when there is diversity throughout the organization?)

Community Health Workers and Culturally Competent Health Promotion

Both these topics have already been extensively researched, although not necessarily with a specific focus on the effect of the culturally competent aspect of the interventions. Studies suggest linkages between the intervention and increases in health-care-related knowledge, self-care practices, screening rates, and decreases in risk behaviors. Both types of interventions could benefit from further research in the following areas:

- What is the impact on knowledge, behavioral change, and/or health outcomes of community health workers (CHW) and culturally competent health promotion (CCHP) programs versus standard interventions? Versus no intervention?

- Is there a significant improvement in health care delivery and/or health outcomes when the intervention is highly tailored to subgroups and subcultures as opposed to generalized culturally competent health promotion programs?

- Which elements of the culturally sensitive methods utilized by CHW and CCHP programs improve access, quality and utilization of services?

Category B: Language Assistance

Language Barriers, Bilingual Services, Oral Interpretation, and Translated Written Materials

The literature on the impact of language barriers and language assistance interventions is both substantial and promising with respect to outcomes. Studies show that language barriers have a demonstrable negative impact on communication, satisfaction, and appropriate health care utilization. A growing body of literature suggests that language assistance interventions such as oral interpretation can have a positive effect on patient satisfaction and comprehension, and improvements on health care delivery measures such as increases in the amount of time spent with patients, reduction in diagnostic testing disparities among English-speaking patients versus limited English proficient (LEP) patients, higher clinic return rates, and increases in primary care services utilization.

The Research Agenda on this topic is divided into four areas around which to structure future research efforts on language assistance:

- Impact research (e.g., what is the impact of untrained interpreters versus trained interpreters on different outcomes?)

- Cost-related research (e.g., what are the cost-benefits of different types of language assistance services and of not providing interpreter services?)

- Organizational research (e.g., what are the human resource management considerations, including cost, involved in using bilingual staff who have other responsibilities as ad hoc interpreters?)

- Translation and miscellaneous topics (e.g., do translated prescription instructions lead to fewer patient medication errors and/or better adherence?)

Category C: Organizational Supports for Cultural Competence

The research agenda identifies eight types of organizational supports for cultural competence. These are primarily management activities not expected to have a direct impact on health outcomes, but intended to improve health care delivery to culturally diverse populations.

To date, both descriptive and process-related outcomes research on these activities is very limited. However, a number of research questions were identified that would better define these interventions and investigate potential links between them and improved organizational efficiency. They include research related to:

- Management, policy and implementation strategies to institutionalize cultural competence activities (e.g., does the existence of explicit plans and strategies for the implementation of cultural competence interventions facilitate and improve the delivery of those services over an ad hoc approach?)

- Community involvement in CLAS program planning, design, implementation, governance, training, and research (e.g., does having ethnic community advisory committees or other mechanisms of community input have a measurable and beneficial effect on the successful implementation and acceptance of plans, policies, and programs of culturally competent interventions, either at the organizational or programmatic level?)

- Design and use of surveys and profile instruments to plan for services and measure satisfaction, quality of services (e.g., what level of community input, data gathering and testing is necessary to develop culturally valid tools for information gathering, as many health care organizations have neither the time nor resources to engage in complex survey development processes for the purposes of service planning and design? Are there model instruments or templates that can be easily adapted? What are the benefits of the process of involving the community in survey design, above and beyond implementing an acceptable tool?)

- Cultural competence self assessments (e.g., what impact does the implementation of organizational self-assessments have on motivating improvements on cultural competence within the organization, and overall organizational strategic planning?)
- Ethnic data collection/community profiles (e.g., does the easy availability of race/ethnicity/language data improve the timely delivery of culturally competent services, such as insuring an interpreter is present for appointments, sending materials in the appropriate language, or assigning enrollees to a concordant clinician if the enrollee doesn't select a clinician?)

Summary of Methodological and Practical Considerations

While there is a high level of interest in the results of research on cultural competence interventions, the RAC identified several methodological challenges to conducting such research. These include lack of:

- Standardized definitions of the interventions
- Standardized evaluative measures
- Culturally competent instruments
- Secondary data sources with uniform racial, ethnic, and language data.

An additional challenge is the large sample size that is required to prove that cultural competence interventions are more effective than similar interventions that are not designed to be culturally competent.

The RAC also identified various factors that impede the funding and publication of cultural competence research. RAC members thought that funders and journal reviewers tended to lack familiarity with the impact of language and culture on health care delivery and viewed cultural competence research as marginal and/or high risk. This was thought to make some funders unwilling to expend the amounts of money necessary to show linkages between cultural competence interventions and health outcomes, and journals unwilling to accept manuscripts. Researchers, in turn, may therefore consider cultural competence studies to be a high risk undertaking.

These challenges, as well as the RAC's suggestions for addressing them, are discussed in further detail in Part Three of this report.

Part Two

Cultural Competence Research Agendas

I. OVERVIEW

The cultural competence research agenda is divided into three main categories, with detailed discussions for each of the listed subcategories. The categories and format of each discussion is outlined below. These documents should be considered in conjunction with the related documents found in Appendices Two and Four, including a discussion of findings by category, a literature summary matrix, and the abstracts for each article examined.

Categories

Category A: Culturally Sensitive Interventions

- Cultural competence education and training
- Racial, ethnic, and linguistic concordance
- Community health workers
- Culturally competent health promotion
- Family/community inclusion in health care delivery
- Coordination of conventional medicine and traditional practices/healers

Category B: Language Assistance

- Language barriers
- Bilingual services and oral interpretation
- Translated written materials

Category C: Organizational Supports for Cultural Competence

- Management, policy and implementation strategies to institutionalize cultural competence activities
- Community involvement in cultural competence program planning, design, implementation, training, and research
- Design and use of surveys and profile instruments to plan for services, and measure satisfaction and quality
- Cultural competence self assessments and ethnic data collection/community profiles
- Culturally appropriate ethics, conflict, and grievance resolution processes
- Public information about CLAS standards performance
- Implementation of the all CLAS standards as a comprehensive organizational strategy

Format

Each category has its own research agenda discussion, with subcategories broken out separately for Categories A and C. The discussions include the following elements:

- *Definition of the Category*: Provides descriptive information on the cultural competence intervention.

- *Synthesis of Findings from Literature Review*: A brief summary of the key findings from the literature review conducted for this project. More detailed discussions of findings can be found in Appendix Two.

- *Key Research Questions*: Includes both research that attempts to further define/understand the intervention itself, and research that looks at specific outcomes.

- *Methodological and/or Policy Considerations Influencing Future Research*: Select considerations for researchers and/or policymakers interested in this area.

II. CATEGORY A: CULTURALLY SENSITIVE INTERVENTIONS

Research Agenda on Cultural Competence Education and Training

Definition

Cultural competence education and training broadly describes a vast array of educational activities aimed at enhancing the capacity of the individuals and the service delivery system to meet the needs of different racial and ethnic populations (hereinafter referred to as cultural competence training). The literature suggests that cultural competence training can include educational activities aimed at increasing sensitivity and awareness; the provision of multicultural health and demographic information on service area populations; skills building in bicultural and bilingual interviewing and patient assessment; enhancing the use of race or ethnic-specific epidemiological data in diagnosis and treatment; and increasing cultural knowledge and understanding. Training can be designed for individuals in clinical, support, administrative, and governance positions. It is believed that the knowledge and skills gained through training will enable providers and institutions to work more effectively in cross-cultural situations by developing new approaches to communication, patient care, and services planning that are based on cultural and linguistic needs.

Synthesis of Findings from Literature Review

The literature findings on education and training can be separated into three groupings: descriptive studies, the impact of education and training on participants, and the impact of education and training on patients.

Descriptive Studies

The majority of the literature encompasses descriptive studies of cultural competency training, delivery approaches and techniques; arguments for using training as a means to eliminate disparities; and surveys of the prevalence of training in different educational settings. The literature focuses primarily on cultural competence training in the context of formal educational programs or post-graduate residency training for health professions. Additional work is needed on the prevalence and format of training in workplace-based training or continuing education for practicing professionals. The content of training described in these studies varies widely.

Findings suggest that additional research is needed to determine whether the standardization of cultural competence education is appropriate and effective, how established goals and objectives can be empirically measured, and the best approaches for attaining health care delivery and health outcomes.

Impact of Education and Training on Participants

Most of the remaining literature attempts to answer questions related to the impact of training on training participants. In an attempt to quantify the impact of training on participants, studies examined levels of cultural knowledge, attitudes, awareness, satisfaction and communication skills overall. Studies that empirically measured the impact of training found that self-assessments indicated significant increases in levels of cultural knowledge, attitudes and awareness in both single and comparative groups. However, some studies using non-subjective measures found that knowledge improved in a few areas but not others. Other studies documented modest improvements in some attitudes, but few improvements in communication skills. Studies that examined the impact of training on sensitivity generated inconclusive and often contradictory results.

Several comparative studies attempted to determine the impact and effectiveness of variations in training presentation and content. These studies reported different levels of improvement in knowledge, awareness, and cultural sensitivity, frequently relying on self-report assessments rather than objective behavioral assessments. However, other studies found no empirically measured differences.

Impact of Education and Training on Patients

Very few studies examined the impact of training on patient behavior change or on health care delivery and health outcomes. There is a need to define which are the most desirable outcomes related to the patient-provider relationship, and which are the most reliable indicators of positive improvements that could result from training. One interesting study, which may provide a model for future research, attempted to measure the impact of training from the perspective of the patient using both subjective and objective measurements. It found that clients assigned to experienced counselors who received cultural sensitivity training rated their counselor higher on credibility and relationship measures, returned for more follow-up sessions, and expressed greater satisfaction with counseling than did clients assigned to experienced counselors who had not received the additional training. Research activities currently underway by others will attempt to assess the impact of cultural competence training on measures of competency, patient trust and satisfaction, adherence to treatment, and subsequent health care delivery and health outcomes.

Key Research Questions

The literature on cultural competency education and training made the assumption that positive impacts on training participants will result in behavioral changes that will facilitate the delivery of culturally competent care. It is also assumed that these changes will eventually translate into improvements in health care delivery and health outcomes, including satisfaction. Clearly there is a need to examine and validate each of these assumptions, including an examination of the types of education that have the most effective impact on subsequent outcomes.

Trainees and Motivation

- Should all management, clinical, and support staff, as well as those being educated to assume those positions, receive cultural competency training?
- Is the likelihood of better health care delivery and patient health outcomes (including improved satisfaction) sufficient to motivate attendance, or must there be additional incentives (financial or otherwise)?
- How big does the perceived payoff (including incentives) have to be for trainees to be willing to expend time and energy in cultural competence training?
- Is it sufficiently motivating to learn more effective communication skills, or must clinicians be persuaded by scientific/empirical evidence that demonstrates better health care delivery and patient health outcomes from training?
- Do motivations differ by ethnicity of the trainee, or different practice settings (e.g., solo practice, patient populations of different socio-economic status, public versus private, clinic versus non-clinic)?
- Is there a threshold of the number of patients of a different ethnicity or multiple ethnicities that contributes to the motivation?

Content of Training

- Which competencies and basic skills produce behavioral changes by trainees and improvement in health care delivery and health outcomes?
- How should curricula be tailored to address the needs of individual disciplines and/or educational settings?
- Which aspects of training can be generic in content, and which aspects should focus on specific cultures or ethnic groups?
- Can education on cultural issues translate into changes in behavior and service delivery in the absence of skills training?
- How can the danger of reinforcing negative perceptions and attitudes be minimized?
- How do curricula designers best gather and incorporate information on how clients want to be treated in health care encounters (which may vary by ethnicity)?
- How can organizations best monitor and revise their curricula to respond to changes in the demographics of an institution's service population?

Form of Training

- Which educational delivery techniques (e.g., mentored clinical contacts, videotaped consultations, student log-books, community medicine projects, affective methods, and didactic methods) are most effective at changing trainee behavior?
- Does training have to be tailored to different groups of trainees (e.g., management, clinical, and support staff) to achieve better results than undifferentiated training?
- What is the impact of format, content, and length of training? Is there any measurable, long-term effect of one-time training interventions?

Achieving Behavioral Changes Among Trainees

- Which methods are most reliable for assessing the impact of training on knowledge, attitudes, behaviors, and skills?
- Do the effects of training vary among different types of trainees (e.g., students, practicing clinicians, non-clinical staff, various disciplines)?
- What degree of knowledge or awareness translates into action? Is there a dose-response relationship for certain training interventions, and what is the minimum intervention that will result in acceptable outcomes?
- How can behavioral changes be sustained?
- Are there outcome differences associated with individuals who have a prior interest in cultural issues, or who have very diverse client profiles?
- Can variations in provider behavior be attributed to a certain level of knowledge, awareness or sensitivity?

Impact Research

What is the impact of the training on health care delivery and health outcomes, and which outcomes are the most appropriate to measure? Possibilities include:

- Adherence to treatment recommendations
- Keeping recommended follow-up visits
- Appropriate utilization of primary and emergency services
- Less restrictive placements
- Patient satisfaction
- Diagnostic success
- Morbidity measures such as exercise tolerance for cardiac patients, missed days of school/work for asthmatics, hemoglobin A1C for diabetics, etc.

Methodological and/or Policy Considerations Influencing Future Research

Variations in studies highlight a fundamental problem with the myriad definitions of training: since there is no universal standard for training, nor a standard definition of cultural competence, there can be no comparability among existing studies of the "cultural competence" of subjects participating in different training programs. This further supports the need for a more thorough examination of the types of competencies needed in various disciplines and educational settings, and the setting of standards of training for different target audiences.

Methodological problems associated with assessing the impact of cultural competence training include relying on subjective self-assessment of cultural competence, knowledge and awareness. Some use independently developed assessment tools, others use tools designed for use with training curricula. Many rely on knowledge-based tests rather than observations of behavior and subsequent change. This may present a false sense of security on the part of individuals who are able to absorb facts and theorize easily, but have difficulty putting them into practice, while falsely validating specific training modules. Subjective self-assessments should be augmented with objective assessments of cultural knowledge, and client assessments (satisfaction, grievances, etc.) tied to individual clinicians.

Future research should consider examining the impact of training on providers and their clients. Many of the studies examining training involved students, not providers, and therefore changes in behavior or service delivery could not be assessed. Training for individuals in support, administrative and governance positions should also be evaluated for impact on day-to-day staff-client interactions, as well as on sensitivity and responsiveness to cultural/linguistic issues in health services planning.

As with other types of training geared towards trainee behavior change, critical questions arise related to the difficulty of establishing firm linkages between cultural competence training and subsequent trainee behavior and/or impacts on health care delivery and health outcomes. These may include the following:

- Can we isolate the impact of training from inherent skill, personality, and other intangibles?
- How do we measure and evaluate the impact of training on health care delivery and health outcomes?
- Is it reasonable to expect evidence of training's ability to improve health outcomes, or should training only be held accountable for achieving intermediary effects, such as improving communication?

Stakeholders should be aware that most training topics or modules regularly undertaken by health care professionals have not been definitively linked with subsequent outcome improvements, and this linkage (or lack thereof) is not taken as an indicator of value. Many RAC members felt that cultural competence training should not be held to a higher standard.

Research Agenda on Racial, Ethnic, and Linguistic Concordance

Definition

Racial, ethnic, and linguistic concordance refers to the process of matching any or all such characteristics between patients/consumers and clinicians. The underlying assumption behind this process is that commonality with respect to these characteristics will lead to a higher degree of rapport between participants in a clinical encounter by eliminating differences in cultural and linguistic backgrounds that lead to misunderstandings, leading to a positive impact on outcomes.

Some literature suggests that concordance may be relevant beyond the clinical encounter to encompass race/ethnic/language-specific clinic sites or programs. It is theorized that successful delivery of health services to different racial and ethnic populations requires an understanding of the cultural milieu of each distinct community, as well as the trust of communities and individual patients. This understanding and trust can be obtained by instituting service and support staffing patterns that mirror the targeted service population. Incorporating a team that reflects the community dynamics can instill this assurance and assist in the development of culturally appropriate and acceptable care essential to a successful program.

Synthesis of Findings from Literature Review

The literature suggests that some patients from multicultural groups prefer to seek care from providers of their own race, ethnicity, or language group, and that such concordances appeared to have a positive impact on appropriate service utilization, treatment participation, and receipt of some services, although impact on satisfaction was inconclusive. The literature on the effects of positive outcomes in utilization was not shown to translate into improvements in health outcomes. Research was conducted with Asian, Hispanic, and black concordant encounters, but findings should be considered specific to the groups studied, and not generalizable across ethnic groups. Research currently pending publication on the relationship between patient-centeredness and race-concordant visits suggests that patient and physician age and gender are significant confounders in the relationship between race-concordance and communication styles.
The literature particularly appears to support the benefits of language-concordant encounters, showing that language concordance between patients and providers eliminates many of the problems associated with language barriers. However, further research should examine the differential impact of concordant encounters with those using interpreters.

Key Research Questions

Concordance and the Clinical Encounter

- What specifically is important about concordance in medical encounters: is it race, ethnicity, gender, age, socioeconomic status, culture, language, and/or communication style(s)?
- What can we learn from concordant encounters about the factors that could be emulated in non-concordant encounters? Which factors are not definable or replicable? Are there factors that are common across racial/ethnic/language groups, or does each cultural group respond to their own unique factors?
- Can greater satisfaction, or other health care delivery and health outcomes be affected by clinician non-race/ethnic factors, such as a patient-centered provider approach, age or gender? How does this combine with concordance factors such as race, ethnicity, gender, age, SES, culture, language, patient-centeredness, and/or communication styles?

- Do matches on exact cultures (as opposed to, for example, language groups or regions) yield better health care delivery and health outcomes? How precise do matches have to be in order to have an impact on outcomes? At what level is concordance most productive? For example, is there greater positive impact on intermediate outcomes for concordance between broad groupings, using categories such as Hispanic or Latino, or for more specific concordance (e.g., Puerto Rican providers with Puerto Rican patients)? What portion of the change in the outcome can be attributed to differences in gender, age or level of acculturation within these concordant categories?
- Do findings related to health care delivery and health outcomes in concordant encounters vary by different racial, ethnic or linguistic groups? For example, would recently-arrived Bosnian refugees in concordant encounters show more positive outcomes than third generation, English-speaking Latinos? Is there a variable impact related to the effects of: length of time in this country, acculturation, educational level, religious and gender matching, experience of war/trauma/torture? Which variables are most relevant when there are multiple variables, and should they be tracked separately?

Patient-related Health Care Delivery and Health Outcomes

- Does concordance affect patient/consumer: comprehension, satisfaction, appropriate utilization of services, and adherence to treatment, perceived health status and/or quality of life measures? Do positive outcomes in any of these areas correlate to medical condition/health status improvements?
- Does a lack of choice of concordant providers have an impact on overall health service utilization or satisfaction with a health care system or plan?
- Does a lack of concordant support staff affect perceptions of a system or plan, service utilization, or satisfaction?
- Does the impact of concordance change over time? Is the need for concordance greater at the beginning of clinical/organizational relationships as a means to establish trust?

Clinician-related Outcomes

- Does concordance have an effect on clinician behavior/perceptions? Measures could include time spent with patients/consumers, number of treatment options discussed, level of interaction, number of questions the patient is allowed to ask, negotiation of treatment options, clinician perceptions of effectiveness of his/her efforts. How does the health care delivery and health outcomes of concordant encounters compare with those for clinicians who have received cultural competence training? What factors and behaviors can be found in both types of encounters and which are not replicable?
- What is the effectiveness of cross-cultural training to make generally concordant pairs more effective? (e.g., programs to expose African-American providers to Caribbean health beliefs and practices? What effect might cross-cultural training have on the attitudes and communication practices of the clinicians who participate?)

The Impact of Concordance on Organizations

- What are the broader implications of concordance outside of the medical encounter, particularly the systemic implications? Is it simply a "wallpaper" effect— that the visual evidence of diversity is reassuring to patients.
- Does concordance achieved through a diverse staff improve the service design and delivery efforts targeting multicultural communities?
- Does the overall level of staff awareness and sensitivity to cultural issues improve when there is diversity throughout the organization? What mechanisms exist in the organization to facilitate communication and learning among staff and across the organization?
- Does tension arise among staff from efforts to diversify staffing to achieve concordance? What are the repercussions of such efforts, and what impact does this have on the delivery of culturally competent services?

Methodological and/or Policy Considerations Influencing Future Research

RAC members identified difficulties recruiting ethnic minority clinicians into this kind of research. The main reasons for recruitment difficulties appear to be related to lack of time, lack of financial incentives, and lack of perceived benefit to the providers themselves. However, the recent positive findings related to racial concordance have led some providers to become more willing to participate.

Studies that collect data using direct observation, such as through audiotape and videotape, and other qualitative methods (e.g., focus groups, in-depth interviews, transcripts of actual encounters) might shed more light on the relationship of clinician and patient perceptions of one another to race and ethnic concordance.

RAC members disagreed about the potential applications of provider-patient concordance. The majority of participants expressed uncertainty about the implications of pursuing concordance as a policy or organizational goal. Such a goal is probably unachievable on a national scale for the foreseeable future, given the current demographics of health professionals in practice and in training. However, current research suggests that patients perceive and experience positive benefits from concordant encounters, suggesting an adequate rationale for providers to pursue this strategy as an organizational goal when reasonably achievable.

Aside from outcomes considerations, further research on the dynamics of concordant encounters and ethnic-specific clinics and programs could be very helpful in improving non-concordant encounters through program design and staff training. Continued research can assist with better understanding the factors about discordance that are dissatisfying to patients. It can inform practitioners in discordant relationships what they should be wary of or address differently, thus increasing the possibility that they can establish patient trust and comfort early in the clinical relationship.

Research Agenda on Community Health Workers

Definition

Community health workers (CHWs) are typically members of a particular community whose task it is to assist in improving the health of that community in cooperation with the health care system or public health agencies. The literature suggests that CHWs can work as agents of change by providing a variety of services, including outreach to underserved and hard-to-reach populations; health promotion/disease prevention educational instruction; patient tracking, needs assessment and the provision of follow-up services; patient advocacy and assistance; and, in some instances, delivering limited health care services.

Although many of these services are capable of being delivered through a direct systems-based approach, CHWs are often trained to integrate a more culturally and linguistically sensitive approach in a community setting. In addition to being part of the existing community and social network, CHWs ideally possess certain skills and capacities that are essential to gaining the trust and acceptance of individuals. These may include cultural communication and mediation skills, an understanding of the community's health belief systems and knowledge of a community's strengths and capacities, and the ability to use effective approaches for reaching targeted individuals. Through an integrated approach, CHWs can theoretically facilitate a better understanding of the changes that are sought without threatening the interests or cultural values of the community.

In addition to influencing health-related behavioral change and health outcomes in targeted communities, CHWs can also assist systems and service providers by soliciting information on community barriers, patterns of social interaction and decision making, past efforts aimed at changing health behaviors, and associated successes and failures. This information can enable providers and institutions to adopt methods more acceptable to the targeted community.

Synthesis of Findings from Literature Review

Descriptive

There is a sufficient literature base that describes the use of community health workers/lay health advisors, the content and structure of CHW-assisted programs, and the methodologies by which CHWs were integrated into specific programs as part of a corrective strategy to supplement or modify existing initiatives. The literature highlights variations in training and preparation, roles and responsibilities, and controversies associated with using CHWs.

This literature can provide the foundation for further meta-analysis related to the utility of CHWs, core competencies, associated data collection, institutional and structural barriers to using CHWs, and potential models for duplication. This base can be used to identify those cultural components that make the work of CHWs more effective in meeting community-based needs.

Impact Research

Literature that empirically measures the impact of CHWs is limited, and surveys conducted by other institutions validate this finding for both published and non-published sources. Studies that attempted to quantify the impact of CHWs on various health care delivery and health outcomes looked at the effect of CHWs on patient satisfaction, knowledge, service utilization, and health status. No studies were identified that examined the cost effectiveness or cost benefits of using CHWs.

Findings suggest:

- CHWs were effective in increasing health-related knowledge and self-care practices through educational instruction. They were also credited with higher rates of health promotion course completion.
- CHWs facilitated behavioral change in the target population by providing encouragement, support and serving as role models. Increases in screening rates were attributed directly to their use in several studies.
- CHWs were effective in decreasing high-risk behaviors in the target population.
- Enhanced case management tracking and monitoring of patients by CHWs resulted in better follow-up with medical care.
- The use of CHWs was highly valued by administrators, program staff and clients.
- Virtually no studies linked CHWs directly to health outcomes, and those that did often did not compare the use of CHWs to no intervention.

Key Research Questions

- What are the specific roles and responsibilities of CHWs?
- How are interventions delivered by CHWs?
- What are effective strategies for partnerships between CHWs and health care organizations?
- Are credentialed CHWs more effective than non-credentialed CHWs?
- What are the indicators or standards for successful CHW programs?
- What is the most effective use of CHWs?
- What proportion of the targeted population is successfully reached by CHWs?
- Do variations exist in levels of successful outreach when using CHWs as an intervention versus other methods of outreach (i.e. case management)?
- What institutional barriers prevent the use of CHWs? How have these barriers been overcome?
- Is the use of CHWs a cost effective alternative to other comparable interventions when you include stakeholders' valuations? Is it appropriate to use cost as a measure of success?
- How can the effectiveness of CHWs be improved?
- Which components of the CHW's role impact behavioral change?
- Of these behavioral changes, which can be linked to improvements in health care delivery and health outcomes?
- Is it realistic to link CHWs to health outcomes?

Methodological and/or Policy Considerations Influencing Future Research

The RAC highlighted methodological concerns that could affect future research efforts. These include:

- The difficulty of standardizing relationships between CHWs and their clients. The literature describes CHWs as having a very dedicated advocacy role and an individualized approach that differs from worker to worker. The relationships that CHWs form with individuals in the target population, and even client to client, often cannot be individually standardized, but researchers and program directors can outline the content of patient instruction/interaction, as well as processes to develop relationships and trust that can be standardized and measured.
- Data collection on CHWs and their clients is not standardized and often more qualitative, thereby hampering comparative analyses.
- Length of study, compounded by a lack of personnel and financial resources, will be barriers to conducting health care delivery and health outcomes research or any ongoing monitoring of behavioral changes.
- Difficulties reaching populations, high attrition and the mobility of populations compound difficulties in long-term studies.
- Ambiguous definitions of "community." Systems often mistakenly assume that a community is an aggregation of individuals of a similar race, ethnicity, language or geographic locale, and do not take into consideration social and organizational factors that links individuals to a specific community.

Research Agenda on Culturally Competent Health Promotion

Definition

Health promotion refers to the process by which individuals, communities and populations are given the tools necessary to improve health care delivery and health outcomes. *Culturally competent health promotion* (CCHP) implies the incorporation of culturally sensitive concepts and practices into health promotion activities. Developing CCHP policies and interventions entails the integration of a multilevel community organization and development approach. Activities associated with this approach include community input into the design, implementation and evaluation of programs and associated activities; a comprehensive understanding of the health issues and needs of the target population; and the provision of health information and education. When conducted with a high degree of cultural and linguistic specificity, it is hypothesized that these interventions can be more effective in improving outcomes.

Synthesis of Findings from Literature Review

The literature suggests that culturally competent health promotion consists of a variety of approaches aimed at improving health care delivery and health outcomes by promoting healthy behaviors, early detection and treatment of disease, and care of chronic disease. The programs examined used individual culturally and linguistically sensitive interventions, or several interventions in combination, to improve outcomes. These include community input in the planning process, multicultural providers, racial/ethnic concordance, traditional healers, lay health workers, community health workers, public health campaigns, translated materials or culturally sensitive material, interpreters, multilingual informational videotapes and cultural competence training. Due to the number of interventions that can be used to define CCHP programs, the amount of descriptive literature highlighting the design, methods and processes of such programs is tremendous.

Although limited, studies that empirically measured the impact of CCHP programs on outcomes examined satisfaction, service utilization (e.g., impact on screening rates), increases in health knowledge, changes in health behavior and practices, and prevention. Findings suggest that some of the individual interventions associated with CCHP programs were found to have added value while others had inconsistent results. Community health workers were found to have a successful impact on recruitment into screening and health education programs and assisted in the facilitation of program completion. (For more details, see the Research Agenda on Community Health Workers.) Several studies attempted to measure both knowledge and behavioral change as a result of program participation. While some studies indicated increases in both measures, others found that increases in knowledge could not be linked to behavioral changes. Another study revealed that the impact of one CCHP program on different racial and ethnic study populations revealed different results for different ethnic groups.

In those studies that reported positive results on intermediary outcomes, no scientific links could be made to improvements in health outcomes. However, it was theorized by some authors that subsequent changes in health status could be attributed to the positive impact of these interventions.

The literature also revealed gaps or weaknesses in methodological design when examining the impact of CCHP programs and associated interventions on health outcomes. Very few studies were identified that specifically document improvements in health outcomes as a result of integrating culturally sensitive interventions into the delivery approach. Although comparison studies were conducted between CCHP and other case management approaches, no highly controlled designs examining the impact of culturally sensitive program intervention versus a standard health promotion program were identified, thereby weakening the findings of those studies that did report positive improvements in health outcomes.

Key Research Questions

- What is the impact of culturally competent health promotion programs versus standard health promotion programs on knowledge, behavioral change, and health outcomes?
- What are some of the indirect benefits of CCHP (e.g., greater family involvement and support in the care of patients)?
- Is there a significant improvement in health care delivery and health outcomes when the intervention is highly tailored to subgroups and subcultures as opposed to generalized culturally competent health promotion programs?
- What methods are effective for incorporating community input into the design, implementation, and evaluation of CCHP activities?
- Which elements of the culturally sensitive methods utilized by CCHP programs improve access, quality and utilization of services?

Methodological and/or Policy Considerations Influencing Future Research

The Research Advisory Committee (RAC) expressed concern about future research efforts directed at assessing the impact of culturally competent health promotion interventions. Many felt that breaking up a multi-component culturally competent health promotion program into discreet elements for the purposes of evaluation (e.g., the impact of interpretation, family inclusion, or lay health workers) would result in a dilutional effect of the overall intervention, and determining the impact of these elements may not be possible. The RAC also suggested that research assessing the impact of CCHP efforts may need to be conducted on specifically targeted cultural groups and subcultures, and success may need to be defined as it relates to the targeted populations.

Concern was also expressed regarding the availability of theoretical models, and lack of instruments and methodologies to measure and validate CCHP elements. Suggestions were made to include both quantitative and qualitative approaches in the assessment of culturally sensitive interventions.

Future efforts should focus on appropriately controlled experiments measuring the impact between standard programs and culturally competent programs in addition to attempting to measure the impact of the intervention compared to no intervention. However, detection of the marginal benefits of CCHP over health promotion interventions that were not specifically culturally competent would prove difficult without extremely large sample sizes due to the modest size of the expected effect.

Research Agenda on Family/Community Inclusion in Health Care Delivery

Definition

Family/community inclusion refers to the participation of family members or community-based networks in the development, implementation and decision-making processes of health care delivery. The underlying assumption supporting inclusion is that, through greater participation, family members and community-based networks can act as agents of change to facilitate improved social, behavioral and health outcomes more effectively than an exclusively health care system-based approach. Through the process of inclusion, essential cultural issues affecting service delivery and utilization can be identified by families and/or communities, and integrated into more responsive health care.

Synthesis of Findings from Literature Review

Research on the impact of family/community inclusion examined two distinct activities: inclusion of family/community in clinical encounters, and community involvement in the planning, design and implementation of programs and research. Studies described a variety of mechanisms for involving community members in the development of different organizational supports for culturally competent activities such as clinical training, survey design, health promotion program design, and developing community profiles. The authors of these studies theorize that family/community inclusion:

- Increased screening rates.
- Assisted medical providers in overcoming challenges in caring for elder patients.
- Positively influenced the participation of individuals in training programs.
- Assured the cultural acceptability of research tools leading to higher response rates and increased access to information about the community.

However, it should be noted that none of these studies used experimental research to measure the impact of inclusion on health care delivery and health outcomes or community-based participation. Therefore, further studies are needed to validate these findings.

Key Research Questions

The RAC suggested a need to further define and isolate specific aspects of both family inclusion and community participation that may improve care, and to identify models that warrant replication. Before inclusion can be justified as an intervention, efforts need to be made to understand the mechanisms of family and community involvement, how these mechanisms subsequently impact health encounters and practices, and whether the effects of inclusion can be isolated from other confounding variables in order to be linked to measurable outcomes.

Characteristics of Family Inclusion in the Health Care Encounter

- What methods can be used to determine whether inclusion is appropriate in a particular medical encounter, to what extent, and in what capacity should family members be involved?
- What positive and negative elements of provider-patient-family interaction can be identified?

- What is the best way to teach providers to facilitate the inclusion of all parties without over-extending the encounter period?
- What impact does family inclusion have on the amount of clinically/psycho-socially relevant information exchanged between the patient/family and the clinician, retention of information from a health encounter, satisfaction with the encounter/clinician, adherence to recommended treatment, and outcomes of conditions that could benefit from social support (e.g., chronic disease management, consistent prenatal care, weight loss)? Other possible outcomes include improved patient satisfaction, improved family satisfaction, and increased likelihood that patient desires regarding level and type of intervention are adhered to.

Community Involvement in Health Care Planning and Delivery

(For further discussion of this issue, see Category C: Research Agenda on Organizational Supports)

Questions related to community involvement are aimed at isolating those characteristics of community that may have an impact on health care delivery and health outcomes, and community involvement as an intervention. Desirable outcomes might include more community support for individuals or families during illness, routine involvement of the community program design and delivery, greater community acceptability and utilization of health programs, and greater satisfaction with health programs.

- Which characteristics of community support or facilitate positive social and behavioral outcomes in health programs? Who are the appropriate representatives to involve? What level of involvement should be sought, at what points in the process, and over what period of time?
- Do specific attributes or mechanisms of community involvement have a measurable effect on desired health care delivery and health outcomes?
- How can the impact of community involvement on health care delivery and health outcomes be measured? Are different measures appropriate for different communities?
- What skills are needed by health planners and providers to successfully solicit community input and integrate that input into health planning and delivery?

Methodological and/or Policy Considerations Influencing Future Research

It may be difficult to manage and account for some of the complex variables that arise when looking at the impact of family and community on health care delivery and health outcomes. For example, conflict between patients and family, multiple community stakeholders with differing perspectives or agendas, and other psychosocial dynamics may confound results. The definitions of a successful outcome may also vary by stakeholder group

Research involving community collaboration or participation often requires more time than other types of health services research because time must be spent in relationship building and negotiating the needs/opinions of health care planners and community members. Grants should take this into account and funding agencies should provide more protected time and overall project time for this type of research.

Research Agenda on Coordination of Conventional Medicine and Traditional Practices/Healers

Definition

Coordination of conventional medicine and traditional practices/healers refers to the blending of Western medicine with that of other cultures. In many ethnic communities, health status, disease causality and health care treatment may be defined or explained through traditional or folk models. These models differ from Western biomedical explanations in that illness could be caused by injuries, environmental factors, or interpersonal conflicts; attributed to witchcraft, sorcery, spirits; or result from violating cultural, religious, spiritual or traditional norms. Responses can differ from that of conventional medicine, resulting in the use of traditional practices/remedies such as herbal remedies, acupuncture, massage, and prayer rituals; and /or consultation with traditional healers or practitioners. For some, the use of traditional practices/healers may be the first and only approach to dealing with health-related concerns, while others may feel that coordination of both traditional and conventional approaches is beneficial. Understanding these alternative models may help to uncover potential barriers to service delivery while providing the opportunity to integrate specific components into conventional practice.

Synthesis of Findings from Literature Review

An extensive amount of literature was identified that describes alternative diagnostic/prevention methods, traditional healing practices utilized by individuals, and the use of traditional healers. These descriptive articles argue persuasively that culturally competent care should attempt to coordinate components of alternative systems and practices with conventional approaches to care.
The majority of literature examining the impact of traditional practices/healers is process related; very little research was identified that measured the impact of the interventions on health care delivery and health outcomes. Several studies examined issues such as motivation for seeking care, frequency of use, whether traditional practices were used in conjunction with conventional services, and level of awareness and knowledge regarding alternative methods. Findings from these studies suggest:

- Traditional healers are consulted for common medical conditions.
- Using alternative methods in conjunction with conventional methods can be an effective approach to avoid conflict between therapies, improve communication between patients and providers, and to help increase adherence to recommended treatments.
- Patients are reluctant to inform clinicians and other members of their community about the use of traditional practices/healers for fear of judgment and stigmatization.

A few studies describing methods by which traditional healers were integrated into conventional systems of care were identified. These studies detailed how traditional healers were used as consultants in cases involving traditional beliefs and subsequent increases in service utilization were attributed to their use.

Key Research Questions

- How does failure to coordinate/integrate adversely affect patients (e.g., dangerous interaction between conventional and traditional treatments, poor communication, failure to adhere to treatment and/or return for follow-up visits)?

- What motivates patients to attempt to integrate traditional practices with conventional medicine? At what point do they make these decisions, and how do they go about coordinating care? How do patients decide whether to share their participation in traditional treatment with conventional clinicians, and how can this sharing be encouraged?
- How can traditional healers/practices be coordinated with conventional medicine? What models might be appropriate for implementation (e.g., programs for certain conditions vs. others; programs that coordinate both types of practitioners at one site vs. services coordinated remotely)?
- Do patients show improvements in certain outcomes (satisfaction, adherence to treatment return for follow-up visits) when participating in coordinated care vs. conventional care alone?
- Which approaches to coordinated care have the greatest impact?
- What types of conflicts arise when attempting to coordinate traditional and conventional treatments or to be supportive of dual but separate treatment-seeking by patients? What are the most effective resolution processes to mediate conflicts that arise as a result of the use of traditional and conventional practices?
- What are the concerns of Western clinicians who are reluctant to coordinate or acknowledge the use of traditional practices/healers? What preparation is needed by clinicians and health care organizations to make coordination successful?
- What information or training helps clinicians and other staff effectively coordinate with traditional healers/practices?

Methodological and/or Policy Considerations Influencing Future Research

Methodological challenges related to this research include difficulties in:

- Mounting coordinated/integrated programs to study, due to the challenge of obtaining funding for both research and the demonstration project.
- Structuring good comparisons (i.e., when coordination does not take place, it is still necessary to quantify traditional use and problems with lack of coordination).
- Identifying what elements of coordinated programs are responsible for positive results.
- Being able to generalize beyond one particular model approach or community that is being studied.

Researchers should be alert to the need to actively involve ethnic community representatives and/or traditional healers in study design and execution. RAC members also expressed concern that this research focus on the dynamics and outcomes of coordination, and not on testing the "efficacy" of traditional treatments or healers. (The NIH National Center on Complementary and Alternative Medicine is looking at efficacy questions related to many traditional practices.)

From the practice and policy perspective, what are the implications of supporting/encouraging the use or integration of traditional practices/healers in the absence of funding or reimbursement? Given that some insurers are offering partial coverage of "alternative" therapies such as acupuncture and massage therapy, how do providers fairly decide which treatments to cover or offer, lacking studies that conclusively demonstrate the efficacy of traditional treatments?

III. CATEGORY B: LANGUAGE ASSISTANCE

Research Agenda on Language Barriers, Bilingual Services, Oral Interpretation, and Translated Written Materials

Definition

Language assistance refers to interventions, such as bilingual services, oral interpretation, and translated written materials, to overcome language barriers and improve the quality of health care. While guidance from the U.S. Department of Health and Human Services requires health care providers who receive Federal funds to ensure that language barriers are bridged between limited-English-proficient (LEP) patients and providers, how and whether this is achieved varies considerably. The lack of a widely accepted standard definition for qualified interpreters or a quality standard for translated written materials has implications for studying the impact of these interventions on health care delivery and health outcomes. (For details about the linguistic interventions described here, please consult the text, commentary, and discussion on CLAS standards 4-7, in the CLAS Standards Report (U.S. Department of Health and Human Services Office of the Secretary, 2000).)

Synthesis of Findings from Literature Review

Findings from the literature search can be separated into two themes; studies that analyze or describe the impact of language barriers on outcomes and those that examine the impact of language assistance services on health care delivery and health outcomes. The literature defines language assistance services as the use of bilingual staff communicating directly with patients, the provision of interpretation services through professionally trained (or untrained) interpreters, bilingual clinical/support staff, or family members; and the dissemination of translated written materials. Outcomes examined in the literature include patient satisfaction and perceptions of care, patient comprehension, utilization of health services, referrals, adherence, quality of interpretation and patient-provider communication.

Impact of Language Barriers on Health Care Delivery and Health Outcomes

Studies that examined the impact of language barriers on health and health care have documented the need and importance of providing language assistance services. Language barriers were consistently reported to decrease satisfaction among LEP patients. Research also shows that patients who face language barriers make fewer visits to clinicians and receive fewer preventive services. Studies reported that LEP patients spent less time in the emergency department encounter, were less likely to use or return to clinics, received less testing and prescriptions than English speaking patients, scored lower on health knowledge and had longer hospital stays.

LEP participants also noted that testing and medication side-effects were not explained, and studies found that patient understanding of diagnosis and treatment was also affected. Language barriers also contribute to inaccurate communication, misdiagnosis, and inappropriate treatment. Limited English speakers have also been found to receive fewer preventive services, report worse health status, and are less likely to have a regular source of care. These findings support the assumption that language differences create significant barriers to care, and that valuable medical information is not being communicated to or from the provider in the absence of language assistance services, thus compromising access to health care and the quality of the clinical encounter.

Impact of the Provision of Language Assistance on Health Care

The majority of studies measuring the impact of language assistance services assessed impact of interpreter services on outcomes such as:

- Patient and provider satisfaction with different forms of language assistance services, patient satisfaction with specific health service sites or departments, and satisfaction with level of communication during the clinical encounter
- Patient's understanding of diagnosis and treatment
- Utilization of services (emergency, preventive and primary care)
- Adherence with follow-up appointments
- Length of stay
- Duration of health care encounter
- Number of tests

Studies examining the impact of language assistance services on the outcomes listed above report increases in patient satisfaction and a decrease in the number of problems reported in the patient-provider encounter. Findings from these studies also suggest that more highly qualified interpreters (those with training and/or qualifications) had greater impacts, although variations among study designs and intervention characteristics prevent any further generalization of findings.

Several studies suggested that improvements in the delivery of care and utilization of services are linked with the use of interpreter services. They reported increases in the amount of time spent with patients, reduction in diagnostic testing disparities among English-speaking patients versus LEP patients, higher clinic return rates, and increases in primary care services utilization. Variations in the number of tests ordered may be attributable to several factors including the use of excessive testing in the absence of quality verbal patient assessment and medical history taking. Studies also reported graded increases in health knowledge with the provision of different types of language assistance services. One study looking at the financial impact of interpreter services reported that non-English speakers incurred higher mean costs for diagnostic testing when language barriers went unaddressed. With the assistance of professional interpreters, no increase in testing costs was noted above a control group of patients who were English-speaking.

The Interpretation Process and Translation

Additional studies examined the quality and accuracy of various forms of interpretation services and differences in mechanisms of delivery. Specifically, these studies examined the use of family members as interpreters to determine the quality of interpretation, distortion in interpreter-related messages during clinical evaluations, number of patient-provider utterances and comments, and frequency of errors and satisfaction. This literature documented some problems in interpreter encounters, especially when untrained interpreters are used.

One study suggested a reduction in the level of patient-provider communication when using interpreter services, as comments rendered by patients through an interpreter were often ignored by providers. Some studies reported reduced satisfaction, embarrassment and concealment of important information when family members or friends interpret, while others describe patient preference for use of a friend or relative.

Another study reported that patients had higher levels of satisfaction with simultaneous remote interpretation assistance compared to face-to-face consecutive interpretation services.

These findings strongly validate the need for additional research, and may reflect the fact that professionally trained interpreters have not been used as the standard in many studies looking at interpretation and quality or satisfaction.

Although a formal search of studies on translation was not undertaken, a few studies were identified that examined the complexity of translating/interpreting conventional medical terms into other languages or cultural contexts. This issue has significant implications for a variety of issues, including health literacy and choice of terminology, both orally interpreted and translated.

Key Research Questions

The Research Advisory Committee (RAC) identified four categorical areas around which to structure future research efforts on language assistance: impact, cost-related, organizational, and translation research questions.

Impact Research

- What is the impact of different language assistance services on communication, patient and provider satisfaction, service utilization (including screenings, type of services provided, diagnostic procedures, and treatment), follow-up, adherence, errors, and health outcomes? (This question is intended to examine the effectiveness of different types of language assistance services, e.g., bilingual staff and clinicians, professional interpretation, ad hoc interpretation, remote telephonic and video interpretation.)
- Does the impact of interpreter services vary across language or culture?
- Does the acquisition of secondary language skills by health professionals have a desirable and measurable impact on outcomes? What level of proficiency is necessary to conduct basic or complicated medical encounters, and what is the minimal level of training required to reach that proficiency?
- Is there a differential impact between clinicians who simply have language skills and those who have knowledge of cultural issues as well? Does being a native speaker or coming from the same country of origin make a difference?
- What is the impact of untrained interpreters versus trained interpreters on different outcomes? If there are differences in quality between these two groups, do they have a measurable impact on intermediate outcomes (e.g., comprehension, adherence)?
- What is the impact on intermediate outcomes of use of family and friends as interpreters, controlling for language group, patient age, and relationship of the patient to the designated interpreter?
- What is the impact of gender concordance between interpreter and patient on communication and patient satisfaction, and does this vary by ethnic or religious background?

Cost-related Research

- What are the cost-benefits of different types of language assistance services? What are the costs associated with not providing interpreter services?
- What impact does the existence of language assistance services have on selection of providers or plans by patients, and what are the cost implications of that selection?
- In what circumstances is it more cost-effective to employee staff interpreters vs. contract interpreters?
- How do the costs and benefits associated with the provision of language assistance vary across different types of services, institutional settings and geographic locations? Do any differences suggest variable requirements for language assistance?

Organizational Research

- In addition to cost, what other factors affect organizational decisions to use interpreter services?
- At what points of contact (e.g., nurse advice line, appointment making operations, membership services, health promotion programs, medical office receptionists, clinical encounters) does the provision of language assistance (through bilingual staff persons or interpreter services) make a difference to satisfaction, service utilization, follow-up, communication, adherence, errors, and/or health outcomes?
- What are the components of an interpretation services and translation program that improves satisfaction, service utilization, follow-up, communication, adherence, errors, and/or health outcomes?
- Are health care staff more inclined to use staff interpreters, bilingual staff, or outside services such as contract interpreters, remote telephonic or video interpretation? What factors influence decision-making in this area?
- What are the human resource management considerations (including cost) involved in using bilingual staff with other responsibilities as interpreters? Are such staff encouraged or required to be specially trained as interpreters, and what are salary/union contract ramifications?
- What technology or physical plant considerations are prerequisites to implementing an interpreter services program successfully (e.g., telephone wiring in examining rooms, examining rooms large enough to accommodate interpreters)?
- What methods (verbal and written) of notifying patients of their rights to interpreter services are most effective in increasing utilization of interpreter services?
- What other factors are behind the reluctance of clinicians to utilize available interpreter resources and how can these barriers be overcome?
- What financial incentives or changes in reimbursement methods can increase utilization of interpreter services?
- What governmental or accreditation policies are most successful in persuading health care providers to provide language assistance for LEP patients?

Translation and Miscellaneous Research Topics

- Does translated signage improve patient comfort or ability to move through health care facilities?
- Do translated written pre-operative instructions lead to decreased rescheduling of procedures because of inappropriate patient preparation?
- Do translated discharge forms result in a higher rate of attendance at follow-up appointments with either specialists or primary care clinicians?
- Do translated prescription instructions lead to fewer patient medication errors and/or better adherence?
- Are verbal (interpreted) instructions more effective than translated written materials for certain patient groups (by age, ethnicity, or education)?
- Do verbatim translated consent forms vs. summarized consent forms lead to different choices about undertaking high-risk procedures?
- What are the best approaches for communication of written materials with patients who do not read, or who speak a language without a written form?
- How critical is it to accommodate regional or dialectic differences in large language groups (e.g., Spanish, Arabic, Chinese)? How do patients respond to occasional word idiosyncrasies?
- Do patients seek language concordance because they have the choice or because these are the only providers available to them? Do some LEP patients deliberately seek out non-concordant providers and staff based on a perception of higher quality of care?

Methodological Considerations and Barriers to Conducting Research

The RAC felt that the measurement of intermediate outcomes such as communication, patient comprehension, encounter follow-up and adherence, as well as measurement of satisfaction and subjective determinations of health status, was achievable. However, several methodological challenges may make it difficult for research projects to clearly demonstrate a link between language assistance interventions and health outcomes. The population that needs language assistance services has a broad range of health care needs (obstetric care, preventive services, acute care, and care for a wide variety of chronic conditions). Research studies conducted using this heterogeneous patient population are the most likely to be generalizable, but it is difficult to find generic measures of health outcomes that are applicable to all patients and sensitive to clinically important changes in health. Thus, these studies may need to rely mostly on intermediate outcomes. In addition, studies should be conducted among patients with well-defined conditions (e.g., asthma, heart disease). Studies of narrow patient populations are the least likely to be generalizable, but this approach allows the use of condition-specific health status measures that are more sensitive for detecting clinically important changes in health.

There was a strong consensus from the RAC that research in this area has been hampered by several factors:

- Difficulty of designing experimental studies because of ethical issues such as creating a comparison group for whom interpretation is not provided. This could be overcome by conducting before and after studies in institutions planning implementation of a new interpreter service.
- Lack of funding for large-scale studies that would permit a well-designed, controlled trial of language assistance.
- Limited or non-existent use of standardized definitions of the term interpreter and translation. In order to conduct broader organizational comparisons, reliable and valid measures of interpretation quality will need to be developed. A review of the practices of organizations implementing these services may assist in the identification of effective measures.
- The need for national studies, large government databases, and health care organizations/plans to collect data on the primary language of patients and interpreter service use.
- Difficulty getting smaller studies published because of lack of understanding among reviewers of issues described above.

IV. CATEGORY C: ORGANIZATIONAL SUPPORTS FOR CULTURAL COMPETENCE

Organizational supports for cultural competence encompass activities that can be undertaken at the organizational level to support the delivery of cultural competence interventions. (For details about the organizational supports, consult the text, commentary, and discussion on CLAS standards 8-14 in the CLAS Standards Report (U.S. Department of Health and Human Services Office of the Secretary, 2000).) They may be prerequisites to implementing other CLAS interventions, and are necessary if the organization as a whole is to be culturally competent. Methodological and/or policy considerations affecting future research will not be discussed separately for each organizational support, but will be discussed for all organizational supports at the end of this section.

Because implementing these types of activities requires considerable effort and resources from health care organizations, there is a natural desire to know whether taking these steps has a positive impact on the efficient implementation of cultural competence interventions, patient and staff satisfaction, appropriate utilization of services, the cost-effectiveness of services, the quality of services, and other desirable effects. However, it may be that organizational supports should only be evaluated for their impact on the effectiveness and efficiency of clinical cultural competence interventions, not on patient outcomes, since their primary purpose is to improve the infrastructure of the organization and patient outcomes are too far removed.

State of the Literature

Many cultural competence supports have been implemented in a variety of different types of health care settings. Some of those organizations have conducted basic evaluations of their programming, and others need assistance from researchers to design and develop evaluations or outcome studies. At this time, very little published research has been identified that specifically examines the processes and outcomes of organizational supports for cultural competence. The literature describes single activities (as opposed to multi-element, systemic interventions) that can be institutionalized at an organizational level, such as the development of information systems, the implementation of training, or the recruitment of diverse staffing. A brief synthesis of the literature for each organizational support on which literature could be located is listed below. Most of the discussion, however, outlines areas of research that might help us better understand the benefit of these accommodations.

Research Agenda on Management, Policy and Implementation Strategies to Institutionalize Cultural Competence Activities

Definition

Management, policy, and implementation strategies to institutionalize cultural competence activities include written organizational strategic plans that outline clear goals, policies, operational plans; initial and ongoing organizational self-assessments of cultural competence-related activities; and management accountability/oversight mechanisms to provide culturally and linguistically appropriate services.

Synthesis of Findings from Literature Review

The literature consists primarily of descriptions of different approaches to implementing cultural competence activities in an organization, with very little analysis of outcomes. Two studies examine the different factors and forces that led to successful and unsuccessful implementation of cultural competence interventions.

Key Research Questions

In general, more documentary evidence is needed of the step-by-step processes of implementing cultural competence activities, as well as evaluations of what processes are more successful than others. Further work investigating the barriers and supports for successful implementation programs is also necessary. Other issues worth investigating include:

- What factors or forces encourage management to commit to cultural competence (e.g., regulatory, community pressure, staff pressure, and market-expansion aspirations)? How does cultural competence get adopted into the organization through non-management channels (e.g., staff-driven efforts to implement discrete activities in a piecemeal approach)?
- Under what circumstances is the centralization of responsibility for the organization's cultural competency more/less effective than decentralized approaches? At what levels of an organization, if any, is staff responsible for cultural competency in the organization more effective than tasking cultural competency to staff with other duties?
- What are the barriers or limitations to the adoption of cultural competence strategies (e.g., cost, time, resource allocation, staff, and lack of expertise)? What is required to overcome these barriers?
- Does the existence of explicit plans and strategies for the implementation of cultural competence interventions facilitate and improve the delivery of those services over an ad hoc approach?
- Are there any organizational preconditions or critically necessary management or policy components required for the successful implementation of desired interventions?
- What impact does the implementation of organizational self-assessment have on: staff awareness of cultural competence and the needs of culturally diverse populations, motivating improvements on cultural competence within the organization, improving the quantity and quality of culturally competent services over time, and overall organizational strategic planning?
- Do organizational cultural competence assessment tools have to be organization-specific (e.g., for hospitals, health plans, community health centers) or can they be generic?
- Can instruments be designed to reliably compare cultural competence across organizations?
- Should assessment tools measure the ability to provide CLAS to specific ethnic/cultural populations, or should it measure the ability to serve diverse groups?

Research Agenda on Community Involvement in Cultural Competence Program Planning, Design, Implementation, Governance, Training, and Research

Definition

Community involvement includes participatory, collaborative partnerships with communities, and formal and informal mechanisms to facilitate community and patient/consumer involvement in designing and implementing cultural competence-related activities.

Synthesis of Findings from Literature Review

Many stakeholders have postulated that involving ethnic communities in the design of programs will lead to higher satisfaction with and better utilization of services. Community input mechanisms that have been described in literature include surveys, telephone and in-person interviews, focus groups, community meetings, community advisory committees, community members on standing organizational committees, and community member participation in program design and evaluation committees.

For discussion of the relevant literature, see Category A–Research Agenda on Family/Community Inclusion in Health Care Delivery and the below Research Agenda on Design and Use of Surveys and Profile Instruments to Plan for Services and Measure Satisfaction and Quality.

Key Research Questions

- What are the desirable, measurable outcomes of obtaining community input at the organizational or programmatic level? Which outcomes benefit the users of services or the community, and which benefit the organization? What mechanisms for obtaining input maximize which outcomes?
- Does having ethnic community advisory committees or other mechanisms of community input have a measurable and beneficial effect on the successful implementation and acceptance of plans, policies, and programs of culturally competent interventions, either at the organizational or programmatic level?
- What are effective models for soliciting input to inform organizational strategic planning?
- To what extent is community input used in subsequent decision-making processes?
- Does the existence of community input mechanisms improve the perception of a health care organization among the community and/or result in increased health care-seeking behavior or utilization of services?
- What are the best ways to obtain fair representation in community participation activities of the different communities that the organization serves? What methods are useful for supporting ongoing involvement by consumer representatives?

Research Agenda on Design/Use of Surveys and Profile Instruments to Plan for Services, and Measure Satisfaction and Quality

Definition

Surveys and profile instruments can be integrated into internal audits, performance improvement programs, patient satisfaction assessments, and outcomes-based evaluations.

Synthesis of Findings from Literature Review

Several descriptive studies examine multifaceted processes of developing survey instruments that are culturally appropriate for the purposes of gathering information to design and deliver health services. Quantitative and qualitative methods are used to gather relevant cultural information for the purposes of survey design, pilot testing and modification of the tool. Collaboration with communities in developing instruments was described in some of the studies.

Key Research Questions

- What kinds of survey information do organizations need to monitor the impact of culturally appropriate programs and systems?
- How are valid tools developed to gather information on patient satisfaction, given the difficulty of reliably measuring satisfaction across ethnic groups?
- What level of community input, data gathering and testing is necessary to develop culturally valid tools for information gathering, as many health care organizations have neither the time nor resources to engage in complex survey development processes for the purposes of service planning and design? Are there model instruments or templates that can be easily adapted? What are the benefits of the *process* of involving the community in survey design, above and beyond implementing an acceptable tool?
- Does the availability of cross-cultural health information systems result in beneficial utilization by providers and patients? Is this information incorporated into practice or behavioral change? What information delivery systems are most acceptable and most reliable?
- What are best practices in providing information about cross-cultural health care and cultural competence issues for everyday use by providers and staff? What kind of content is likely to be accessed on a regular basis? What training is needed for such a database to be utilized? Should it be a stand-alone system or incorporated into other information systems?

The following topics were not included in the original literature search. However, research questions are discussed on the following pages.

Research Agenda on Cultural Competence Self-Assessments and Ethnic Data Collection/Community Profiles

Definition

Cultural competence efforts are built upon an understanding of what populations a health care organization is serving. *Ethnic data collection* and the development of *community profiles* are thought to be an important cornerstone for cultural competence planning. Data collection includes documenting patient/consumer race, ethnicity, and spoken and written language in health records; integrating these data into the organization's management information systems; and periodically updating them. Data collection at the community level includes demographic, cultural, and epidemiological profiles of the community as well as needs assessments to accurately plan for and implement services that respond to the cultural and linguistic characteristics of the service area.

Key Research Questions

- What impact does the implementation of organizational self-assessments have on: staff perception of cultural competence and the needs of culturally diverse populations; motivating improvements on cultural competence within the organization; improving the quantity and quality of cultural competence services over time, and overall strategic planning?
- What remains to be done to develop valid and reliable instruments to assess organizational cultural competence?
- Is it possible and/or desirable to develop instruments that compare cultural competence across organizations, or do we want to simply be able to measure cultural competence within a single organization?
- What replicable models exist for the collection of race/ethnicity/language (r/e/l) data? Who should be involved in the planning of data collection systems? Who should be trained to collect such data?
- What adjustments to management information systems are necessary to integrate r/e/l data with other institutional data that would reveal trends in health status and health care delivery outcomes?
- How can the reliability of data collection on providers be improved (e.g., the accuracy of provider self-reports on language proficiency)?
- What are the resistance factors to providing, collecting and utilizing r/e/l data among both patients and health care providers? Are there ways these concerns can be allayed? What type of training and/or information is needed to improve attitudes and practices towards data collection practices?
- What level of detail related to r/e/l data is needed to adequately plan for and monitor the delivery of culturally competent services in health care organizations? (E.g., how many Arabic interpreters are needed? How many African-American clinicians should be in my network? Should a special PAP smear outreach program be developed for Vietnamese women?)
- What is the impact of the absence of formal policy related to r/e/l data collection at the time of enrollment and/or clinical care intakes?

- Does the easy availability of r/e/l data improve the timely delivery of culturally competent services, such as insuring an interpreter is present for appointments, sending materials in the appropriate language, or assigning enrollees to a concordant clinician if the enrollee doesn't select a clinician?
- How do patients use r/e/l data in selecting providers? Does that choice result in better outcomes? Does it result in adverse selection problems for providers?

Research Agenda on Culturally Appropriate Ethics, Conflict, and Grievance Resolution Processes

Definition

Ethics, conflict, and grievance resolution processes that are culturally and linguistically sensitive and capable of identifying, preventing, and resolving cross-cultural conflicts or complaints by patients/consumers are important for equitable treatment of minority patients/consumers.

Key Research Questions

- What models exist to facilitate the discussion and resolution of culture-related conflict situations, and are they culture-specific or usable generically across multiple ethnic groups?
- How can staff be best prepared for dealing with these situations in a way that minimizes the danger to clinician-patient trust, and what institutional policies work best to support staff and patients, especially in environments where many cultures are being served?
- Does the existence of culturally sensitive ethics, conflict, and grievance resolution systems prevent or improve the resolution of culturally based conflicts?

Research Agenda on Public Information about CLAS Standards Performance

Definition

Public information about progress on and successful innovations in implementing the CLAS standards, and public notice in communities about the availability of this information, can provide incentives to health care organizations to put a priority on cultural competence.

Key Research Questions

- What kinds of information do ethnically diverse populations want, need and use to make decisions about choosing health care providers and health care organizations? What types of information do purchasers want?
- Do issues of cultural and linguistic competence enter into decision-making processes?
- How can this information best be presented for different audiences?

Research Agenda on Implementation of all the CLAS Standards as a Comprehensive Organizational Strategy

Definition

The CLAS standards can function effectively as individual standards or as a comprehensive strategy to improve cultural competence across all facets of an organization. *Implementation of all the CLAS standards as a comprehensive organizational strategy* may produce greater impact than implementing the standards individually.

Key Research Questions

- What is the financial cost of implementing a comprehensive, organization-wide approach to cultural competence, such as described in the CLAS standards (including a determination of administrative burdens)?
- What is the administrative burden of putting these standards in place? Are there other non-cost barriers to accepting the implementation of CLAS activities?
- Will integration of standards put an organization into a deficit position or does non-compliance put an organization into a deficit position?
- Can cultural competence be integrated into other efforts rather than exist as a competing effort?
- What can be learned about incentives/barriers to compliance with other regulatory measures to change provider behavior (e.g., the Emergency Medical Treatment and Active Labor Act) that might be applicable to successful implementation of the CLAS standards?

Methodological and/or Policy Considerations Influencing Future Research

Studies of organizational interventions must compete with clinical studies for the research resources. Because clinical research has a more obvious direct impact on patient outcomes, both organizations and funders have favored it over research on organizational interventions. Most organizations that have implemented organizational interventions have done so because they believe in their effectiveness and are not inclined to produce evidence that they indeed work. Education and incentives may be needed to persuade health care organizations to test organizational interventions.

With respect to the types of studies that could be conducted, there need to be more comparisons of outcomes between organizations that do implement organizational supports for cultural competence and those that do not. Design issues will be complicated by the fact that many of these supports are not implemented in isolation but several at a time, and determining what intervention is responsible for what effect will be difficult, as will isolating other confounding variables. It will also be difficult to conduct studies that require large sample sizes because of the limited number of institutions involved in implementing organizational supports for cultural competence.

Part Three

Methodological and Practical Considerations Related to Conducting Research on Cultural Competence

While there is a common interest in better understanding the impact of cultural competence interventions, different stakeholders may be interested in different types of outcomes. Current research points to links between cultural competence interventions and intermediary outcomes, but the considerable methodological challenges of isolating the effects of cultural competence in the context of rigorous study designs will complicate the likelihood of making direct correlations between the interventions and improvements in health status or cost savings. Standardized data collection is essential for the feasibility and comparability of research in this area, and barriers to such data collection may continue to hamper research efforts for some time. Better awareness of cultural competence issues and linkages between key stakeholders will improve possibilities for research funding, publication, and dissemination.

I. METHODOLOGICAL CHALLENGES TO CONDUCTING CULTURAL COMPETENCE RESEARCH

There are a number of methodological challenges to conducting cultural competence research, especially research that seeks to make direct correlations between a cultural competence intervention and outcomes such as improvements in health status or cost savings. Some of the challenges are unique to specific interventions, but most are universal across all categories, and similar to those encountered in designing empirical studies on other emerging, multifaceted health interventions.

Definitions of Cultural Competence in Health Care

There are many different conceptual definitions of cultural competence in health care, and myriads of interventions and practices that purport to be culturally competent. Research that intends to evaluate the impacts of culturally competent interventions requires a consistent set of comparable elements. As a starting point, the overarching conceptual definition that guided this project was taken from the CLAS Standards Report (U.S. Department of Health and Human Services Office of the Secretary, 2000), which is based on Cross et al. (1989).

> *Cultural and linguistic competence is a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals that enables effective work in cross-cultural situations. "Culture" refers to integrated patterns of human behavior that include the language, thoughts, communications, actions, customs, beliefs, values, and institutions of racial, ethnic, religious, or social groups. "Competence" implies having the capacity to function effectively as an individual and an organization within the context of the cultural beliefs, behaviors, and needs presented by consumers and their communities.*

As part of the introduction process at the April 2000 meeting, members of the Research Advisory Committee (RAC) were asked to share their definitions of cultural competence. Several levels of cultural competence were described, including sensitivity and awareness, mechanisms and interventions to facilitate improved outcomes, an integrated belief system, and enhanced communication to improve knowledge regarding differences and how they impact health belief systems and utilization.

Some participants described cultural competence as an approach that should be adopted by organizations, including mechanisms, interventions, goals, and dimensions of care and services. Several individuals cited that they would like to see a movement towards operationalizing cultural and linguistic competence from this type of systems perspective.

Specific definitions of cultural competence shared by RAC members included the following:

- Mechanisms to promote culturally and linguistically appropriate services that produce impacts on treatment, access and outcomes.
- An everyday affair that needs to be routine, and needs to be lived, and needs to be experienced.
- An essential element of what we do, not so much a mechanism, or a process, or a vehicle but rather a core element.
- A worldview and realization that there are very different premises about what constitutes health, disease, wellness, and what one should do about them, specifically by enhancing communication among different levels of the health care delivery system with populations and key stakeholders.
- An integration of a worldview with a specific set of skills. Cultural competency is systemic and must be dealt with at multiple levels of system intervention.
- Education to enhance acceptance and awareness that cultural competency can influence and impact health services delivery.
- A strategy for encouraging systems change that results in increased patient satisfaction and improved health outcomes.
- Population-based interventions. Models that reflect the values and beliefs of the service population.
- Individual respect and collaboration.
- Being sensitive to issues that need to be addressed, yet may not be verbally communicated.
- A dimension of care or services.
- Quality of care and services.
- Cultural appropriateness and responsiveness.

Conceptual definitions are useful for elucidating the theoretical underpinnings and broad goals of cultural competence, but specific, activity-related definitions are necessary for both programmatic implementation and impact evaluation. For the purposes of conducting the literature review and developing topical research agendas, the project team focused on specific cultural competence interventions that might be correlated to improve health care delivery and health outcomes. As mentioned in Part One, the final list was derived primarily from the interventions described in the CLAS Standards Report, as supplemented by Brach and Fraser (2000). The list of cultural competence interventions can be found at the beginning of Part Two of this report.

The list of interventions can be said to constitute a general framework for the overall notion of cultural competence, especially within health care organizations. However, analysis of literature on these activities strongly highlights the lack of consistent parameters, standards and definitions within individual activities.

For example, cultural competence training means something different with respect to content, format, trainer qualifications, and trainee assessment in every single incarnation. From a practice standpoint, this makes it difficult to determine which approach is best for any given environment or population. From the research perspective, this variation makes comparison between studies or generalizability virtually impossible.
Another example of the impact of varying definitions is in the area of interpretation services. Before the issuance of Federal guidance (U.S. Department of Health and Human Services Office for Civil Rights,

2000), a health care institution could claim to provide interpreter services whether those interpreters were janitorial staff or trained and qualified medical interpreters. A review of the literature examining the impact of interpretation on satisfaction, comprehension, and other outcomes shows that comparing results among different studies is impossible due to varying definitions used, or due to a total lack of definition of the concept of interpreter. Other effects of the lack of standardized definitions are discussed further in the individual research agendas.

Practitioners may resist attempts to standardize cultural competence interventions, and in fact, such standardization may not be desirable. It is clear that many apparently successful cultural competence programs grew organically out of needs expressed by their communities. Many have suggested that true cultural competence, by definition, defies categorization or comparative evaluation. In other words, the needs of one neighborhood may be quite different from the services and approaches needed by another, even if they have similar demographic profiles. This consideration may become even more relevant when looking at culturally competent approaches involved in interpersonal encounters (e.g., between clinicians and patients).

While it may be difficult to standardize interventional elements, it could be more important, and potentially more feasible, to standardize the evaluative measures of cultural competence. For example, when assessing the impact of cultural competence training on health care providers, a single set of objective measures could be used to distinguish the varying levels of cultural competence exhibited by trainees and control group members. Currently there is no such standardization. Existing measures of organizational cultural competence vary greatly in their approaches, thus complicating their use in research.

Beyond definitions, additional work is needed on theoretical models, research instruments, and data sources that define and enable measurement of cultural competence. The lack of baseline information and previously published research suggests a certain level of complexity or the existence of impediments along with an absence of standardization among data collection instruments.

Study Design

Designing rigorous studies that intend to explore the link between cultural competence interventions and health and health care delivery outcomes poses a number of challenges as identified below.

- Strong analytic study designs ideally require experimental design randomization and prospective data acquisition. Such studies are lengthy and expensive.
- It may be difficult to document the incremental benefit of a culturally competent intervention over similar interventions that are not specifically culturally competent. For example, what sample size would be required to compare a generic clinical communications training, health promotion program or community health worker encounter to a program tailored with culturally competent elements to ensure that the extra benefit could be reliably quantified?
- It is important to clearly identify the change agent within the identified intervention. This is typically the provider of services, suggesting that it is necessary to have a large sample size of providers (rather than patients) in order to improve either the power or generalizability of the study. This will require treatment settings that can accommodate such studies (e.g., large provider groups and managed care organizations).
- Interactions between mainstream health care providers and the populations that would potentially benefit from culturally competent interventions are characterized by subtle and frequently indefinable nuances that may stem from a number of sources (e.g., culture, language, age, gender, socio-economic and acculturation status). Determining the impact of interventions will

be further complicated if clear definitions of the intervention and the desired outcomes are not well established.

- Considerable work must be done to develop study instruments that are themselves culturally competent (e.g., satisfaction instruments that are translated and reflect varying ethnic and cultural values). For some interventions, such as health promotion and education, no instruments currently exist to measure the standard intervention. However, such tools are necessary to accurately compare the impact of culturally sensitive program intervention versus a standard program.

- With respect to comparing the outcomes of studies on culturally competent interventions, collective findings may not be generalizable because of wide variations in approaches to a particular intervention (e.g., duties of community health workers, or curricular elements of cultural competence training). Additionally, the impact of interventions may not be the same from one ethnic group or geographic community to another, or from one type or practice setting to another.

II. DATA CHALLENGES

Gathering adequately detailed data sets for analysis is among the primary challenges to conducting cultural competence research. These challenges relate to data collected expressly for the purposes of individual research projects, as well as data that should be collected routinely for internal institutional review, government oversight, and/or retrospective research analyses.

There are multiple sources from which to gather data on interventions, particularly for use in historical cohort studies. These include existing medical, industry (managed care, HMO) and government resources (Federal and State health and human services agencies and bureaus, Federal clearinghouses), major literature databases, private/independent foundations and health policy organizations and associations.

However, many of these data sets are of limited value due to the absence of race, ethnicity and language (r/e/l) characteristics on patients. Institutions frequently do not collect this information because of administrative or financial barriers, or perceived legal prohibitions or patient resistance. Organizations may fear being perceived as discriminatory for collection of race-related data, either at the time of collection, or because subsequent analysis reveals disparities in care and outcomes. When r/e/l data is collected, its comparability is often compromised by a lack of standardization.

More specifically, the following issues will have to be addressed in order to facilitate large-scale data collection for research on cultural competence interventions.

Universal Issues

- Identification of a standardized list of accepted cultural competence data elements (patient-level and organizational-level)
- Clarification of misconceptions about the perceived illegality of collecting r/e/l data, and resolution of any outstanding conflicts between Federal and State rules, including those related to patient confidentiality. Efforts need to be made to comply with the Office of Management and Budget's role and ethnic standards (Office of Management and Budget, 1995), in order to promote standardization and comparability among data sets, although these standards may not facilitate close examination of country- or ethnic-specific population groups.

Institutional Issues

- Assessment of data collection activities to identify gaps in data collection.
- Discussion and resolution of administrative barriers to obtaining and analyzing individual health outcome and cost data.
- Absence of standardized r/e/l data collection mechanisms will require institutions to develop policies and practices regarding information management system changes and subsequent data collection.
- Creation of incentives for providers to participate in experimental interventions, and subsequent data collection on them.

Community/Individual Issues

- Clearer rationales for the purpose of data collection activities, both for administrative and research purposes. For example, ethnic community representatives could be involved in the design of data collection instruments for use in program design, quality assessment, and research. Patients could be informed that language information is being collected to plan for and assess the availability of interpreter services.

- Some target populations may resist the concept of participatory research further complicating data collection activities. RAC members have encountered anger and criticism from many communities about the "ivory tower syndrome," where communities feel they have been studied or experimented on without receiving anything tangible in return, including the results of studies. RAC members reported that many communities are no longer allowing themselves to be studied.

- Identifying participants for studies may be difficult. Individuals may have personal reasons (e.g., lack of time or family support, fear of unnecessary contact with 'authorities,' fear of documentation, etc.) for not wanting to participate, and attrition or mobility issues may affect participation in long-term studies.

III. BETTER LINKS BETWEEN RESEARCHERS AND CULTURAL COMPETENCE EXPERTS

The volume of currently published research should not be considered a definitive indicator of the number of efforts being made to establish the impact of cultural competence. Efforts are being undertaken to evaluate the impact of cultural competence interventions on outcomes by agencies and programs involved in program design and implementation. The aim of these assessments may not be to provide stringently controlled research information intended for publication, but rather to assess, validate and modify existing programs. Also, those most intimately familiar with culturally competent interventions may not have track records of running research studies and vice-versa. Efforts need to be made to enhance linkages between academic researchers and:

- Regional and national experts in cultural competence program design and standards-setting.
- Recipients of public and private funding who are initiating new programs or approaches.
- Health care providers and cultural competence intervention program managers, especially those involved in long-term data collection on their programs or on recipients of their services.
- Community leaders familiar with health problems and innovative interventions.
- Community-based researchers and evaluators.
- Funders of cultural competence interventions interested in program evaluation or empirical research

These linkages can facilitate a number of objectives, including enhancing awareness of the variety of cultural competence interventions, especially those that are ‘state-of-the-art’; highlighting to program managers and program funders the critical role of accurate data collection; and putting researchers in touch with potential study sites.

IV. FUNDING AND PUBLICATION ISSUES

As a relatively nascent field of research, prospects for funding and publishing cultural competence studies tend to be complicated by a number of interrelated factors. Many national research initiatives tend to be focused on specific disease concerns, marginalizing the impact of social or cultural issues in the context of more clinical investigation objectives.

Funding

A lack of awareness among many funders and reviewers of the impact of language and culture on health care delivery often hampers receptivity to research proposals. This is exacerbated by the small number of well-designed studies in this area, which make it difficult to use previous research successes to buttress arguments for further research. The kinds of studies that are likely to show linkages between cultural competence interventions and health outcomes require significant amounts of funding, making some funders unwilling to take a chance on an area of research that is still seen as marginal or high-risk. In many cases, funding may be necessary for both the cost of mounting the intervention as well as the research itself.

For many of the reasons described above, undertaking cultural competence investigations is also considered high risk by both committed and potential cultural competence researchers. Since the origin of funding is important in some academic institutions with respect to tenure and promotions, interest in this type of research needs to be generated in notable funding institutions such as the National Institutes of Health (NIH), the Agency for Healthcare Research and Quality (AHRQ), the Centers for Disease Control and Prevention, and major foundations. A number of recent funding initiatives by the NIH, (National Institute of Environmental Health Sciences and National Human Genome Research Institute, 2001; National Institutes of Health, 2001) show a new and promising level of interest in this area that should be embraced by researchers and other funders. Researchers should also look for funding opportunities even when an initiative is not explicitly on cultural competence. For example, AHRQ has a program announcement on patient-centered care (Agency for Healthcare Research and Quality, 2001) that references culturally competent physician-patient communication as a potential study area, even though the announcement is not headlined as being related to cultural competence or racial/ethnic populations.

Publication

Researchers working in this area have observed that many journal reviewers and study review committees lack familiarity or experience with cultural competence issues, complicating receptivity to research proposals and article submissions. Because cultural competence is often viewed as a topic of marginal interest, standards for acceptance appear to be higher, both from the perspective of study design as well as results. Often, the types of methodologies required to measure cultural competence are not embraced by reviewers.

A number of mediating approaches can be used. Editors from various publications/journals should be educated on the state of the field and what is considered acceptable and unacceptable science as it relates to cultural competence. Authors and field experts should be encouraged to engage in dialogue about the challenges of cultural competence research with journal editors within and outside the context of the review process. In some cases, the outcomes of culturally competent interventions may be more easily accepted if the information is embedded within the context of a larger, broader study, not the focus of the study. Efforts should also be made to submit research to journals that are more receptive to various types of studies, including administrative journals and non-U.S. based publications.

At the research design level, efforts should also be made to address the concerns of health care organizations participating in studies about how the project will affect ongoing operations or issues of confidentiality. Proprietary issues, publication or prior review requirements of a health plan may need to be addressed, along with the best approach for presenting the outcome of the research.

Dissemination

Overall, additional efforts need to be undertaken to communicate the most current knowledge on cultural competence research, including the proposed research agendas, to key stakeholders, including policymakers, providers, research funders, journal editors, and other researchers. National meetings highlighting current research, interventions, and information gaps, or dedicated workshops at other large meetings where such stakeholders meet, can be used to further efforts to improve the evidence base for cultural competence in health care.

Appendix One

Key Words Used in Literature Review

I. KEYWORDS USED FOR CATEGORY A: CULTURALLY SENSITIVE INTERVENTIONS

- adherence
- clinical training and cultural issues
- complaint/grievance procedures
- conflict resolution training
- cultural health beliefs
- cultural matching
- cultural parity
- cultural practices and medicine
- cultural responsiveness
- culturally appropriate health services delivery
- culturally competent encounters
- culturally diverse staff
- demographic matching
- enrollment practices
- ethnic parity
- healing beliefs
- healing systems
- health professionals
- language access policies
- marketing
- matching
- modern medicine
- policy
- racial parity
- spiritual beliefs
- staff diversity
- systems
- traditional health practices
- western medicine
- workforce diversity

II. KEYWORDS USED FOR CATEGORY B: LANGUAGE ASSISTANCE

- bilingual
- certified interpreters
- communication
- conflict/grievance resolution process
- consult forms
- cross cultural communication
- intercultural communication
- interpreters
- language/communication barriers
- LEP
- medical instructions
- medical interpretation
- medical interpreters
- non-English language assistance
- non-English materials
- non-English speakers
- patient/consumer rights
- patient compliance/non-English
- patient history/interpreter services
- patient-provider communication
- signage
- telemedicine interpretation
- telephone communication/interpretation
- Title VI
- translation services
- translators
- translated materials
- translated written materials
- written notices

III. KEYWORDS USED FOR CATEGORY C: ORGANIZATIONAL SUPPORTS FOR CULTURAL COMPETENCE

- assessment
- audits
- community/family member inclusion
- community based needs assessment
- conflict management
- cross cultural conflict
- cultural brokering
- cultural competence
- cultural mediation
- cultural profiling
- data collection
- data collection requirements
- data standardization
- delivery plans
- demographic profiling
- ethnic groups
- ethnicity
- evaluation
- GIS
- goals
- immigrants
- information systems
- institutional agenda
- integrated data collection
- languages spoken
- management plans
- migrants
- needs assessment
- neighborhood mapping
- operational plans
- organizational/systematic assessment
- organizational policy on data collection
- performance evaluations
- policies
- population mapping
- race
- racial groups
- strategic plans
- structure
- systematic plans

Appendix Two

Literature Reviews and Matrices

I. FORMAT OF APPENDIX TWO

For each of the three categories, Appendix Two contains discussions of the literature by topic, and matrices that summarize the literature

II. CATEGORY A: CULTURALLY SENSITIVE INTERVENTIONS

Cultural Competence Education and Training

The majority of studies on cultural competence education and training were essentially descriptive, but some studies examined the impact on trainees and on care that was delivered.

Descriptive Studies

Studies primarily describe cultural competence training in different educational settings, including nursing, social work, pediatric, and child psychology programs (Culhane-Pera et al., 2000; Flores, Gee, and Kastner, 2000; Freed, 1998; Gamble, 2000; Lindquist, 1990; Rankin and Kappy, 1993; Ricardo and Holden, 1994; Salcido and Garcia, 1997; Sublette and Trappler, 2000). Some discussed different educational techniques and course development, duration of training, content, and cross cultural skill modules. Various teaching strategies were discussed.

Training content described in the literature included a range of topics, such as an examination of issues pertinent to specific multicultural populations, cultural awareness and sensitivity, cross-cultural communication, use of language assistance services, culturally specific patient assessment and management, epidemiological assessment, and multicultural resource identification and utilization.

Impact on Trainees

The literature documented two applied study designs to assess impact: pre- and post- self reported change and quantifiable change. Studies that used self-assessment measurements of change in cultural knowledge with no comparison groups reported that participants felt their level of competency had increased significantly (Allison et al., 1996; Culhane-Pera et al., 1997; Edwards, 1997; Gany and de Bocanegra, 1996; Kurtz, 1999; Napholz, 1999), although one study reported a single instance of a trainees' negative attitudes intensifying as a result of an intervention (Sachdev, 1997). Some studies reported that change occurred in some areas of awareness and sensitivity, while not in others (Copeman, 1989; Farnill et al., 1997). While one study that compared a group of trainees to a group that did not receive training showed an impact in some aspects of cross-cultural adaptability (Majumdar, Keystone, and Cuttress, 1999), another study that compared "culture school" students with those who received alternative training found no difference in knowledge gains between the two groups (Smith, 1998).

Some of these studies examined the impact of variations in presentation and training content. The literature described a wide range of cultural competence training methods, including lecture, clinical contacts, videotaped consultations, student log-books, community medicine projects, and affective methods. One study found that the affective approach led to higher scores in the areas of awareness and cultural competency than a more knowledge-based approach to teaching (Edwards, 1997). Kurtz (1999) described a structured, psycho-educational group format, using supportive self-help components. Salcido and Garcia (1997) found greater impacts demonstrated by trainees who used a video-training model over a helping skills or culture-specific model. Not all studies found differences in the impact of interventions they examined. Naphotz (1999) found both innovative and traditional cultural sensitivity improved nursing students' skill assessment scores. Pruegger and Rogers (1994) found no differences demonstrated in pre- and post-tests between the experiential approach and the lecture approach, although qualitative data from personal documents indicated significantly greater effects of the experiential treatment.

Impact on Care

Few studies went beyond examining the impact of training on trainees to see what impact trained clinicians have on patients. Wade and Bernstein (1991) found that counseling clients assigned to experienced counselors who had received culture sensitivity training rated their counselor higher on credibility and relationship measures, returned for more follow-up sessions, and expressed greater satisfaction with counseling than did clients assigned to experienced counselors who had not received the additional training (control condition). Although same-race counseling dyads resulted in less client attrition, this factor did not influence client perceptions of counselors and the counseling process. Norman (1999) reported that patients of experienced counselors who had received cross-cultural psycho-educational intervention on counseling graduate students reduced two of five measured symptoms of borderline personality disorder diagnosis, compared to patients of experienced counselors who did not receive the training.

Lefley (1984) found that cross-cultural training of mental health clinicians and administrator led to a significant increase in minority use of services and reductions of drop-out rates.

Thom and Tirado (2000) are in the process of looking at the impact of a cultural competence training intervention on measures of cultural competency, patient trust and satisfaction, adherence to treatment, and control of diabetes and hypertension.

There is a need to define which are the most desirable outcomes from the patient-provider relationship, and which are the most reliable indicators of positive improvements that result from training. Measuring satisfaction may have more to do with a response to someone's personality than the effect of training.

Research Considerations

Across all the studies there are fundamental problems with the myriad definitions of training: since there is no universal standard for training, nor a standard definition of cultural competence, there can be no comparability from one study to another of the "cultural competence" of subjects participating in different training programs. This suggests that first we must study what behaviors and attitudes have an impact on the delivery of care, then we need to study what teaching methods work best to improve them.

The content of training described in these studies varied widely, and was not always thoroughly described. It is difficult to discern whether different approaches to content resulted in better post-training scores, and impossible to make a link to improved behavior.
The vast majority of studies relied on pre-post self-assessments, did not utilize control groups appropriately or at all, and did not measure impact on trainees' behavior or on patients. The training interventions studied were mostly aimed at students, not providers, making it impossible to assess changes in behavior or service delivery.

The following additional research questions emerge from the literature.

- Are different educational techniques such as videotaping and experiential training significantly more effective than didactic training? Do some have a greater impact on behaviors and actions?
- Is there a certain level of improvement in knowledge or awareness that needs to be obtained before it can effectively translate into action? Can variations in behavior be attributed to level of knowledge, awareness or sensitivity?
- Do the effects of training vary in student populations versus provider populations?

- Are site/geographic-specific training modules more effective than general training? How are site needs determined and how effective are site-specific modules when population demographics change? Do patient-based outcomes shift?
- Are outcome differences associated with individuals who already have an interest in cultural issues?
- Does the potential exist for reinforcing negative perceptions and attitudes as a result of different training formats?
- Further research should examine provider behaviors and client perceptions and outcomes.
- Further quantitative and qualitative examinations are needed to assess cultural competence predictors (e.g., motivation for attending training, level of education, participation motivation, race, diversity of client contacts and experience).
- Can education on cultural issues translate into changes in behavior and service delivery in the absence of skills training?
- Are the effects of training sustainable?

Descriptive

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Culhane-Pera KA, Like RC, Lebensohn-Chialvo P, Loewe R (2000)	To identify the current status and content of the curricula and determine facilitating and impeding factors to multicultural curricula.	◆ 58% of responding family practice residency programs have an informal curriculum on multicultural issues, 28% have a formal curriculum, and 14% have no curriculum. ◆ Programs with a formal curriculum teach more content, employ more educational methods, use more evaluation techniques, and feel more successful than programs with an informal curriculum. ◆ Factors that facilitate curricula: cultural diversity of communities and residents, multicultural interests of faculty and residents, and faculty's multicultural expertise. ◆ There was a marked increase in the prevalence of multicultural curricula in family practice residencies from 1985 to 1998.	Survey Study Participants: Family practice residency programs
Flores G, Gee D, Kastner B (2000)	To determine the number of U.S. and Canadian medical schools conducting courses on cultural issues and to examine course format, content and timing.	◆ Few had separate courses addressing cultural issues (8% U.S./0% Canadian). ◆ Significantly more Canadian than U.S. schools provided no instruction on cultural issues. ◆ Few taught about specific cultural issues of largest geographic minority group present.	Survey Study Participants: U.S. and Canadian medical schools
Freed JR (1998)	To determine the effectiveness of a multicultural dental education program that teaches dental students, faculty and practitioners how to effectively communicate with a culturally diverse population. Module includes six videotapes and accompanying instructor's manuals. The module is currently being used in a 20-hour "Culture and Health" required course at UCLA School of Dentistry, at the University of Colorado and University of Michigan.	This Robert Wood Johnson Foundation project is in progress.	Study methods not reviewed

Descriptive

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Gamble VN (2000)	To help medical schools assess and develop curricula related to cultural competency by providing guidelines on what should be taught, how it should be taught, and how students are to be evaluated.	This Commonwealth Fund project is in progress.	Study design not reviewed
Lindquist GJ (1990)	Describes process to integrate international and transcultural content into undergraduate nursing curriculum.	◆ Demographics of student body were assessed. ◆ Mapping of educational content in required courses relative to cultural difference, health care delivery systems in other countries, nursing in other countries, and international health organizations and issues.	Survey Study Participants: Undergraduate nursing curriculum
Ricardo IB, Holden EW (1994)	To determine the extent of multicultural training in pediatric and clinical psychology predoctoral internship programs.	◆ 75% indicated frequent presence of multicultural issues at training sites. ◆ 35% of the sites reported formal mechanisms for addressing issues. ◆ Ratings of the importance of multicultural training and minority interns presence directly associated with presence of minority faculty. ◆ Didactic seminars provided. ◆ Conflict resolution mechanisms weak.	Survey Study Participants: Directors of training of pediatric and clinical child psychology predoctoral internships
Salcido RM, Garcia JA (1997)	To compare the efficacy of 3 social work cross-cultural awareness training modules: video training, helping skills, culture specific.	◆ Video training had greatest impact.	Pre-/post-test Study Participants: Master's of social work students
Sublette E, Trappler B (2000)	To examine cultural and religious issues arising in the treatment of Orthodox Jewish inpatients and describes the integration of religious practices into policies and procedures.	◆ Cultural and religious practices of Orthodox Jewish inpatients were accommodated by a health care system. ◆ Cross-cultural therapeutic goals included the integration of non-medical-compromising religious practices, increasing the cultural sensitivity of medical staff through training and understanding the role of religion in patient-provider communication.	Descriptive Study Participants: Orthodox Jewish inpatients

Impact on Trainees

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Allison KW, Echemendia RJ, Crawford I, Robinson WL (1996)	To determine the factors and variables associated with self-rated competence in providing services to multicultural groups.	◆ Most therapists reported competence in working with different client groups. ◆ Levels of self-perceived competence varied with different client groups. ◆ Exposure to culturally diverse clients was important in predicting therapists' perceived confidence. ◆ Most respondents reported accessing education and training experiences in order to assist in serving diverse client groups. ◆ A small number reported low levels of self-competence while still treating clients from diverse backgrounds.	Survey Study Participants: PhDs in counseling and clinical psychology
Copeman RC (1989)	To determine the impact of a teaching program aimed at improving knowledge of, and attitudes towards Aboriginal and migrant patients.	◆ Modest improvement in some attitudes. ◆ Knowledge improved in some areas but not in others.	Pre-/post-test Study Participants: 4th year medical students
Culhane-Pera KA, Reif C, Egli E, Baker NJ, Kassekert R (1997)	To determine the impact of a 3-year curriculum to increase knowledge, skills, and attitudes in multicultural medicine.	◆ Participants exhibited a significant increase level of cultural competence, communication and cultural knowledge.	Pre-/post-test, Faculty evaluations Study Participants: Medical residents
Edwards SL (1997)	To evaluate the effectiveness of a cultural competency educational model and to examine the impact of different educational models.	◆ Findings indicated significant differences between types of education provided. ◆ Significant improvements in the competency area of awareness were noted.	Pre-/post-test with comparison group Study Participants: Graduate students of social work
Farnill D, Todisco J, Hayes SC, Bartlett D (1997)	To evaluate an educational innovation designed to teach interviewing skills to pre-clinical medical students with the assistance of volunteers of non-English-speaking backgrounds.	◆ Volunteers and students indicated high satisfaction with methods and outcomes. ◆ Students gained self-confidence in cross-cultural interviewing skills. ◆ Students achieved satisfactory reliabilities and indicated significant gains in inquiry skills and the communication of positive attitudes. ◆ Skills in communicating empathy and using simple language did not improve measurably.	Post-test Study Participants: Pre-clinical medical students

Impact on Trainees

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Gany F, de Bocanegra HT (1996)	To determine the impact of learner-centered training program designed to enhance cross-cultural sensitivity and communication skills.	◆ Statistically significant improvements in knowledge and attitudes. ◆ Improvements in patient care.	Pre-/post-test Study Participants: All staff levels at clinic site
Kurtz AP (1999)	To determine the impact of education provided to foster parents of transcultural placements.	◆ Participants' skills in providing culturally respectful care for their foster children were enhanced.	Pre-/post-test Study Participants: Foster parents
Lefley HP (1984)	To present research results from the University of Miami's Cross-Cultural Training Institute for Mental Health Professionals cross-cultural training program.	◆ Impact of training on trainees, their agencies and clients. ◆ A data based discussion of affective reactions and identity issues raised by self-cultural awareness, with a special focus on minority providers dealing with value and status conflicts. ◆ Evaluating the effects of cross-cultural evaluation/long-range evaluation values and world views.	Descriptive Target Population: Mental health professionals
Majumdar B, Keystone JS, Cuttress LA (1999)	To examine the effectiveness of culture sensitivity training for foreign-trained medical graduates.	◆ Statistical significance was found in three subscales demonstrated in the experimental group.	Pre-/post-test with comparison group Study Participants: Foreign medical graduates vs. medical residents
Napholz L (1999)	To determine the impact of an innovative cultural sensitivity intervention as compared to traditional cultural diversity education.	◆ Both trainings significantly impacted the post-test scores for both groups.	Pre-/post-test Study Participants: Nursing students
Pruegger VJ, Rogers TB (1994)	To determine the impact of two cross-cultural sensitivity training modules: experiential vs. didactic approach.	◆ Quantitative measurement indicated no differences between approaches. ◆ Qualitative analysis of personal documents indicated greater effects of experiential treatment.	Randomized controlled trial, post-test. Study Participants: Undergraduate students
Sachdev P (1997)	To evaluate the impact of a cultural immersion experience as a cultural sensitivity technique.	◆ Three students demonstrated favorable changes in attitude and felt positive experiential gains. ◆ One student's negative attitude had intensified as a result of the experience.	Pre-/post-test Study Participants: Four undergraduate social work students.

Impact on Trainees

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Salcido RM, Garcia JA (1997)	To determine the efficacy of 3 social work cross-cultural awareness training modules: video training, help skills, culture specific.	◆ Video training had greatest impact.	Pre-/ post-test Study Participants: Master's of social work students
Smith LS (1998)	To determine the impact of culture school as an educational intervention.	◆ Experimental group demonstrated significantly greater cultural self-efficacy and cultural knowledge as compared to those who attended nursing informatics (control group).	Randomized controlled trial Study Participants: Registered nurses

Impact on Care

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Lefley HP (1984)	To present research results from the University of Miami's Cross-Cultural Training Institute for Mental Health Professionals cross-cultural training program.	◆ Impact of training on trainees, their agencies and clients. ◆ A data based discussion of affective reactions and identity issues raised by self-cultural awareness, with a special focus on minority providers dealing with value and status conflicts. ◆ Evaluating the effects of cross-cultural evaluation/long-range evaluation values and world views.	Descriptive Target Population: Mental health professionals
Norman DM (1999)	To examine the presence of bias toward the individuals with borderline personality disorder (BPD) and the effects of a cross-cultural psychoeducational intervention on counseling graduate students.	Pre-intervention scores indicated: ◆ A more biased or negative counselor attitude toward the BPD condition existed. ◆ Students who had prior cross-cultural education experience versus those who had no such experience had measurably equivalent levels of BPD bias. Post–intervention scores indicated: ◆ No reduction of bias immediately after course completion. ◆ Six weeks after receipt of intervention significant shift in bias occurred in two areas of the BPD factor categories: Threatening Gestures and Reactivity.	Pre-/post-test with 6-week follow-up Study Participants: Counselor education graduate students

Impact on Care

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Thom D, Tirado M (2000)	To describe the implementation and evaluation of a program to measure and improve cultural competency in primary care. This research will assess the impact of cultural competency on outcomes of care for patients with hypertension or diabetes who are self-identified as members of an ethnic minority, in three settings: 10 community-based, primary care practices; two academic-based primary care practices; and one family practice residency program.	Research in process.	Study design not reviewed. Study Participants: Ethnic minority patients with hypertension or diabetes.
Wade P, Bernstein BL (1991)	To measure the effects of cultural sensitivity training and providers' race on clients' perceptions of providers characteristics and the counseling relationship, and on clients' satisfaction	Compared to clients assigned to experienced providers who did not receive training, clients assigned to experienced providers who had received training: ◆ Rated providers higher on credibility and relationship measures, ◆ Had better follow-up compliance, ◆ Expressed greater satisfaction. ◆ Racial concordance resulted in less attrition, yet factor did not influence client perceptions of counselors and process.	Randomized controlled trial Study Participants: Counselors and their clients

Racial, Ethnic, and Linguistic Concordance

It is theorized that successful delivery of health services to different racial and ethnic populations requires an understanding of the cultural milieu of each distinct community, as well as the trust of communities and individual patients. This understanding and trust can be obtained by securing staffing patterns that mirror the targeted service population, although this can be difficult to achieve, especially for management positions (Glover, Shi, and Samuels, 1997). Saha and colleagues (2000) found that black and Hispanic Americans sought care from physicians of their own race or ethnicity because of personal preference and language. Language concordance achieved through teaching of "medical Spanish" is discussed in Category B of this appendix.

Impact on Service Utilization

Most of the research in this area has been conducted in the mental health field. Studies have reported that client-therapist language or ethnic match positively affected participation in treatment and increased the number of sessions of mental health treatment (Blank et al., 1994; Flaskerud, 1986; Flaskerud and Hu, 1994; Flaskerud and Liu, 1990, 1991; Takeuchi, Sue, and Yeh, 1995; Wade and Bernstein, 1991). Combined ethnic and language match has been shown to be associated with reduced emergency room visits by mental health patients (Snowden, Hu, and Jerrell, 1995), and language match alone has been associated with lower hospital admission rates (Lee and Rosenberg, 1998). However, evidence of concordance's impact on drop out rates is decidedly mixed. One study found a decrease in the drop-out rate for only ethnic match (Flaskerud and Liu, 1991), while another study found no ethnic match effect but language match for one particular subpopulation (Cambodians) increased drop-out rates (Flaskerud and Liu, 1990). A third study found that language and ethnic matches increased drop-out rates (Flaskerud, 1986).

Impact on Health Outcomes

Most studies that examined concordance's impact on health outcomes did not document improvements in health status of functioning (Flaskerud and Hu, 1994; Flaskerud and Liu, 1990, 1991; 1994; Takeuchi, Sue, and Yeh, 1995. The one exception was Porter and Beuf (1994), who found that African-American patients with vitiligo (a disfiguring skin disease) show better adjustment after treatment in predominantly a black hospital than African-American patients treated at a hospital where staff was mostly white.

Impact on Satisfaction and Patient-physician Communication

Black Americans report higher satisfaction, and receipt of preventive and other medical services with physicians of their own race, and Hispanics were more likely to report being "very satisfied" with their health care when seeing Hispanic physicians (Saha et al., 1999). Porter and Beuf (1994) found that African Americans were more positive to concordant physicians and hospital settings. Similarly, Cooper-Patrick and colleagues (1999) found that patients rated race concordant physicians as having a more participatory decision-making style, which was correlated with satisfaction. In contrast, Handler and colleagues (1996) found that the race/ethnicity of the caregiver was the one characteristic that did not appear to affect satisfaction with prenatal services. Similarly, Rubin (1999) found no effect on satisfaction of racial match between parents and their children's case managers.

Research Considerations

More research is needed to document the effects of matching with greater attention to minority oriented programs. Numerous methodological complexities need to be considered when measuring the impact of

racial and ethnic concordance in health services. For example, Sawyer and colleagues (1995) identified conceptual issues for cultural matching in research projects that included: 1) what to match (e.g., ethnicity, geographic area and/or residence, language, social class, social values, gender, etc.), 2) when to match, and 3) feasibility of matching (availability and costs).

Descriptive

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Glover SH, Shi L, Samuels ME (1997)	To examine the role of community and migrant health centers in eliminating barriers that typically limit the professional advancement of minority and women health care professionals.	◆ Community and migrant health centers have higher percentages of minorities in top management positions than general management, but do not necessarily reflect the minority compositions of the centers' service population.	Descriptive
Saha S, Taggart SH, Komaromy M, Bindman AB (2000)	To determine whether minority populations tend to utilize services from providers of their own race or ethnicity, and the reasons behind these health-seeking behaviors.	◆ Minority patients sought care from physicians of their own race because of personal preference or language concordance, not necessarily geographically accessibility.	Survey Study Participants: Black and Hispanic Americans

Utilization

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Blank MB, Tetrick FL, Brinkley DF, Smith HO, Doheny V, (1994)	To examine the impact of racial matching on service utilization.	◆ Same race dyads demonstrated greater service utilization. ◆ Failure to keep follow-up appointments was more prevalent in African American dyads when compared to Caucasian dyads.	Nonparametric statistical comparison of groups Study Participants: Consumers with a high degree of mental illness
Flaskerud JH (1986)	To determine the impact of a culture-compatible intervention on the utilization of mental health services.	◆ Intervention increased utilization, but language match and ethnic/racial match increased drop-out rates.	Analysis of program data Study Participants: Minority mental health services consumers
Flaskerud JH, Hu LT (1994)	To determine the relationship of a culture-specific mental health services program, ethnic matching, and use of medication and professional therapists, to participation, treatment and outcomes in Asian American clients.	◆ Treatment with medication had a significant relationship to total number of treatment sessions and admission-discharge scores. ◆ Ethnic matching had a significant relationship to the number of treatment sessions, but not admission-discharge scores. ◆ No relationship was found between other covariates, participation or outcome.	Analysis of program data Study Participants: Low-income Asian American mental health services clients

Utilization

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Flaskerud JH, Liu PY (1991)	To examine the relationship of Asian client-therapist ethnicity, language and gender match on mental health services utilization and outcomes.	◆ Both client-therapist language and ethnicity match had a significant impact on the number of client sessions. ◆ Ethnic match had a significant effect on drop-out rate. Language match had no effect. ◆ Outcomes (admission-discharge scores) were not impacted. ◆ Gender match had no consistent effect.	Analysis of program data Study Participants: Asian consumers of mental health services
Flaskerud JH, Liu PY (1990)	To examine the relationship of client-therapist ethnicity and language match on three therapy outcomes: number of sessions, drop-out rates and admission-discharge differences.	◆ Both therapist-client language and ethnicity match significantly increased the number of client sessions. ◆ Language match significantly affected dropout, however an increase in drop-out was found in the Cambodian sample. ◆ Ethnicity and language match did not impact admission-discharge differences.	Analysis of program data Study Participants: Southeast Asian consumers of mental health services
Lee ED, Rosenberg CR (1998)	To determine whether a difference in the preferred language of communication was associated with greater probability of admission to the hospital.	Comparison of patients whose preferred language was different from that of their primary ED physician, (language disparate) with those whose preferred language was the same (language matched). ◆ Disparate language adults were 70% more likely to be admitted to the hospital compared with matched language adults. ◆ Risk of adult admission was decreased in the presence of an ad hoc interpreter (e.g. family, emergency medical technicians, hospital staff). ◆ No differences were found in the pediatric group.	Survey of convenience sample Study Participants: Adult and pediatric emergency department patients and their physicians

Utilization

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Snowden LR, Hu T, Jerrell JM (1995)	To determine the relationships between ethnic and language matching, program involvement and emergency room use.	◆ Matching was associated with fewer emergency service visits. ◆ Clients in programs serving a large proportion of minority clients had fewer emergency service visits than those who participated in programs serving smaller numbers of minority groups.	Analysis of program data Study Participants: County-level mental health services data utilized
Takeuchi DT, Sue S, Yeh M (1995)	To examine the effects of ethnicity-specific mental health programs on return rates, length of treatment and treatment outcomes.	◆ Consumers who utilized services from an ethnicity-specific program had higher return rates and stayed in the treatment longer. ◆ Patient outcomes were inconclusive.	Analysis of program data Study Participants: Racially and ethnically diverse consumers of mental health services
Wade P, Bernstein BL (1991)	To measure the effects of cultural sensitivity training and providers' race on clients' perceptions of providers characteristics and the counseling relationship and on clients' satisfaction.	Compared to clients assigned to experienced providers who did not receive training, clients assigned to experienced providers who had received training: ◆ Rated providers higher on credibility and relationship measures. ◆ Had better follow-up compliance. ◆ Expressed greater satisfaction. ◆ Racial concordance resulted in less attrition, yet factor did not influence client perceptions of counselors and process.	Randomized controlled trial Study Participants: Counselors and their clients

Outcomes

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Flaskerud JH, Hu LT (1994)	To determine the relationship of a culture-specific mental health services program, ethnic matching, and use of medication and professional therapists, to participation, treatment and outcomes in Asian American clients.	◆ Treatment with medication had a significant relationship to total number of treatment sessions and admission-discharge scores. ◆ Ethnic matching had a significant relationship to the number of treatment sessions, but not admission-discharge scores. ◆ No relationship was found between other covariates, participation or outcome.	Analysis of program data Study Participants: Low-income Asian American mental health services clients
Flaskerud JH, Liu PY (1991)	To examine the relationship of Asian client-therapist ethnicity, language and gender match on mental health services utilization and outcomes.	◆ Both client-therapist language and ethnicity match had a significant impact on the number of client sessions. ◆ Ethnic match had a significant effect on drop-out rate. Language match had no effect. ◆ Outcomes (admission-discharge scores) were not impacted. ◆ Gender match had no consistent effect.	Analysis of program data Study Participants: Asian consumers of mental health services
Porter JR, Beuf AH (1994)	To examine the impact of a racially consonant medical environment on reaction to physical disability stemming from disease.	◆ Patients in a racially consonant context demonstrated significantly better adjustment than those patients who received care in a primarily white context. ◆ Sub-analysis showed that patients related more positively to black physicians and a black hospital setting, and that informal support networks were established between patients of the same race.	Interview with random sample Study Participants: African American patients with vitiligo
Takeuchi DT, Sue S, Yeh M (1995)	To examine the effects of ethnicity-specific mental health programs on return rates, length of treatment and treatment outcomes.	◆ Consumers who utilized services from an ethnicity-specific program had higher return rates and stayed in the treatment longer. ◆ Patient outcomes were inconclusive.	Analysis of program data Study Participants: Racially and ethnically diverse consumers of mental health services

Satisfaction and Patient-Physician Communication

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Cooper-Patrick L, Gallo JJ, Gonzales JJ, Vu HT, Powe NR, and Nelson C (1999)	To describe how the race/ethnicity and gender of patients and physicians are associated with physicians' participatory decision-making (PDM) styles.	◆ Patients in race-concordant relationships with their physicians rated their visits as significantly more participatory than patients in race-discordant relationships. ◆ Patient satisfaction was highly associated with PDM score within all race/ethnicity groups.	Survey
Handler A, Raube K, Kelley MA, Giachello A (1996)	To explore the characteristics of prenatal care that affect women's satisfaction.	◆ No differences were found in aspects of care that affect satisfaction. ◆ Issues that affect satisfaction included: "art of care," practitioner's technical competence, continuity of caregiver, and the atmosphere and physical environment of care setting. ◆ Caregiver's ethnicity did not affect satisfaction.	Focus group study Study Participants: Low-income Mexican American, Puerto Rican, African American and Caucasian women
Porter JR, Beuf AH (1994)	To examine the impact of a racially consonant medical environment on reaction to physical disability stemming from disease.	◆ Patients in a racially consonant context demonstrated significantly better adjustment than those patients who received care in a primarily white context. ◆ Sub-analysis showed that patients were more positive to black physicians and a black hospital setting and that informal support networks were established between patients of the same race.	Interview of random sample Study Participants: African American patients with vitiligo

Satisfaction and Patient-Physician Communication

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Rubin DB (1999)	To examine parent satisfaction with case management mental health services (CMS) and parent's perceptions of the cultural competence of their children's case managers.	◆ Mothers of children who were employed were significantly more satisfied with CMS than those who were not employed. Other demographics were not significant. ◆ Parents receiving intensive CMS were more satisfied than those receiving traditional case management when controlling for demographic variables and functional status of the child and family. ◆ Cultural competency scores were significantly related to overall satisfaction scores and intervened in the relationship between type of case management and parent satisfaction. ◆ Racial match of the parent and case manager was significantly related to cultural competency but not satisfaction scores.	Survey Study Participants: Parents of children with extensive mental health needs
Saha S, Komaromy M, Koepsell TD, Bindman AB (1999)	To determine the impact of racial concordance on patient's satisfaction and use of health care.	◆ Black respondents matched with black providers were more likely to rate their physicians as "excellent," to report receiving preventive care and requiring medical care during the previous year. ◆ Hispanic respondents were more likely to be very satisfied with their health care overall.	Survey Study Participants: White, black and Hispanic respondents

Community Health Workers

There is an abundance of descriptive literature on community health workers. Researchers have also examined the impact of community health workers on service utilization, health status, and satisfaction, although the volume of studies is considerably less.

Descriptive

The literature described the use of lay health advisors, content and structure of visitations, and how lay health advisors were utilized as part of a corrective strategy to supplement or modify existing programs. Buchanan (1999) described the successful use of *promotoras* in a teaching program aimed at increasing the number of health promoting behaviors among Hispanic adults. Earp and Flax (1999) reported documenting program process in terms of frequency of meeting times, group/individual encounters, and purpose/focus of meetings.

Impact on Utilization of Preventive Services

Studies indicated that the use of community health workers or lay health workers have a significant impact on the recruitment and utilization of preventive services. Burhansstipanov and colleagues (2000) reported that trained lay advisors were essential to gaining trust among American Indian women and were successful in increasing mammography screening utilization. Fernandez and colleagues (1999) reported increases in mammography screening among minority women and Weber and Reilly (1997) found the use of culturally sensitive case management increased screening rates nearly threefold. Bird and colleagues (1998) documented the increase in recognition, receipt and maintenance of breast and cervical cancer screening activities among an experimental group of Vietnamese women educated by indigenous lay health workers. The use of bicultural community health workers in the Hispanic population was found to improve completion rates of a diabetes education program as described by Corkery and colleagues (1997).

Impact on Health Status

Community health workers can impact health status by effectuating change in behavior, service utilization, and adherence, but few studies have examined those effects. For example, Corkery and colleagues (1997) found that although community health workers did not have a statistically significant independent effect on glycohemoglobin levels, they did improve completion rates of a diabetes education program which in turn improved glycemic control.

Barnes-Boyd, Norr, and Nacion (1996) found reductions in infant mortality correlated with home visits by teams of trained nurses and community health workers, although the reductions did not achieve statistical significance.

Impact on Satisfaction

A single study (Rodney et al., 1998) examined community health advocates' (CHA) impact on satisfaction. Researchers evaluated a community health advocacy program from three perspectives; management, health advocates and clients of health advocates. A subjective analysis revealed that all three groups were highly satisfied with the role and impact of CHAs, however, CHAs also described systematic barriers that prevent them from working effectively. The author postulate that the impact of CHAs on utilization and outcomes would be greater if these barriers were addressed.

Research Considerations

Future research needs to assess both program outcomes and health status outcomes, if arguments for incorporating lay worker outreach efforts into programs are to be validated. Process evaluation questions that need to be examined include:

- What proportion of the targeted population is successfully reached by community health workers?
- Who is the program failing to reach, and why?
- Do community health workers bridge gaps between what people in the community know, think, or understand, and what they need to maximize health utilization and outcomes?

The strength of scientific evidence linking community health workers directly to health outcomes is limited. Unfortunately, scientific studies linking community health workers to health outcomes will be somewhat difficult to conduct because the changing dynamics of targeted communities can also influence targeted outcomes. Outcome questions that need to be examined include:

- What components of the community health worker's role are effective in meeting community-based needs?
- Which of these can be linked with behavioral change?
- Which changes can be linked to improvements in utilization and health outcomes?

Descriptive

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Buchanan TJ (1999)	To determine the impact of *promotoras* (lay advisors) on the number of health promoting behaviors practices by Mexican-American adults.	◆ The *promotoras* teaching program was found to have a positive effect on the number of health promoting behaviors practiced by Mexican Americans.	Pre-/post-test Study Participants: Mexican American adults
Earp JA, Flax VL (1999)	To describe the activities of lay health advisors participating in a program to increase mammography screening in older African American women and describe lessons learned.	◆ Lay health advisors made approximately one group presentation every 3 months and one to three individual contacts per week. ◆ Group presentations were typically in churches and homes, and focused on who needed a mammogram and the information necessary to receive one. ◆ During individual encounters, advisors encouraged women to get mammograms or discussed fears.	Periodic self-examination testing Study Participants: Lay health advisors

Utilization of Preventive Services

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Bird JA, McPhee SJ, Ha NT, Le B, Davis T, Jenkins CN (1998)	To determine the impact of a community outreach intervention to promote recognition, receipt and screening interval maintenance of clinical breast examinations (CBE), mammograms, and Pap smears among Vietnamese American women.	Trained Vietnamese lay health workers significantly increased Vietnamese women's recognition, receipt, and maintenance of breast cancer and cervical cancer. Recognition of screening: ◆ CBE increased from 50-85%. ◆ Mammography increased from 59-79%. ◆ Pap smear increased from 22-78% Receipt of screening: ◆ CBE screening from 44 to 70%. ◆ Mammography screening from 54-69%. ◆ Pap smear screening from 46-66%.	Pre-/post-test Study Participants: Vietnamese American women

Utilization of Preventive Services

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Burhansstipanov L, Dignan MB, Wound DB, Tenney M, Vigil, G (2000)	To determine the impact of community health workers on the mammography screening practices of Native American women.	"Native Sisters," a trained lay health advisors program, was found to have a significant impact on recruitment.	Interrupted time series Study Participants: American Indian women in the Denver, Colorado area
Fernandez ME, DeBor M, Candreia MJ, Wagner AK, Stewart KR (1999)	To assess the effectiveness of a health promotion program that provides outreach in promoting mammography and Pap test screening among non-adherent women.	◆ Over half the women were racial and ethnic minorities. ◆ 75% reported annual incomes under $15,000. ◆ 49% reported having no insurance. ◆ Greater than 40 years of age: 67% were non-adherent to Pap test screening. ◆ Greater than 18 years of age: 68.9% were non-adherent to Pap test screening. ◆ Program was successful in increasing screening of non-adherent participants. 57.8% received mammo-grams, 36.5% received Pap tests.	Pre-/post-survey Study Participants: Minority women
Weber BE, Reilly BM (1997)	To improve mammography completion rates for urban women aged 52-77 years who had not received a mammogram in at least 2 years, using culturally-sensitive community health workers.	◆ Women in the intervention group (culturally-sensitive case management) were nearly 3 times as likely to receive a mammogram. Benefit persisted after controlling for age, race and prior screening behavior.	Randomized controlled trial Study Participants: Urban non-compliant women

Health Status

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Barnes-Boyd C, Norr KF Nacion KW (1996)	To describe an interagency home visiting program designed to reduce preventable causes of morbidity among normal socioeconomically disadvantaged infants at risk for adverse outcomes due to social factors.	◆ Results demonstrate that repeated home visits with ongoing infant health monitoring plus individualized and culturally sensitive teaching helped mothers maintain good health practices and identify illnesses early. ◆ Infants' outcomes during the neonatal period and at 12 months showed consistent, (statistically nonsignificant) positive effects on physical health. ◆ The postneonatal mortality rate among program infants was 4.7/1000. Rates for nonparticipants ranged from 5.2 to 10.9/1000.	Descriptive program evaluation Study Participants: African American mothers and their infants
Corkery E, Palmer C, Foley ME, Schechter CB, Frisher L, Roman SH (1997)	To determine the effect of a bicultural community health worker on completion of diabetes education in an inner-city Hispanic patient population and to evaluate the impact of the program on patient education, self-care behaviors, and glycemic control.	General findings: ◆ 63% completed the study and 37% dropped out. ◆ Dropouts were young. ◆ Drop-out rates showed no significant relationship to education or literacy-level. Patients with intervention: ◆ 80% completed the education program. ◆ The effect on completion was statistically significant. ◆ The effect on knowledge, self-care behavior or glycohemoglobin outcome was not statistically significant. All program completers: ◆ Knowledge levels and selected self-care practices significantly improved. ◆ Glycohemoglobin levels improved from 11.7% to 9.9% by program completion.	Comparison group Study Participants: Hispanic patients

Satisfaction

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Rodney M, Clasen C, Goldman G, Markert R, Deane D (1998)	To determine the effectiveness of community health advocates (CHA) from three perspectives.	◆ Directors/ managers of community sites at which CHA worked reported that CHAs were considered a positive force in meeting client needs and facilitating independence and were effective in the coordination of resources and outreach. ◆ CHAs indicated that the training program prepared them adequately for their roles and functions, yet identified systematic barriers that hindered their work. ◆ CHA clients revealed an overwhelmingly positive response to the CHA's work.	Survey Study Participants: Directors/managers, CHAs, and CHA clients

Culturally Competent Health Promotion

In addition to many articles describing various culturally competent health promotion interventions, a number of studies looked at the impact of these interventions on satisfaction, knowledge increase, behavior, utilization of preventive services, and health status. These studies, by and large, did not measure the additional impact of implementing a culturally competent health promotion intervention beyond the impact of implementing a health promotion intervention that was not specifically designed to be culturally competent. Instead they demonstrated that culturally competent health promotion interventions could be effective with minority populations.

Descriptive Studies

A number of articles described the process of designing programs and the methods and process of interventions used (Blackford and Street, 1999; Chen et al., 1992; Edwards et al., 1992; Gilliland et al., 1998; Griffin et al., 1999; Jackson et al., 1997; McPhee et al., 1997; Miano, Rojas, and Trujillo, 1996; Michielutte et al., 1994; Nevid, Javier, and Moulton, 1996; Shapiro and Simonsen, 1994; Soto Mas et al., 2000; Stillman et al., 1993). These interventions were largely developed in response to research showing a relationship between cultural beliefs and health behavior and service utilization (e.g., Bailey, Erwin and Belin (2000)).

Impact on Satisfaction

Griffin and colleagues (1999) found that participants responded positively to Native American Diabetes Project's culturally competent education program. Mattson and Lew (1992) found that a majority of clients of the culturally competent Southeast Asian Health Project were satisfied with the prenatal care they received. Neither study employed comparison groups. Rubin (1999) measured parents' satisfaction with their children's case managers and found that parents' perceptions of the case managers' cultural competence were related to those assessments.

Impact on Knowledge Increase

Flaskerud and Nyamathi (1990) described the impact of standard health promotion interventions on minority populations, and some evidence that cultural norms need to be taken into account was produced (Flaskerud, Nyamathi, and Uman, 1997). Several articles describing culturally competent health promotion interventions reported increases in knowledge among the target population. Some of them used control or comparison groups to control for secular trends (Alcalay et al., 1999; Dignan et al., 1998; Ferguson, 1996; Litrownik et al., 2000; Marin and Perez-Stable, 1995), while others only conducted pre- and post-tests (Duffy et al., 1994; Marin et al., 1990) or cross-sectional analyses (Marin and Perez-Stable, 1995). Not all studies found evidence of knowledge increases (Flaskerud and Akutsu 1993).

Only Stevenson and colleagues (1995) examined the difference in impact between a culturally sensitive and culturally dissimilar intervention, a video education on HIV for African-American teenagers, and found that while both approaches were effective in increasing AIDS knowledge scores, only the culturally sensitive intervention was effective with adolescents who claimed to "know a lot about AIDS." This last study in particular suggests that interventions may need to be highly specific and targeted to subgroups and subcultures as well as ethnicity in order to be optimally effective.

Impact on Behavior

Research results on culturally competent health promotion interventions' impact on behavior are mixed. Ferguson (1996) demonstrated that while knowledge increased as a result of peer counseling in a culturally-specific pregnancy program for African-American females, there was no difference between experimental and comparison groups in their use of effective methods of contraception nor delays in initiating sexual intercourse. Marin and colleagues (1990) found that although knowledge of cessation services increased after a media-based community intervention, smoking among Hispanics did not decrease.

On the other hand, Davis and colleagues (1995), showed reductions in tobacco use and increases in exercise as a result of cardiovascular education program for Navajo and Pueblo elementary school students. Studies have also found that a culturally competent cancer education program increased breast self-examination (Erwin et al., 1999; Erwin et al., 1996; Sung et al., 1997).

One study with no comparison group showed improvements in diet among African-American women who participated in a culturally-sensitive dietary intervention (Barnhart et al., 1998). Another study, also with no comparison group, found increases of breast-feeding among Navajo women after implementation of a culturally competent breastfeeding promotion program (Wright et al., 1997).

Impact on Utilization of Preventive Services

Research has shown that culturally sensitive health promotion can increase utilization preventive services such as mammography and pap smears (Dignan et al., 1998; Erwin et al., 1999; Erwin et al., 1996) and some researchers have gone on to explore what methods are most effective with particular populations. Bell and colleagues (1999) examined the response to different types of interventions to increase breast cancer screening among different ethnic minority women groups, and found that translated literature, a physician endorsement letter, and language support by outreach workers were most beneficial, but Urdu- and Gujarati-speaking groups were more likely to respond than Bengali and Somali speakers. McAvoy and Raza (1991) compared the effect of different methods of education on cervical cancer screening rates among Asian women and found that personal visits were most effective regardless of the health materials used, but videos may have been most effective with the hardest-to-reach group, Urdu speaking Moslem women. Yancey and colleagues (1995) found that videos shown in a clinic waiting room were also very effective in increasing cervical cancer screening among Blacks and Hispanics in both New York City and Los Angeles, and that similarity of results in both sites suggests that standard Spanish-language tapes may appeal to Latinos of different nationalities.

Impact on Health Status

Brown and Hanis (1999) described a diabetes education and support program developed with significant focus group and community input that was successful in significantly improving metabolic control in the target population. Jackson and colleagues (2000) described a health-care program culturally adapted to meet the needs of elderly Chinese residents, which resulted in reducing declines in health status. Nevid and Javier (1997) compared a multi-component, culturally-specific smoking cessation intervention with a self-help control group, and found that abstinence rates were significantly higher for the culturally-specific group at post treatment, with gradual declines in abstinence at six- and 12-month follow-ups but no long-term benefit was found for either method. Shintani and colleagues (1994) found that a traditional Hawaiian diet program resulted in weight loss, although long-term impacts need to be studied. Wang and Abbott (1998) showed that a disease management program operated in collaboration with the Chinese community in Hawaii resulted in decreases in blood pressure and maintenance of glucose levels by Chinese with hypertension

and diabetes. A study in progress of a patient-centered, culturally tailored, education and activation intervention with active follow-up by a depression case manager for African American patients suffering from depression is expected to produce further findings regarding interventions' impact on health status (Cooper, 2001).

Other Research Considerations

Virtually all studies compared cultural competent health promotion activities with no intervention, rather than comparing them to standard interventions. Research to establish the marginal benefit of modifying standard interventions to diverse populations need to be undertaken, although the sample size required to detest statistically significant differences is very large. Studies to date have also not isolated elements of multi-component interventions to determine which elements or combinations of elements are responsible for results. Finally, questions remain as how to generalize the successful elements of interventions, both across types of programs, and/or across or among ethnicities.

Descriptive

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Bailey EJ, Erwin DO, Belin P (2000)	To describe how qualitative focus group data informed a culturally competent community-based cancer education program for American-American women.	◆ Analysis of quantitative and qualitative data revealed a direct relationship between cultural beliefs and patterns with mammography utilization.	Quantitative and qualitative methodologies Study Participants: African American women
Blackford J, Street A (1999)	To describe a problem-based learning approach to support nurses working in a multicultural community in Melbourne, Australia, designed to assist nurses in their care for children and families of non-English speaking backgrounds.	◆ Problem-based educational packages were developed to assist providers in overcoming cultural and communication barriers in clinical areas and professional training programs.	Descriptive Target Population: Non-English-speaking families
Chen MS, Zaharlick A, Kuun P, Li WL, Guthrie R (1992)	To describe the implementation of the indigenous model for health education programming among Asian minorities.	◆ Explains the theoretical basis of the Indigenous Model that was targeted toward Southeast Asian minorities: Cambodians, Laotians, and Vietnamese. Lessons related to implementing the model for minorities are suggested.	Descriptive Target Population: Asian minorities
Edwards N, Ciliska D, Halbert T, Pond M (1992)	To describe a health promotion and advocacy project aimed at immigrants enrolled in English as a second language classes.	◆ Project was designed to facilitate the entry of new immigrants into the Ontario health care system and equip them with knowledge and skills to strengthen their preventive and promotive health practices.	Descriptive Target Population: Immigrants enrolled in English as a second language classes
Gilliland SS, Carter JS, Perez GE, Two Feathers J, Kenui CK, Mau MK (1998)	To present recommendations for development and adoption of culturally competent community health interventions in minority populations with type 2 diabetes mellitus.	◆ Experiences from the Native American Diabetes Project and the Native Hawaiian Diabetes Intervention Program are described.	Descriptive Target Population: Native Americans Native Hawaiians with diabetes
Griffin JA, Gilliland SS, Perez G, Helitzer D, Carter JS (1999)	To describe participant satisfaction with the Native American Diabetes Project.	◆ Results showed that participant satisfaction did not vary based on session delivery type or by session site. ◆ Overall, participants responded positively to sessions designed according to Social Action Theory and with cultural competency. ◆ Retention rates were 81% for group sessions and 91% for individual sessions.	Survey Study Participants: 8 Pueblo communities

Descriptive

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Jackson J, Kennedy BL, Mandel D, Carson M, Cherry BJ, Fanchiang SP, Ding L, Zemke R, Azen SP, Labree L, Clark F (2000)	To describe methods used to adapt a health care program so that it would better meet the needs of a group of elder Mandarin-speaking Chinese residents.	◆ Program was found to be effective in reducing health-related declines among the target population.	Qualitative research Study Participants: Elder Mandarin-speaking Chinese residents
McPhee SJ, Bird JA, Davis T, Ha NT, Jenkins CN, Le B (1997)	To determine the barriers to breast and cervical cancer screening among Vietnamese women in San Francisco and Sacramento, California.	◆ In both communities only about one half of Vietnamese women had ever had routine check-ups, clinical breast examinations, mammograms and pap smear tests. ◆ Only about one third were up-to-date for these screening examinations. ◆ Among women 40+, 35% had never contemplated a mammogram. ◆ Negative predictors of test recognition included low levels of education and not having a regular physician. ◆ Negative predictors of test receipt included low levels of education, not having a regular physician, short duration of U.S. residency, and never having been married.	Survey Study Participants: Vietnamese women
Miano LY, Rojas MS, Trujillo M (1996)	To describe the impact of a health promotion program entitled Platicas Y Merienda which was designed to meet the needs of the Hispanic population.	◆ The program is coordinated and facilitated by Spanish-speaking social workers and uses other professionals to promote a multidisciplinary approach to providing support services for Spanish-speaking cancer patients.	Descriptive Target Population: Spanish-speaking cancer patients
Michielutte R, Sharp PC, Dignan MB, Blinson K (1994)	To examine the concept of cultural sensitivity in the context of developing cancer control programs for American Indian populations.	◆ Explores the differences in beliefs, behaviors and values between American Indian and majority cultures. ◆ Examples of culturally sensitive health education programs are presented and highlights from the North Carolina Native American Cervical Cancer Prevention Project.	Descriptive Target Population: American Indians

Descriptive

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Nevid JS, Javier RA, Moulton JL (1996)	To examine the factors predicting participant attrition in a community-based, culturally specific smoking-cessation program.	Program non-completers: ◆ Had lower incomes. ◆ Expressed greater initial confidence in their ability to stop smoking (statistically significant). ◆ Perceived themselves to be in poor general health, particularly in relation to peers, when compared to program completers (statistically significant). ◆ Were more likely to report cardiovascular problems (statistically significant).	Study Participants: Hispanic smokers
Shapiro J, Simonsen D (1994)	To describe educational support for Latino families of children with Down Syndrome.	◆ Describes the experiences and observations based on an ongoing parent education-support group for Mexican-origin Latino parents of children with Down Syndrome.	Descriptive
Soto Mas FG, Kane WM, Going S, Ford ES, Marshall JR, Staten LK, Smith JE (2000)	To describe Camine con Nosotros, a program that promotes physical activity among Hispanic women.	◆ Describes a theory-based physical activity program for Hispanic women, and explains the process of selecting the theoretical framework for the program and connecting theory and practice.	Descriptive
Stillman FA, Bone LR, Rand C, Levine DM, Becker DM (1993)	To provide a descriptive overview of the implementation process of the Heart, Body and Soul program. The program objective was to test strategies to reduce the prevalence of cigarette smoking among urban African Americans in East Baltimore.	◆ Pastors of all churches were directly involved in all aspects of the planning and implementation process. ◆ Lay smoking–cessation specialists were trained and successfully implemented the intensive interventions in churches.	Descriptive Target Population: Urban African Americans in East Baltimore

Satisfaction

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Griffin JA, Gilliland SS, Perez G, Helitzer D, Carter JS (1999)	To describe participant satisfaction with the Native American Diabetes Project.	◆ Results showed that participant satisfaction did not vary based on session delivery type or by session site. ◆ Overall, participants responded positively to sessions designed according to Social Action Theory and with cultural competency. ◆ Retention rates were 81% for group sessions and 91% for individual sessions.	Survey Study Participants: 8 Pueblo communities
Mattson S, Lew L (1992)	To evaluate the success of the Southeast Asian Health Project in terms of client satisfaction with prenatal care and other services.	◆ The majority of women were satisfied with the program, particularly the interpretation and education in native languages. ◆ Women also encouraged others to seek care from the program.	Survey Study Participants: Southeast Asian women
Rubin DB (1999)	To examine parent satisfaction with case management mental health services (CMS) and parent's perceptions of the cultural competence of their children's case managers.	◆ Mothers of children who were employed were significantly more satisfied with CMS than those who were not employed. Other demographics were not significant. ◆ Parents receiving intensive CMS were more satisfied than those receiving traditional case management when controlling for demographic variables and functional status of the child and family. ◆ Cultural competency scores were significantly related to overall satisfaction scores and intervened in the relationship between type of case management and parent satisfaction. ◆ Racial match of the parent and case manager was significantly related to cultural competency but not satisfaction scores.	Survey Study Participants: Parents of children with extensive mental health needs

Knowledge

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Alcalay R, Alvarado M, Balcazar H, Newman E, Huerta E (1999)	To describe a Latino cardiovascular disease prevention and outreach model.	◆ Results showed that the participants were substantially more aware of risk factors for cardiovascular disease and had increased their knowledge of ways to prevent heart disease.	Pre-/post-test Study Participants: Program participants
Dignan MB, Michielutte R, Wells HB, Sharp P, Blinson K, Case LD, Bell R, Konen J, Davis S, McQuellon RP (1998)	To determine the impact of a National Cancer Institute-funded health education program conducted among the Lumbee tribe in North Carolina, designed to increase the proportion of women, age 18 and older, who receive Pap smear screening.	Compared to the control group, women who received the education program: ◆ Were more likely to have knowledge of the Pap smear test. ◆ To report a pap smear test in the past year at the post-test. ◆ Women most likely to respond to the education program were also likely to have reported that they receive an annual physical exam. ◆ Women with better knowledge of the Pap smear test tended to have more education, higher income and greater identification with Native American culture than those with less knowledge.	Pre-/post-test Study Participants: Women in Lumbee tribe
Duffy SA, Bonino K, Gallup L, Pontseele R (1994)	To determine the educational needs of Native American women whose infants were at risk for infant mortality and assess the use of a culturally-based intervention to meets these needs (community baby shower).	◆ At the conclusion of the community baby shower, all participants were able to demonstrate the use of the health information taught by nursing students. ◆ The intervention also demonstrated an increase in mothers' self confidence and provided them with culturally sensitive care.	Solomon Four Group research design Study Participants: Native American mothers

Knowledge

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Ferguson SL (1996)	To determine the effects of peer counseling in a culturally-specific pregnancy prevention program for African American females.	Results in both groups: ◆ None became pregnant within 3 months of implementing the study. ◆ No delay in sexual intercourse for the sexually-experience participants. ◆ No statistically significant difference was reported in the use of effective methods of contraception by the sexually-experienced participants. Experimental group: ◆ The majority of sexually-experienced participants in this group reported having no sexual intercourse within the last 4 weeks at both pretest and 3-month post-test. ◆ Statistically significant increase in knowledge of reproduction, sexually-transmitted diseases, and contraceptives occurred when comparing pretest and 8-week post-test scores	Pre-/post-test with comparison group Study Participants: African American women
Flaskerud JH, Akutsu PD (1993)	To examine the possible influence of treatment in Asian programs on the clinical diagnoses of Asian outpatients.	◆ Asian American clients seen at Asian clinics by Asian therapists were diagnosed with significantly lower percentages of psychotic disorders and other major psychiatric disorders and significantly higher percentages of nonpsychiatric disorders than were Asian clients who were seen by Asian and white therapists at mainstream clinics.	Analysis of program data Study Participants: Asian American mental health patients

Knowledge

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Flaskerud JH, Nyamathi AM (1990)	To test the effects of an AIDS education program on the knowledge, attitudes and practices of low-income black and Latino women.	◆ The experimental group made significant gains over the control group on pre-/test-posttest measures of knowledge and attitudes. ◆ Both control and experimental groups made significant changes in practice. ◆ Changes in knowledge were retained on retest. ◆ Blacks and Latinas differed on pretest knowledge and attitudes but not practices. ◆ Blacks had more knowledge and positive attitudes on pre-/test, however, post-/test improvement scores were greater in Latinas than in blacks.	Pre-/post-test with comparison group Study Participants: African American adolescent females
Flaskerud JH, Nyamathi AM, Uman GC (1997)	To assess the effects of an HIV antibody testing, counseling and education program on the knowledge and practices of low-income Los Angeles Latina women	◆ Experimental group made significant improvements in HIV knowledge and reported condom use practices from pre-test to post-test that were retained on retest. ◆ Comparison group did not make significant pre-test-post-test improvements on these measures.	Experimental design with pre- and post-test and retest at one year
Litrownik AJ, Elder JP, Campbell NR, Ayala GX, Slymen DJ, Parra-Medina D, Zavala FB, Lovato CY (2000)	To determine the effectiveness of a culturally sensitive program aimed at preventing tobacco and alcohol among adolescents by improving parent-child communication skills.	◆ The program was found to be effective in increasing perceived parent-child communication in families with fewer children.	Randomized controlled trial with pre-/post test Study Participants: Hispanic migrant families
Marin G, Marin BV, Perez-Stable EJ, Sabogal F, Otero-Sabogal R (1990)	To determine the effect of a 7 month, media-based community intervention among Hispanics designed to change levels of information on the damaging effects of cigarette smoking and on the availability of culturally appropriate cessation services.	◆ Results demonstrated that changes in the level of awareness of cessation services had occurred after implementation of the intervention. ◆ Changes took place primarily among the less acculturated Spanish-speaking Hispanics who were the target of the intervention.	Pre-/post-test Study Participants: Low income Black and Latina women

Knowledge

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Marin G, Perez-Stable EJ (1995)	To evaluate the effectiveness of the Programa Latino Para Dejar de Fumar (PLDF) in disseminating smoking-cessation information in San Francisco's Latino community.	Outcomes significantly associated with year of survey: ◆ Awareness of Hispanic smoking cessation program. ◆ Awareness of PLDF specifically. ◆ Awareness of available printed information to help smokers quit and having a copy of Guia Para Dejar de Fumar. ◆ Same variable associated with a lower acculturation score. Women were more likely than men to report: ◆ Awareness of Hispanic smoking-cessation program. ◆ Awareness of PLDF. ◆ Awareness of available printed information. ◆ Cigarette-smoking prevalence decreased from 1986 through 1990, stabilized in 1991 and appeared to increase among less acculturated respondents.	Survey Study Participants: Hispanic community members
Stevenson HC, Gay KM, Josar L (1995)	To investigate the impact of a culturally-relevant HIV/AIDS video education on African American youth.	Teenagers were randomly assigned to view a culturally sensitive (CSV) or culturally dissimilar video education intervention. ◆ Both interventions were effective in increasing AIDS knowledge scores. ◆ An interaction effect was found between levels of perceived AIDS risk knowledge and participation in the CSV. ◆ Only the CSV intervention was effective with adolescent who claimed to "know a lot" about AIDS. ◆ Students in both groups who were worried about getting AIDS demonstrated higher AIDS risk knowledge at post-assessment.	Randomized controlled trial Study Participants: Hispanic teenagers

Behavior

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Barnhart JM, Mossavar-Rahmani Y, Nelson M, Raiford Y, Wylie-Rosett J (1998)	To determine the impact of a culturally-sensitive dietary intervention to increase fruit and vegetable intake among African American women.	◆ Fruit and average daily vegetable intake increased from 0.89 to 1.2 and from 0.81 to 1.1 servings, respectively. ◆ Evaluation indicated that cookbooks, food co-ops, and workshops were preferred methods for learning about increasing fruit and vegetable intake.	Pre-/post-test Study Participants: African American women
Davis SM, Lambert LC, Gomez Y, Skipper B (1995)	To determine the impact of a multidisciplinary school-based program to promote cardiovascular health behavior change in fifth grade Navajo and Pueblo students.	Participating schools were randomly assigned to curriculum or control conditions. When compared to the control group, students in the curriculum group: ◆ Showed significant increases in knowledge. ◆ Reported a decrease in the frequency of salt and butter use. ◆ Of the students who had tried smoking at baseline, boys and Pueblo students, reported using less smokeless tobacco at the post-test. ◆ 70% reported increasing the amount they exercised since baseline.	Randomized control trial Study Participants: Fifth grade Navajo and Pueblo students
Erwin DO, Spatz TS, Stotts RC, Hollenberg JA (1999)	To examine the effectiveness of the Witness Project, a culturally competent cancer education program that trains cancer survivors to promote early detection and increased breast self-examination and mammography in a population of rural, underserved, African American women.	◆ Witness Project participants significantly increased their practice of breast self-examination and mammography compared with women in the control group.	Pre-/post- test with comparison group Study Participants: Rural, underserved, African American women
Erwin DO, Spatz TS, Stotts RC, Hollenberg JA, Deloney LA (1996)	To examine the effectiveness of the Witness Project, a culturally competent cancer education program that trains cancer survivors to promote early detection and increased breast self-examination and mammography in a population of rural, underserved, African American women.	◆ Witness Project participants significantly increased their practice of breast self-examination and mammography. ◆ There was no significant difference between the pre- and postintervention scores for scaled items for the health-belief model and locus of control.	Pre-/post-test Study Participants: Rural, underserved, African American women

Behavior

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Ferguson SL (1996)	To determine the effects of peer counseling in a culturally-specific pregnancy prevention program for African American females.	Results in both groups: ◆ None became pregnant within 3 months of implementing the study. ◆ No delay in sexual intercourse for the sexually-experience participants. ◆ No statistically significant difference was reported in the use of effective methods of contraception by the sexually-experienced participants. Experimental group: ◆ The majority of sexually-experienced participants in this group reported having no sexual intercourse within the last 4 weeks at both pretest and 3-month post-test. ◆ Statistically significant increase in knowledge of reproduction, sexually-transmitted diseases, and contraceptives occurred when comparing pretest and 8-week post-test scores.	Post-test with comparison group Study Participants: African American adolescent females
Sung JF, Blumenthal DS, Coates RJ, Williams JE, Alema-Mensah E, Liff JM (1997)	To determine if an in-home educational intervention conducted by lay health workers could increase adherence among low-income, inner-city, African American women to breast and cervical cancer screening.	◆ Increase in Pap smear screening was similar for both groups. ◆ For clinical breast exams, there was a modest increase in the intervention group. ◆ For mammography screening, there was a 10-12% increase. ◆ Among women who were not on recommended schedules at baseline, the improvement was substantial and greater in the intervention group.	Pre-/post-test with comparison group Study Participants: Low-income, inner-city, African Americans
Wright AL, Naylor A, Wester R, Bauer M, Sutcliffe E (1997)	To describe a culturally appropriate breastfeeding promotion program conducted on a Navajo reservation.	◆ Components of the program include: an intervention in the health care system, a community intervention, and an individual intervention. ◆ Based on medical records review of feeding practices of all the infants born the year before and after intervention, the program was determined to be extremely successful.	Pre-/post-review of medical records Study Participants: Navajo Indian women

Utilization of Preventive Services

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Bell TS, Branston LK, Newcombe RG, Barton GR (1999)	To determine the effectiveness of interventions (i.e., translated literature, general practitioner letter of endorsement, interpreter services and free transportation) aimed at improving uptake of breast screening among ethnic minorities.	◆ 50.7% of the invited women attended screening, a statistically significant increase of 15.5%. ◆ The provision of free transportation was ineffective and under utilized. ◆ Uptake was highest among Urdu- and Gujarati-speaking groups and lowest for Bengali and Somali speakers.	Pre-/post-intervention comparison of screening rates Study Participants: Ethnic minorities: Urdu, Gujarati, Bengali and Somali speakers
Bird JA, McPhee SJ, Ha NT, Le B, Davis T, Jenkins CN (1998)	To determine the impact of a community outreach intervention to promote recognition, receipt and screening interval maintenance of clinical breast examinations (CBE), mammograms, and Pap smears among Vietnamese American women.	Trained Vietnamese lay health workers significantly increased Vietnamese women's recognition, receipt, and maintenance of breast cancer and cervical cancer. Recognition of screening: ◆ CBE increased from 50 to 85%. ◆ Mammography increased from 59 to 79%. ◆ Pap smear increased from 22 to 78% Receipt of screening: ◆ CBE screening increased from 44 to 70%. ◆ Mammography screening increased from 54 to 69%. ◆ Pap smear screening increased from 46 to 66%.	Pre-/post-test survey design Study Participants: Vietnamese American women
Dignan MB, Michielutte R, Well HB, Sharp P, Blinson K, Case LD, Bell R, Konen J, Davis S, McQuellon RP (1998)	To determine the impact of a National Cancer Institute-funded health education program conducted among the Lumbee tribe in North Carolina, designed to increase the proportion of women, age 18 and older, who receive Pap smear screening.	Compared to the control group, women who received the education program were more likely: ◆ To have knowledge of the Pap smear test. ◆ To report a pap smear test in the past year at the post-test. ◆ Women most likely to respond to the education program were also likely to have reported that they receive an annual physical exam. ◆ Women with better knowledge of the Pap smear test tended to have more education, higher income and greater identification with Native American culture than those with less knowledge.	Solomon Four Group research design Study Participants: Lumbee tribe women

Utilization of Preventive Services

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Erwin DO, Spatz TS, Stotts RC, Hollenberg JA (1999)	To examine the effectiveness of the Witness Project, a culturally competent cancer education program that trains cancer survivors to promote early detection and increased breast self-examination and mammography in a population of rural, underserved, African American women.	◆ Witness Project participants significantly increased their practice of breast self-examination and mammography compared with women in the control group.	Pre-/post-test with comparison group Study Participants: Rural, underserved, African American women
Erwin DO, Spatz TS, Stotts RC, Hollenberg JA, Deloney LA (1996)	To examine the effectiveness of the Witness Project, a culturally competent cancer education program that trains cancer survivors to promote early detection and increased breast self-examination and mammography in a population of rural, underserved, African American women.	◆ Witness Project participants significantly increased their practice of breast self-examination and mammography. ◆ There was no significant difference between the pre- and post-/intervention scores for scaled items for the health-belief model and locus of control.	Pre-/post-test Study Participants: Rural, underserved, African American women
McAvoy BR, Raza R (1991)	To determine the effects of three different methods of providing health education (i.e., leaflets, health education video, cervical cancer screening) on the uptake of cervical smear testing among Asian women.	◆ Interventions, except mailed written translated materials, increased the uptake of cervical cytology. ◆ Personal visits were most effective irrespective of the health education materials used. ◆ Home viewed videos may be particularly effective in one of the most hard to reach groups: Urdu-speaking, Pakistani Moslems.	Randomly controlled trial Study Participants: Asian women aged 18-52 who had never been tested
Sung JF, Blumenthal DS, Coates RJ, Williams JE, Alema-Mensah E, Liff JM (1997)	To determine if an in-home educational intervention conducted by lay health workers could increase adherence among low-income, inner-city, African American women to breast and cervical cancer screening.	◆ Increase in Pap smear screening was similar for both groups. ◆ For clinical breast exams, there was a modest increase in the intervention group. ◆ For mammography screening, there was a 10-12% increase. ◆ Among women who were not on recommended schedules at baseline, the improvement was substantial and greater in the intervention group.	Pre-/post-test with comparison group Study Participants: Low-income, inner-city, African Americans
Yancey AK, Tanjasiri SP, Klein M, Tunder J (1995)	To determine the impact of exposure to culturally sensitive health education videos on cervical cancer screening behavior.	◆ The proportion of women seen as patients during the intervention weeks who subsequently obtained Pap smears was significantly higher than that of those seen during the control weeks at 2 separate sites.	Quasi-experimental Study Participants: Predominantly low income African American and Latina women

Health Status

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Barnes-Boyd C, Norr KF, Nacion KW (1996)	To describe an interagency home visiting program designed to reduce preventable causes of morbidity among normal socioeconomically disadvantaged infants at risk for adverse outcomes due to social factors.	◆ Results demonstrate that repeated home visits with ongoing infant health monitoring plus individualized and culturally sensitive teaching helped mothers maintain good health practices and identify illnesses early. ◆ Infants' outcomes during the neonatal period and at 12 months showed consistent, (statistically nonsignificant) positive effects on physical health. ◆ The postneonatal mortality rate among program infants was 4.7/1000. Rates for nonparticipants ranged from 5.2 to 10.9/1000.	Descriptive program evaluation Study Participants: African American mothers and their infants
Brown SA, Hanis CL (1999)	To describe the development process of a culturally competent diabetes education program for Mexican Americans.	◆ Preliminary assessment indicated that the intervention was successful in significantly improving metabolic control in the target population.	Randomized controlled trial Study Participants: Mexican Americans
Cooper LA (2001)	To examine whether a patient-centered, culturally-tailored education and activation intervention with active follow-up by a depression case manager affects remission rates, depressive symptoms, functional status, treatment adherence, satisfaction with care, and attitude toward depression of African Americans with major depressive disorder.	◆ This project is in progress.	Randomized controlled trial Study Participants: African Americans with major depressive disorder
Jackson J, Kennedy BL, Mandel D, Carson M, Cherry BJ, Fanchiang SP, Ding L, Zemke R, Azen SP, Labree L, Clark F (2000)	To describe methods used to adapt a health care program so that it would better meet the needs of a group of elder Mandarin-speaking Chinese residents.	◆ Program was found to be effective in reducing health-related declines among the target population.	Randomized controlled pilot Study Participants: Elder Mandarin-speaking Chinese residents.

Health Status

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Nevid JS, Javier RA (1997)	To compare a culturally specific, multicomponent behavioral smoking cessation program for Hispanic smokers with a low-intensity, enhanced self-help control condition.	◆ Cotinine-validated abstinence rates at posttreatment were 21% for the multicomponent group and 6% for the self-help group. ◆ At the 6-month follow-up, the rates were 13% for the multicomponent group and 9% for the self-help group. ◆ At the 12-month follow-up the rates declined to 8% and 7% for the groups respectively.	Randomized controlled trial Study Participants: Hispanic smokers
Shintani T, Beckham S, O'Conner HK, Hughes C, Sato A (1994)	To describe the Waianae Diet Program, a 3-week community-based program of traditional Hawaiian diet and cultural teachings.	◆ Demonstrated significant weight loss with no calorie restriction, improvement in blood pressure, serum glucose and serum lipids.	Pre-/post-intervention measures Study Participants: Native Hawaiians
Wang CY, Abbott LJ (1998)	To determine the impact of a diabetes and hypertension preventive program in a Chinese community.	◆ 80% of participants had decreased their diastolic blood pressure from above 95 mmHg to below 90 mmHg and systolic pressure from above 155 mmHg to below 140 mmHg. ◆ 95% of participants had maintained their glucose level within the 90 mg/dL to 150 mg/dL range with a mean reduction of 57.86 mg/dL in one year. ◆ Glucose self-monitoring was found to be difficult for families.	Survey Study Participants: Chinese community members with either Type 2 diabetes, hypertension or both

Family/Community Inclusion in Health Care Delivery

The underlying premise supporting inclusion is that family entities and community networks can act as agents to achieve improved social, behavioral and health outcomes in individuals more effectively than systems.

Family/Community Inclusion Related to Clinical Encounters

All studies used qualitative methods to inform family/community inclusion practices, but none evaluated the impact of family/community inclusion. Armenta (1993) conducted a descriptive study and found that educating community-based stakeholders, holding bilingual programs with flexible hours and attendance incentives and supports could increase Latino parents' participation in a parent training program. Shapiro (1999) analyzed videotaped clinical encounters to describe some of the essential components of a family orientation in the medical interview (e.g., more time, language concordance, clarification, and the provider's patient-centered style). Spiece and colleagues (2000) analyzed the content of focus groups with patients and providers to isolate issues of family-patient-doctor communication related to cancer, and the challenges related to family inclusion in the clinical encounter. Suarez and colleagues (2000) examined the relationship between social networks and cancer screening practices among different Hispanic groups.

Community Involvement in Program Planning Design, Implementation, Training and Research

Several studies on community involvement focused on collaborations between local groups and the medical establishment and researchers. One study described the collaboration of community elders with medical residents (Anonymous, 2000). Banner and colleagues (1995) described the collaborative development with the Korean-American community of a survey instrument. The authors concluded that this participation helped assure that the survey was accessible and culturally acceptable to participants in the community, although this acceptability appears to be presumed and not formally measured. Similarly, Amundson and Trotter (1991) attributed a high response rate on an evaluation survey to the community participation throughout a project to develop a network of mental health workers for Pacific Islands. Chen (1997) also described a process to develop a cooperative community intervention to improve cancer screening among Korean women. The study documented several different mechanisms of inclusion (advisory board, staff recruited from the community, and using participatory research methods). Inclusion of the community resulted in high survey response rates and access to information about the community that might not otherwise have been available.

Research Considerations

There are several questions that could be studied related to the merits of better integration of family members in the health-care encounter, treatment negotiation, and facilitation of adherence to treatment plans.

- How can providers determine at the beginning of an encounter to what extent family members present or not present should be involved in discussing diagnosis and treatment options?
- Is there a difference between allowing the passive listening of family members in the encounter and directly involving them by soliciting their insights and commitment to assist?
- What styles of provider-patient-family interaction can be developed and taught to providers that easily involve all parties without overly lengthening the encounter period?
- What kinds of instructions can be given to family members and patients by providers that would facilitate patient adherence to treatment plans?
- Control groups are needed to isolate the effect of inclusion vs. many other dynamics taking place in medical encounters.

Inclusion Related to Clinical Encounters

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Armenta F (1993)	To explore the factors that influence Latino parents' participation in parent training programs.	◆ Acculturation and social class had uneven effects on various factors. ◆ Stress did not impact program influence. ◆ Very low levels of awareness of parent training programs among Latino parents. Factors that would positively influence parent participation: ◆ Educating key community-based stakeholders. ◆ Bilingual programs with flexible hours and attendance incentives and supports (e.g., childcare, transportation). ◆ Demonstrating family-benefits as part of program promotion efforts. ◆ Achieving non-participating spouse buy-in. ◆ Demonstrated professional competence of instructors.	Descriptive Study Participants: Mexican and Mexican American mothers of children ages 5-9
Shapiro J (1999)	To investigate both frequency and correlates of family orientation in a residency-based practice.	Most common types of resident actions: ◆ Asking for medical information. ◆ Clarifying patient information. ◆ Giving medical information and explanations. Family orientation was associated with: ◆ Longer interviews. ◆ Non-interpreted interviews. ◆ More physician questions. ◆ Clarifying behaviors. ◆ Greater tendency to elicit patient's agenda.	Analysis of videotaped sessions Study Participants: Third year medical residents and a wide range of multiethnic patients

Inclusion Related to Clinical Encounters

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Speice J, Harkness J, Laneri H, Frankel R, Roter D, Kornblith AB, Ahles T, Winer E, Fleishman S, Luber P, Zevon M, McQuellon R, Trief P, Finkel J, Spira J, Greenberg D, Rowland J, Holland JC (2000)	To determine important issues related to doctor-patient communication for cancer patients, and the strengths and difficulties associated with family involvement. To examine the relationship between social networks (social relationships) and cancer screening among Hispanic groups.	◆ Comments support the need for explicit conversations between providers, patients, and family in order to negotiate needs.	Focus groups Study Participants: Cancer patients and medical providers
Suarez L, Ramirez AG, Villarreal R, Marti J, McAlister A, Talavera GA, Trapido E, Perez-Stable EJ (2000)	To examine the relationship between social networks (social relationships) and cancer screening among Hispanic groups.	Independent of socioeconomic factors, social integration appears to influence cancer screening participation of Hispanic women. The effect, however, is not universal across different groups. For Pap smear screening: ◆ Social integration had the strongest effect among Mexican-American women. ◆ Some effect on Cuban and Central American women. ◆ Had no effect on Puerto Rican women. ◆ Social integration had no effect on mammography screening among Puerto Rican women.	Survey Study Participants: Mexican, Cuban, Central American and Puerto Rican women

Community Involvement in Program Planning Design, Implementation Training and Research

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Amundson MJ, Trotter CM (1991)	To describe the community participation in a project to develop a network of mental health workers for Pacific Islands.	◆ Participants were involved in trainee selection, curriculum development and modification and negotiation of clinical practicum and evaluation. ◆ High success rate of returns resulted from the evaluators' careful sensitivity to the culture and the adaptation of the Western research process.	

Community Involvement in Program Planning Design, Implementation Training and Research

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Anonymous (2000)	To introduce the concept of a "Council of Elders" as an educational innovation in which invited community elders function as "Senior Faculty" to whom medical residents present their challenges and dilemmas in caring for elder patients.	◆ The role of the Council and its members is to function as teachers and as collaborators in a process in which doctors, researchers and elders together create a community of resources, capable of identifying novel ways to overcome health-related difficulties which might not have been apparent to either group separately. ◆ Meetings have been integrated into the primary care residency program.	Descriptive Target Population: Community elders
Banner RO, DeCambra H, Enos R, Gotay C, Hammond OW, Hedlung N, Issell BF, Matsunaga DS, Tsark JA (1995)	To describe the process of community participation in the development of a baseline survey of Native Hawaiian women.	The involvement of community representatives working collaboratively with researchers, in baseline survey planning helped assure the survey was acceptable to the participants and the community as a whole.	Descriptive Target Population: Native Hawaiian women
Chen AM, Wismer BA, Lew R, Kang SH, Min K, Moskowitz JM, Tager IB (1997)	To describe a preliminary report from a research collaboration involving Korean Americans, community-based organizations, and the University of California. The intent of the project is to support a collaborative community intervention to improve breast and cervical cancer screening behavior among Korean women.	The collaborative process yielded: ◆ A high survey response rate (79%). ◆ Baseline health information on Korean Americans. ◆ Broadening of the original research topic. ◆ Survey responses that will guide intervention design. ◆ Culturally competent strategies. ◆ Expanded Korean American community capacity for local action.	Descriptive Target Population: Korean Americans

Coordination of Conventional Medicine and Traditional Practices/Healers

In many multicultural communities, illness and disease are often perceived to arise from a variety of causes, and may require the services of a traditional healer. Different terms to describe these healers are cited in the literature including, curandero, native healer, medicine man, shaman, spiritualist, herbal doctor, herbalist, etc. The practices of traditional healers are often categorized as alternative medicine. There is a plethora of published literature describing different alternative medicine practices. However, little scientific evidence exists that measures the impact of integration of traditional and conventional practices on health outcomes.

Several common themes were found among studies describing traditional practices in the context of health care: utilization of alternative practices, integration into conventional systems of care, impact on service utilization, and conflict with conventional methods.

Utilization of Traditional Practices and Healers

Several studies documented that there is substantial use of herbal or folk remedies and some use of traditional healers, and these are often used in conjunction with conventional medicine but relatively few patients inform their conventional medical practitioners (Bhopal, 1986; Elder, Gillcrist, and Minz, 1997; Kim and Kwok, 1998; Ma, 1999; Marbella et al., 1998; Skaer et al., 1996; Tabora and Flaskerud, 1997).

Conflict between Traditional and Conventional Medicine

Studies showed that conventional medical practitioners have generally accepted the use of traditional medicine and healers, but not universally or without restriction. Bhopal (1986) reported that at least half of the physicians surveyed felt that alternative practices should be encouraged unless shown to be harmful. Zubek (1994) reported that while family physicians accepted use of traditional treatments for benign illnesses or palliative care, many disagreed with their use for serious illnesses. Furthermore, conventional medical practitioners' limited knowledge of traditional practices and their potential merits or risks (Zubek, 1994) can present an obstacle to supporting or integrating approaches.

Studies of patients' perspectives of the compatibility of traditional and conventional medicine produced contradictory results. Marbella and colleagues (1998) found that more than a third of the patients seeing healers received different advice from their physicians and healers. In contrast, Kim and Kwok (1998) reported that perceived conflict between native healer advice and medical provider advice was rare.

Integration of Traditional and Conventional Approaches

No studies were located that reported on the impact of programs that integrate traditional and conventional medical care. Four descriptions of such programs (Del Castillo, 1999; Foster, 1996; Kahn and Delk, 1973; Reissland and Burghart, 1989) are testimony that such programs can be implemented.

Research Considerations

Future research needs to examine the service utilization and health outcomes associated with utilization of traditional healers and practices, along with comparisons between conventional and traditional approaches, and measurable outcomes associated with the integration of methodologies.

Utilization

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Bhopal RS (1986)	To examine the role of traditional medicine in the context of health care within the Asian community.	◆ Traditional medicine was used to treat common ailments such as abdominal discomfort, earache and toothache. ◆ Health professionals reported that awareness of Asian medicine was low. ◆ No health professionals had encountered morbidity resulting from utilization of alternative medicine and 50% felt that use should be encouraged.	Survey Study Participants: Asian community members and health professionals
Elder NC, Gillcrist A, Minz R (1997)	To learn about the use of alternative medicine by family practice patients	◆ 50% of patients were using some form of alternative medicine. ◆ 53% told their physician about their use of alternative methods. ◆ No significant differences were attributable to gender, educational level, age, race or clinic site. ◆ Main reason given for use of alternative medicine, alone or in combination with conventional methods, was that patients believed it worked. ◆ Patients who worked with their physician to integrate methodologies spoke of acceptance and control. ◆ Patients who did not inform their physicians spoke of narrow-mindedness.	Survey Study Participants: Family practice patients

Utilization

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Kim C, Kwok YS (1998)	To determine the prevalence of native healer use, the reasons for use, cost of use, and the nature of any conflict with conventional medicine.	◆ 62% of Navajo patients had used native healers, 39% on a regular basis. ◆ Those who used services were not distinguishable from non-users by age, education, income, fluency in English, identification of primary provider or compliance, but Pentecostal patients used native healers less than patients of other faiths. ◆ Native healers were consulted for a variety of medical conditions such as arthritis, depression, diabetes mellitus and bad luck. ◆ Perceived conflict between traditional healers and physicians was rare. ◆ Cost was the main barrier to seeking native healer care.	Survey Study Participants: Navajo patients
Ma GX (1999)	To examine the use of traditional and Western health services by Chinese immigrants, as well as the socioeconomic factors affecting health-seeking behaviors and health service utilization patterns.	◆ High rates of self-treatment and home remedies were used by Chinese immigrants. ◆ Medium rates of utilization of integrated conventional and traditional health services, including travel to country of origin for care. ◆ Low rates of exclusive utilization of either methodologies.	Structured interviews and ethnographic data collection Study Participants: Chinese immigrants and conventional and traditional Chinese health care providers

Utilization

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Marbella AM, Harris MC, Diehr S, Ignace G, (1998)	To gain an understanding of the prevalence, utilization patterns, and practice implications of the use of Native American healers together with the use of physicians.	◆ 38% of patients reported using a healer. ◆ Of those who had not used a healer, 86% indicated they would consider seeing one in the future. ◆ Healer often sought for spiritual reasons. ◆ Most frequently visited healers were herbalists, spiritual healers, and medicine men. ◆ Sweat lodge ceremonies, spiritual healing and herbal remedies were the most common treatments. ◆ More than 1/3 of patients seeing healers received different advice from their physicians and healers. ◆ 61.4% of patients rated their healer's advice higher than their physician's advice. ◆ 14.8% of patients seeing healers tell their physicians about their use.	Semi-structured interviews Study Participants: Indian Health Service patients
Skaer TL, Robison LM, Sclar DA, Harding GH (1996)	To examine the use of folk healers and conventional medicine among foreign born, Mexican-American women attending migrant health clinics in rural, eastern Washington state.	◆ 21.4% had sought care from *curanderos* within past 5 years. Statistically significant predictors of utilization include: ◆ Spanish language preference. ◆ Years resided in U.S. ◆ Having received medicine or medical care from Mexico within the prior 5 years.	Survey Study Participants: Foreign born Mexican American women
Tabora BL, Flaskerud JH (1997)	To describe the mental health beliefs and practices of Chinese American immigrant women.	Barriers to the utilization of Western and traditional Chinese practitioners and treatments include: ◆ The inadequacy of conventional services to meet the needs of the population. ◆ The cultural value placed on the avoidance of shame.	Survey and focus groups Study Participants: Chinese American immigrant women

Conflict with Conventional Medicine

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Bhopal RS (1986)	To examine the role of traditional medicine in the context of health care within the Asian community.	◆ Traditional medicine was used to treat common ailments such as abdominal discomfort, earache and toothache. ◆ Health professionals reported that awareness of Asian medicine was low. ◆ No health professionals had encountered morbidity resulting from utilization of alternative medicine and 50% felt that use should be encouraged.	Survey Study Participants: Asian community members and health professionals
Kim C, Kwok YS (1998)	To determine the prevalence of native healer use, the reasons for use, cost of use, and the nature of any conflict with conventional medicine.	◆ 62% of Navajo patients had used native healers, 39% on a regular basis. ◆ Those who used services were not distinguishable from non-users by age, education, income, fluency in English, identification of primary provider or compliance, but Pentecostal patients used native healers less than patients of other faiths. ◆ Native healers were consulted for a variety of medical conditions such as arthritis, depression, diabetes mellitus and bad luck. ◆ Perceived conflict between traditional healers and physicians was rare. ◆ Cost was the main barrier to seeking native healer care.	Cross-sectional interview Study Participants: Navajo patients

Conflict with Conventional Medicine

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Marbella AM, Harris MC, Diehr S, Ignace G, (1998)	To gain an understanding of the prevalence, utilization patterns, and practice implications of the use of Native American healers together with the use of physicians.	◆ 38% of patients reported using a healer. ◆ Of those who had not used a healer, 86% indicated they would consider seeing one in the future. ◆ Healer often sought for spiritual reasons. ◆ Most frequently visited healers were herbalists, spiritual healers, and medicine men. ◆ Sweat lodge ceremonies, spiritual healing and herbal remedies were the most common treatments. ◆ More than 1/3 of patients seeing healers received different advice from their physicians and healers. ◆ 61.4% of patients rated their healer's advice higher than their physician's advice. ◆ 14.8% of patients seeing healers tell their physicians about their use.	Semi-structured interviews Study Participants: Indian Health Service patients
Zubek EM (1994	To ascertain the extent to which family physicians in British Columbia agree with patients' use of traditional medicine.	◆ Respondents generally accepted the use of traditional Native medicines for health maintenance, palliative care, and the treatment of benign illness. ◆ More disagreement was found with its use for serious illnesses. ◆ Many physicians had difficulty forming a definition of traditional Native medicine. ◆ Many were unable to form an opinion on its health risks or benefits.	Cross-sectional survey Study Participants: Family medicine practitioners

Integration into Conventional Systems of Care

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Del Castillo RR (1999)	To describe the incorporation of curanderismo into a public mental health system.	Management strategies that were effectively implemented and resulted in the institutionalization of curanderismo into the mental health system, both as a treatment modality and as an educational strategy include: ◆ Building of a solid infrastructure to support alternative mental health programming. ◆ Demonstration of effective leadership. ◆ Strong minority voice. ◆ Introduction of intermediaries.	Descriptive Target Population: Hispanic mental health patients
Foster PM (1996)	To describe an African-centered model of psychotherapeutic intervention based on traditional African healing.	The model: ◆ Draws heavily from healing rituals and practices emanating from three African cultural and religious traditions. ◆ Integrates the use of culturally competent techniques drawn from Western models of psychotherapy.	Descriptive Target Population: African mental health patients
Kahn MW, Delk JL (1973)	To describe the establishment of a mental health facility serving the Papago Indian Tribe in Arizona.	The success of the program was based on several components: ◆ Communication with other service agencies. ◆ Papago Indians were employed as staff members and given the opportunity for professional development. ◆ Papago medicine men were used as paid staff consultants on cases involving traditional beliefs. ◆ Tribal approval and support viewed as essential. Mothers are delivered according to modern, clinical as well as local cultural practices.	Descriptive Target Population: Papago Indian mental health patients
Reissland N, Burghart R (1989)	To describe the integration of modern and traditional obstetric practices in a provincial hospital in the area of southern Nepal.	Mothers are delivered according to modern, clinical as well as local cultural practices.	Descriptive Target Population: Maithili-speaking obstetrical patients

III. CATEGORY B: LANGUAGE ASSISTANCE

Language Barriers, Bilingual Services and Oral Interpretation, and Translated Written Materials

A large literature documents the negative impact of language barriers and positive effects of interpreter services on patient comprehension, satisfaction, service utilization.

Descriptive

Several studies described gathering data to plan for interpreter services programs (Hornberger, Itakura, and Wilson, 1997; Leman, 1997; Meyers, 1992; Roger, Code, and Sheard, 2000), described the programs themselves (Eytan, Bischoff, and Loutan, 1999), or described the status of interpreter services generally (James, 1998; Woloshin et al., 1995).

Patient Comprehension

Spanish-speaking patients tended to have poorer comprehension than English speakers. Crane (1997) found that Spanish-speaking patients had poorer understanding of diagnoses and prescribed medication than English-speaking ones. David and Rhee (1998) found that Spanish speakers reported that side effects of medication were not explained, which was correlated with lower adherence rates.

Baker and colleagues (1996) demonstrated that not having an interpreter when one was needed has an effect on a patient's perceived understanding of diagnosis and treatment. Those who needed an interpreter and had one provided rated their understanding of treatment and diagnosis slightly lower than those who did not need an interpreter, but much higher than those who needed an interpreter and did not receive one. It is important to note that responses in the Baker study were affected by the fact that few of the interpreters used had any formal training in interpretation.

Cooke and colleagues (2000) described the difficulty of using basic medical terms such as "unconscious" with both English and non-English-speaking populations. They pointed out that ethnicity and primary language have an impact on understanding such terms that may affect clinical diagnosis.

Patient Satisfaction/Perceptions of Care

Of the studies comparing satisfaction between English-speaking patients and non-English speaking patients, language barriers consistently have a negative impact on patient satisfaction with health-care encounters. Carrasquillo and colleagues (1999) noted that non-English-speaking patients who visit the emergency (ED) reported more overall problems with care, communication, and testing. Kirkman-Liff and Mondragon (1991) found that language of interview had a significant impact on satisfaction for Hispanic children, although not for adults. Morales and Cunningham (1999) found that Latino Spanish-speaking patients were significantly more dissatisfied with provider communication than Latino English-speaking and white patients. Hu and Covell (1986) found that patients whose primary language was English were more satisfied with care than Spanish-speaking patients. Baker, Hayes, and Fortier (1998) found that patients who needed and did not receive interpreter services were less satisfied with the patient-provider relationship.
Xuo and Fagan (1999) examined varying levels of satisfaction of medical residents and Spanish-speaking patients with various methods of interpretation, and found that both patients and residents were happiest with professional interpreters; patients were more satisfied than residents using family members and friends,

although both groups agreed that accuracy, accessibility and confidentiality were important characteristics of professional interpreters.

Utilization of Health Services and Costs

Several researchers looked at the impact of language barriers on utilization of services. In general, they found that when language barriers existed, patients received fewer services. Woloshin and colleagues (1997) found that French-speaking women in Canada received fewer preventive health services. Derose and Baker (2000) found that Latinos with fair-to-poor English had fewer physician visits, although the likelihood of having a visit was unrelated to English proficiency. In contrast, Hu and Covell (1986) found that use of health services correlated to a higher degree of English proficiency. Schur and Albers (1996) found that Spanish-speakers were less likely than English-speaking Hispanics to have a usual source of care. Carrasquillo and colleagues (1999) found that non-English speaking patients were significantly less likely to return to the same emergency department (ED), although Enguidanos and Rosen (1997) found language not to have an effect on keeping ED follow-up appointments.

Researchers have also studied the impact of interpreter use on utilization of services, with reviews of the literature suggesting that interpreters increase access (Dias and O'Neill, 1998). In two studies led by Jacobs (Jacobs, Lauderdale, and Meltzer, 2001; Jacobs et al., 2001), and in Lee and Pope's study (2001), researchers found that the introduction of interpreters led to greater usage of preventive and primary care services. Bernstein and colleagues (2000) found that patients without interpreters who needed one received fewer services than those with an interpreter or those who did not need one. Lee and Rosenberg (1998) found that the risk of admission from the ED was greater for those without interpreters and decreased for those who had one. Sarver and Baker (2000) found patients with language barriers were less likely to receive follow-up appointments from the ED than English speakers, regardless of whether or not an interpreter was present.

Tocher and Larson (1999), Kravitz and colleagues (2000), Drennan (1996), and Hampers and associates (Hampers and McNulty, 2002; Hampers and colleagues 1999) looked at the impact of interpreter use on clinical processes, which has implications on cost. Tocher and Larson (1999) found that having an interpreter did not increase the length of the visit, while Kravitz and colleagues found the exact opposite. Drennan calculated the opportunity costs of using nursing and cleaning staff as interpreters, and found the financial costs small but the impact on working conditions and patient care considerable. Drennan also found that interviews involving a professional interpreter were longer than those utilizing ad hoc interpreters.

Two studies by Hampers found that more diagnostic tests were used on patients with language barriers who did not have an interpreter than English-speaking patients, resulting in higher charges. When interpreter services were provided to patients with language barriers, they were no more likely to under diagnostic tests, resulting in a 15 percent reduction in mean costs for diagnostic testing. However, these patients had longer stays in the ED than English-speaking patients. In contrast, Bernstein and colleagues (2000) found that patients who do not receive interpreter services received fewer tests and had shorter ED stays than patients who received interpreter services or spoke English.

Health Outcomes

One study examined the effect of providing professional interpreters to non-English-speaking patients with Type 2 diabetes. Although the literature would predict worse outcomes for non-English-speaking patients as compared to English-speaking patients, Tocher and Larson (1998) found that outcomes for non-English-speaking patients , including standardized glycohemoglobin and other laboratory results as well as complication rates, were as good or better as outcomes for English-speaking patients.

Patient-Provider Communication

Rivadeneyra and colleagues (2000) found that Spanish-speaking patients using an interpreter made fewer comments to providers in medical encounters, and the ones that did comment were more likely to be ignored by providers than English-speaking patients.

Erzinger (1991), using ethnographic and conversational analysis methods to investigate the impact of family practice residents with a range of Spanish-language skills, found that conversational style (active listener v. persistent explainer or abrupt interrupter) had as much impact on the communication as did Spanish language proficiency.

Wardin (1996) found that compared to English-speaking patients, providers understood the needs of limited-English-proficiency clients less well, and that better understanding of needs was associated with higher levels of English proficiency.

Quality of Interpretation

Flores and colleagues' study (2003) showed errors in medical interpretation are common, and those committed by ad hoc interpreters are significantly more likely to have potential clinical consequences than those committed by hospital interpreters. Xuo and Fagan's study (1999) comparing the use of professional and family interpreters has implications for quality based on perceived satisfaction, but is limited by the caveats mentioned regarding the relationship between satisfaction and quality. Marcos' analysis (1979) of interpreter-mediated psychiatric interviews suggested that clinically relevant interpreter-related distortions could lead to inaccurate evaluations of a patient's mental status, but noted that pre- and post-interview meetings of clinicians and interpreters can minimize these distortions. Although few studies compared the impact of using different modes of interpretation, Hornberger and colleagues (1996) documented improvements in the number of physician-patient utterances, quality of interpretation and satisfaction when remote-simultaneous interpretation is used compared to proximate (on-site) consecutive interpretation.

Bilingual Providers

Two studies examined the impact of bilingual providers on mental health treatment rates. Manson (1988) found that Spanish-speaking patients who saw Spanish-speaking physicians were less likely to omit medication, less likely to miss office appointment, and were slightly less likely to make an emergency room visit than Spanish-speaking patients who saw English-speaking physicians. Flaskerud and Liu (1991), found that while client-therapist language match significantly increased the number of client sessions with the primary therapist, it did not effect on dropout rate or improve health status. A third study (Hampers and McNulty, 2002) found that emergency department resource utilization for Spanish-speaking patients treated by bilingual physicians was the same as for English-speaking patients. Other Spanish-speaking patients who did not receive interpreter services had higher resource utilization, while other Spanish-speaking patients who did receive interpreter services had comparable resource utilization except they had longer stays in the emergency room.

Second-Language Acquisition by Providers

Both Binder and colleagues (1988) and Mazor and colleagues (2002) found that physicians receiving Spanish language instruction made gains in their ability to communicate with patients. Mazor found that physicians were more likely to obtain key elements of the patient's history without the use of an interpreter in mock scenarios; that they were less likely to use interpreters; and families felt that physicians were concerned about their children, made them feel comfortable, were respectful, and listened to what they said.

Translation

Note: A formal literature search for was not undertaken for this topic.

Jackson and colleagues's study (1997) of Khmer words for liver disease suggest the difficulty and complexity of attempting to render Western medical concepts into other languages and cultural contexts. Twinn (1997) examined the influence of translation on the reliability and validity of qualitative research involving Cantonese-speaking subjects. Analysis of English transcripts produced by two different translators and one Chinese transcript produced no significant differences in major categories generated, but minor differences were identified in the themes.

Research Considerations

Because there is no universal definition of interpreter qualifications at this time, simply applying the term interpreter to anyone who provides interpretation services can be a confounding variable on the impact of other outcomes being studied. Professional interpreters are in the process of developing training and certification standards for medical interpreters. However, their work is experientially and not research based. Significantly more research needs to be done on comparing the quality and effect of using different modes of interpretation, and the effect of different methods and levels of intensity of interpreter training. Work is especially needed on quality with respect to the multidimensional communication process involved in mental health encounters.

To further research in this area, reliable and valid tools for measuring satisfaction for non-English speakers are necessary. Hayes and Baker (1998) found that the Spanish translation of a satisfaction instrument performed more poorly than the English version. In conducting research on the effect of language assistance on satisfaction, questions involving whether patient satisfaction is a valid indicator of quality will emerge. Most non-English speakers, as well as clinicians, are unable to discern whether important medical information is being accurately communicated to or from the provider when nonprofessional interpreters are used. The consequences of inaccuracy in interpretation are more severe than a lower level of satisfaction. The inability of providers and patients to determine the accuracy and adequacy of communication also has implications for evaluating the success of second-language acquisition as a strategy to serve LEP individuals. Research questions that arise from the literature include:

- What is the relationship between satisfaction and the use of trained, professional interpreters vs. untrained staff or family member interpreters?
- Does satisfaction increase when patients are provided with a pre-encounter explanation of the professional interpreter's training, method of interpreting, and ethical standards, and/or when interpreters physically place themselves in the encounter in such a way that providers and patients can look at each other directly during the encounter?
- Do some institutions behave in a more cautious manner when language barriers are present, ordering more tests and admissions to compensate for not being able to communicate adequately?
- Do other institutions behave in a more dismissive manner, assuming that patients will return if the problem gets worse, or won't bother to sue if adequate care is not rendered?
- What length and intensity of training is necessary to produce second-language-speaking clinicians who use that language to establish rapport vs. being able to conduct complicated medical encounters?
- Does translated signage improve patient movement through health care facilities?

- Do translated written pre-op instructions lead to fewer reschedulings for procedures because of inappropriate patient preparation?
- Does translated prescription information/instructions lead to fewer patient medication errors/ better compliance?
- Are verbal (interpreted) instructions more effective than translated written materials for certain patient groups (by age, ethnicity, or education)?
- Do verbatim translated consent forms vs. summarized consent forms lead to different choices about undertaking high risk procedures?
- Do translated health insurance member materials lead to more appropriate patient utilization of services (i.e., fewer emergency room visits for non-urgent conditions)?

Descriptive

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Eytan A, Bischoff A, Loutan L (1999)	To describe the employment of interpreters in psychiatric services in Switzerland	◆ 94% acknowledged difficulties in communicating with patients who did not speak or spoke poorly the local language. ◆ 6.5% never used interpreters, 40% used interpreters rarely, and 50% used interpreters often. ◆ 85% used health care staff and/or patients' relatives or friends as interpreters. ◆ 72% used non-medical staff as interpreters, 49% used outside volunteers, and 59% used trained and paid interpreters.	Survey Study Participants: Psychiatric hospitals and psychiatric services in Switzerland
Hornberger J, Itakura H, Wilson SR (1997)	To determine the kinds of methods employed by physicians to bridge language and cultural barriers with patients, and the physician's perceptions of the availability and quality of these methods.	Physicians reported: ◆ 21% of visits were with non-English speaking patients. ◆ In less than 6% of these encounters trained medical interpreters or the ATT were used. ◆ No interpreters were used 11% of the time. ◆ In 27% of the encounters, the physician could speak the patient's language. ◆ 20% of the interpretation was performed by staff members.	Survey Study Participants: Primary care physicians
James CE (1998)	To explore the challenges for social service agencies currently offering language assistance services to meet the needs of all their limited English proficient clients.	◆ Examines the ethical and problematic issues faced by institutions that provide interpreter services, particularly when limited English proficiency and cultural differences are viewed as systematic problems or barriers. Institutionalizing change is suggested.	Descriptive Target Population: Social service agencies
Leman P (1997)	To determine the extent of communication problems that arose from emergency department (ED) patients whose primary language was not English.	◆ 17% of patients did not speak English as primary language. ◆ 9.1% had an English ability rated as other than "good." ◆ 29% of consultations could have improved by the use of interpreters. ◆ 4.6% used an interpreter, usually a family member.	Survey Study Participants: Adult emergency department patients

Descriptive

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Meyers C (1992)	To determine the impact of families' cultural beliefs as they affect the design of assessment procedures and practices, to include the most effective way of utilizing interpreter services.	◆ Use of interpreters in a most setting was the most beneficial means of assessing the special needs of children in the Hmong population. interpreters.	Observational assessment Study Participants: Hmong families who had children with development disabilities
Roger P, Code C, Sheard C (2000)	To look at the assessment and treatment practices adopted by speech-language pathologists when working with individuals with aphasia from non-English speaking backgrounds.	Areas of concern: ◆ Need for a range of appropriate assessment and treatment materials; ◆ Need for improvement between speech pathologist and interpreter collaboration; ◆ Need for professional skills development and education particularly when working with patients from diverse language and cultural backgrounds.	Survey Study Participants: Speech language pathologists
Woloshin S, Bickell NA, Schwartz L, Gany F, Welch H (1995)	To examine barriers to health care and the state of laws regarding serving patients with limited English proficiency (LEP).	◆ Reviews the status of interpreter services in the U.S. health care system in 1995, the clinical impact of inadequate interpretation, and the legislative responses to the language needs of LEP patients.	Descriptive Target Population: LEP patients

Patient Comprehension

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Baker DW, Parker RM, Williams MV, Coates WC, Pitkin K (1996)	To determine the frequency of interpreter use for Spanish-speaking patients, patient's perceived need for an interpreter, and the impact of interpreter use on patient's knowledge of their diagnosis and treatment.	◆ For Spanish-speaking patients: 26% utilized an interpreter; 52% felt they did not need an interpreter; 22% needed an interpreter but did not have one provided. ◆ Patients who said an interpreter was not necessary rated their understanding of their disease as good to excellent 67% of the time, compared with 57% of those who used an interpreter and 38% of those who thought an interpreter should have been used. ◆ For understanding of treatment, the figures were 86%, 82%, and 58%, respectively. ◆ Objective measures of knowledge indicated very small differences between groups, generally not statistically significant.	Survey Study Participants: Spanish-speaking patients

Patient Comprehension

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Crane JA (1997)	To assess Spanish-speakers' understanding of diagnoses, prescribed medication, and additional instructions.	◆ When compared to English-speaking group, Spanish-speakers scored significantly lower on all questions. ◆ Physicians identified as the source of most information.	Survey Study Participants: English- and Spanish-speaking patients
David RA, Rhee M (1998)	To determine the impact of language barriers on effective health care.	◆ Both patients who reported using an interpreter or having poor English skills, and patients who reported not using an interpreter and having good English skills, responded that they had enough time to communicate with their doctors. Language barriers were negatively correlated with: ◆ Patient satisfaction. ◆ Side effects being explained. ◆ Fewer preventive tests	Survey Study Participants: Hispanic patients at ambulatory site of a teaching hospital

Patient Satisfaction/Perceptions of Care

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Baker DW, Hayes R, Fortier JP (1998)	To evaluate the effect of interpreting practices on Spanish-speaking patients' satisfaction with the patient- provider relationship.	◆ Compared to patients who did not need interpreter services, patients who needed and got interpreter services rated their provider less friendly, less respectful, less concerned and less likely to make the patient comfortable. ◆ Patients who needed and did not get interpreter services had the lowest satisfaction ratings. ◆ Compared to patients who needed and got interpreter services, those who needed but did not get interpreter services were less satisfied.	Survey Study Participants: Spanish-speaking patients
Carrasquillo O, Orav EJ, Brennan TA, Burstin HR (1999)	To examine non-English speaking patient satisfaction and willingness to return to an emergency department (ED).	When compared to English-speaking patients, non-English-speaking patients were significantly: ◆ Less likely to return to same ED. ◆ Less likely to be satisfied. ◆ More likely to report overall problems with care, communication and testing.	Survey and follow-up interviews Study Participants: English- and non-English speaking patients

Patient Satisfaction/Perceptions of Care

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Hu DJ, Covell RM (1986)	To determine health care usage as a function of primary language.	◆ Use of health services correlated to higher degree of English proficiency. ◆ Individuals whose primary language was English were more satisfied with care and had a more positive view of health status.	Survey Study Participants: Spanish-speaking only patients, bilingual patients, and patients whose primary language was English
Kirkman-Liff B, Mondragon D (1991)	To determine the association between language of interview, and satisfaction, utilization and outcomes.	◆ Language of interview was a more significant variable for Hispanic children than ethnicity in determining health status, access, satisfaction with care, and barriers to care. ◆ Neither language of interview nor ethnicity was a significant variable for Hispanic adults.	Survey Study Participants: Hispanic adults and children
Morales LS, Cunningham, WE (1999)	To examine the association of patient ratings of provider communication with patient language and ethnicity.	◆ Latinos responding in Spanish were significantly more dissatisfied compared with Latinos responding in English, or whites responding in English when asked whether medical staff listened to what they say, answered their questions explanations about prescribed medications, explanations about medical procedures and test results, and reassurances and support from their doctors and office staff.	Survey Study Participants: Patients receiving medical care
Xuo D, Fagan MJ (1999)	To describe the utilization of various methods of language interpretation by Spanish-speaking patients and to determine patients' and physicians' satisfaction with these methods.	◆ Patients and providers had the highest satisfaction with professional interpreters. ◆ Patients were significantly more satisfied than physicians when using family members/friends as interpreters. ◆ Patients and providers agreed that accuracy, accessibility, and respect for confidentiality were highly important characteristics of interpreters. ◆ Patients were more concerned than providers about the ability of the interpreter to assist them after the visit.	Survey Study Participants: Medical residents and Spanish-speaking patients

Utilization of Health Services and Costs

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Bernstein J, Bernstein E, Dave A, Hardt E, James T, Linden J, Mitchell P, Oishi T, Safi C (2000)	To determine the effect of trained interpreters on emergency department (ED) services and subsequent hospital/clinic visits and charges.	Compared to English-speaking patients and patients who received interpreter services, patients who did not receive interpreter services: ◆ Stayed in ED the shortest time. ◆ Received the fewest tests and prescriptions. ◆ Had more frequent returns to ED and lower subsequent clinic utilization. Patients who received interpreter services had the lowest return visit ED charges and total 30-day charges.	Analysis of medical records Study Participants: Emergency Department patients
Carrasquillo O, Orav EJ, Brennan TA, Burstin HR (1999)	To examine non-English speaking patient satisfaction and willingness to return to an emergency department (ED).	When compared to English-speaking patients, non-English-speaking patients were significantly: ◆ Less likely to return to same ED. ◆ Less likely to be satisfied. ◆ More likely to report overall problems with care, communication and testing.	Survey and follow-up interviews Study Participants: English- and non-English speaking patients
Cooke MW, Wilson S, Cox P, Roalfe A (2000)	To determine the general public's understanding of the term "unconscious."	◆ Understanding of the term "unconscious" is poor and worse in those for whom English is not a first language.	Survey Study Participants: Adults who could speak sufficient English to give a history to a nurse
Derose KP, Baker DW (2000)	To determine the effect of limited English proficiency on Latinos' use of physician services.	◆ Likelihood of a physician visit was not related to English proficiency. ◆ Latinos with fair and poor English proficiency reported 22% fewer physician visits than non-Latinos whose native language was English. ◆ The magnitude of the association between limited English proficiency and having poor health, no health insurance, or no regular source of care was similar to that for number of physician visits.	Survey Study Participants: Spanish-speaking Latinos and English speakers of various ethnicities

Utilization of Health Services and Costs

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Dias MR, O'Neill EO (1998)	To determine whether skilled interpreters help in overcoming language barriers.	◆ High correlation between patient access and the availability of interpreters. ◆ Providers perceived their efficacy in providing care improved significantly with the use of interpreters.	Literature review
Drennan G (1996)	To determine the number of patients requiring an interpreter, availability of interpreter services and interview duration.	◆ Interpreter services were available immediately in 69% of cases. ◆ Nursing staff provided 67% of the interpretation. ◆ Cleaning staff provided 10% of the interpretation. ◆ 93.5 documented hours of interpreting. ◆ Professional interpreter had longer interviews on average than ad hoc interpreters.	Survey Study Participants: Patients presenting to a South African mental hospital emergency psychiatric service
Enguidanos ER, Rosen P (1997)	To determine if language is associated with emergency department (ED) visit follow-up compliance.	◆ Language was not found to be a significant variable influencing follow-up compliance. ◆ Having a primary medical doctor and medical insurance were significantly correlated with follow-up compliance.	Survey Study Participants: English- and Spanish- speaking patients
Hampers LC, Cha S, Gutglass D, Binns H, Krug S (1999)	To determine if a language barrier (LB) between families and emergency department (ED) physicians was associated with a difference in diagnostic testing and length of ED stay.	In cases in which a LB existed: ◆ Charges were significantly higher. ◆ ED visit times were significantly longer.	Analysis of program data Study Participants: Patients presenting to a pediatric emergency department.

Utilization of Health Services and Costs

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Hampers LC, McNulty JE (2002)	To determine the impact of professional interpreters on emergency department (ED) resource utilization.	Compared to the English-speaking group, language barrier group (LB) without an interpreter: ◆ Had higher mean costs; ◆ More likely to have a tests performed; ◆ More likely to be admitted; ◆ More likely to receive IV fluids; ◆ Had comparable ED lengths of stay. Compared to the English-speaking group, LB group with an interpreter: ◆ Showed no difference in costs for tests. ◆ Were less likely to be tested. ◆ No more likely to be admitted. ◆ No more likely to receive IV fluids. ◆ Had significantly longer lengths of ED stay. ◆ Compared with the English-speaking group, non-English-speaking patients with bilingual physicians had similar rates of resource utilization. ◆ A comparison of both LB groups demonstrated that the presence of an interpreter was associated with a 15% reduction in means costs for diagnostic testing.	Analysis of program data with comparison group Study Participants: Families of ED patients age 2 months to 10 years of age
Hu DJ, Covell RMM (1986)	To determine health care usage as a function of primary language.	◆ Use of health services correlated to higher degree of English proficiency. ◆ Individuals whose primary language was English were more satisfied with care and had a more positive view of health status.	Survey Study Participants: Spanish-speaking only patients, bilingual patients, and patients whose primary language was English

Utilization of Health Services and Costs

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Jacobs EA, Lauderdale DS, Meltzer D, Shorey JM, Levinson W, Thisted RA (2001)	To determine whether professional interpreter services increase the delivery of health care to limited-English-proficient patients.	Enrollees who used a new interpreter services program were compared to those who did not. ◆ Clinical and preventive service use, office visits, prescriptions written, and prescriptions filled increased significantly in the interpreter services group. ◆ Rectal examinations increased significantly more in the interpreter services group. ◆ Disparities in rates of fecal occult blood testing, rectal exams, and flu immunization between groups were significantly reduced.	Pre-/post-review of medical records, with comparison group Study Participants: Enrollees at an HMO
Jacobs EA, Suaya J, Stone EL, Shepard DS (2001)	To assess the impact of an interpreter service program on the utilization and cost of health care services at a staff model HMO.	Patients who used a new interpreter services program were compared to those who did not. ◆ Utilization of primary health care increased significantly in both groups after implementation of interpreter services (utilization of office visits, prescriptions filled and prescriptions written). ◆ Utilization of hospital-based services remained the same, except for a reduction in emergency department (ED) use by the interpreter services group. ◆ The change in rate of ED use was not significant when compared to the comparison group. ◆ The net cost of providing interpreter services in 1997 prices was $79/per interpretation x 2.95 visits per person/ per year. ◆ The net induced cost of increased care delivered to the interpreter services group was $22.00 greater than the comparison group. ◆ The overall cost impact was an increase of $256.00 per person per year in the interpreter services group, or $2.41 per HMO member year.	Analysis of program data, with comparison group Study Participants: Ambulatory patients at an HMO

Utilization of Health Services and Costs

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Kravitz RL, Helms LJ, Azari R, Antonius D, Melnikow J (2000)	To estimate the effects of limited English proficiency on physician time and resource use.	Compared with English-speaking patients: ◆ After multivariate adjustment, Spanish and Russian speakers averaged 9.1 and 5.6 additional minutes of physician time. ◆ Russian speakers had more referrals. ◆ Spanish speakers were less likely to follow-up with recommended laboratory studies.	Analysis of medical records and observation data and surveys Study Participants: English-, Spanish-, and Russian-speaking Medicaid patients at general medicine and family practice clinics
Lee ED, Rosenberg CR (1998)	To determine whether a difference in the preferred language of communication was associated with greater probability of admission to the hospital.	Comparison of patients whose preferred language was different from that of their primary ED physician, (language disparate) with those whose preferred language was the same (language matched). ◆ Disparate language adults were 70% more likely to be admitted to the hospital compared with matched language adults. ◆ Risk of adult admission was decreased in the presence of an ad hoc interpreter (e.g. family, emergency medical technicians, hospital staff). ◆ No differences were found in the pediatric group.	Survey of convenience sample Study Participants: Adult and pediatric emergency department patients and their physicians

Utilization of Health Services and Costs

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Lee SM, Pope CR (2001)	To determine the effects of interpreter services on utilization of health care by limited-English-proficient (LEP) patients.	Compared to before implementation of interpreter services, LEP enrollees after implementation experienced: ◆ Significant increase in use of health care for all groups, as measured by mean health visits before and after. ◆ Larger significant increased health care use by the elderly, poor, and LEP patients with lower-than-average health care use prior to interpreter services. ◆ Significant increase in cancellations of appointments. ◆ Contrary to hypothesis, significant increases in use of emergency and urgent care facilities were also observed. ◆ Significant decrease in the number of "other" complaint codes. ◆ Contrary to hypothesis, significant increase in length of stay in emergency facilities. ◆ Important sub-group variations by language of patient were observed, underlining diversity of the LEP sample.	Pre-/post analysis of program data. Study Participants: LEP enrollees of an HMO
Sarver J, Baker DW (2000)	To determine whether patients who encountered language barriers (LB) during an emergency department (ED) visit were less likely to be referred for a follow-up appointment and less likely to complete a recommended appointment.	◆ LB may decrease the likelihood that a patient is given a follow-up appointment after an ED visit: 83% of those without LB received a follow-up appointment; 75% of those who utilized an interpreter; 76% of those who said an interpreter should be used but was not. ◆ Study found that patients who experienced LB were equally likely to comply with follow-up appointments.	Analysis of medical records Study Participants: English-and Spanish-speaking patients presenting with non-emergent medical problems

Utilization of Health Services and Costs

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Schur CL, Albers LA (1996)	To examine the role of spoken language in access to health care for Hispanic adults.	◆ Spanish-speakers were less likely than English-speaking Hispanics to have a usual source of care.	Survey Study Participants: Hispanic adults
Tocher TM, Larson EB (1999)	To determine whether physicians at a general internal medicine clinic spend more time with non-English-speaking patients.	◆ Non-English and English-speaking patients did not differ on any time-motion variables including physician time spent on visit. ◆ A significant number of physicians believed that they spent more time with non-English speaking patients (85.7%) and needed more time to address issues (90.4%). ◆ Physicians did not perceive differences in the amount they accomplished during a visit with non-English-speaking patients.	Time-motion, observational comparison Study Participants: English- and non-English speaking patients, third year resident physicians, attending physicians
Woloshin S, Schwartz LM, Katz SJ, Welch HG (1997)	To isolate the effect of language spoken from financial barriers to care by examining the relationship of language to preventive health services utilization in a system with universal access.	Compared with English- speaking Canadians: ◆ French-speaking women were significantly less likely to receive breast exams or mammography. ◆ Other language-speakers were less like to receive Pap testing).	Survey Study Participants: Household population of women residing in Ontario, Canada

Health Outcomes

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Tocher TM, Larson E (1998)	To determine the quality of care provided to non-English-speaking patients with non-insulin-dependent (type 2) diabetes mellitus compared with English-speaking patients	◆ Significantly more non-English-speaking patients received care that met the American Diabetes Association guidelines of 2 or more glycohemoglobin tests per year and 2 or more clinic visits per year. ◆ More non-English-speaking patients had 1 or more dietary consultations ◆ No other significant differences were found in routine laboratory test use, number of ophthalmologic examin-ations, standardized glycohemoglobin and other laboratory results, complication rates, use of health services, and total charges.	Analysis of medical records and program data Study Participants: Non-English-speaking and English-speaking patients

Patient-Provider Communication

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Erzinger S (1991)	To examine the interaction of language and culture in medical encounters between Spanish-speaking Latino patients and providers with a broad range of Spanish language ability.	◆ Spanish language proficiency was not correlated with effective communication.	Ethnographic research and analysis of audiotaped encounters Study Participants: Family practice residents and Spanish-speaking patients
Rivadeneyra R, Elderkin-Thompson V, Silver RC, Waitzkin H (2000)	To examine physicians' use of the patient-centered approach with patients who required the assistance of an interpreter.	◆ English-speaking patients offered significantly more information than Spanish-speaking patients. ◆ English-speaking patients usually received an answer or acknowledgement to their questions even if the physicians did not encourage further discussion on the topic. ◆ Spanish-speaking patients were less likely to receive facilitation from physicians. ◆ Spanish-speaking patients were more likely to have their comments ignored.	Analysis of videotaped sessions Study Participants: Spanish-speaking patients matched with English-speaking patients presenting to a primary care clinic
Wardin K (1996)	To determine differences in verbal evaluation of clients with limited English proficiency (LEP).	Compared to English-speaking patients: ◆ Providers took 11.5 minutes more to verbally evaluate LEP clients. ◆ Understood patient needs less well. ◆ A better understanding of needs was associated with higher levels of English proficiency.	Survey Study Participants: Occupational Therapists

Quality of Interpretation

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Flores G, Laws MB, Mayo SJ, Zuckerman B, Abreu M, Medina L, Hardt EJ (2003)	To examine interpreter errors and their clinical consequences.	◆ Errors in medical interpretation are common. ◆ Omissions are the most frequent type. ◆ Most errors have potential clinical consequences. ◆ Errors committed by ad hoc interpreters are significantly more likely to have potential clinical consequences than those committed by professional interpreters.	Analysis of audiotapes and transcriptions of encounters Study Participants: Spanish-speaking patients at hospital outpatient clinic
Hornberger JC, Gibson CD Jr, Wood W, Dequeldre C, Corso I, Palla B, Bloch DA (1996)	To assess in a randomized protocol the quality of communication, interpretation, and level of patient, interpreter, and physician satisfaction with "remote-simultaneous interpretation" compared to "proximate-consecutive interpretation."	◆ The remote-simultaneous interpreter service resulted in more physician and patient utterances, and fewer inaccuracies of physician and patient utterances. ◆ Patients and physicians significantly preferred the remote-simultaneous interpretation service. ◆ Interpreters stated that they thought patients and physicians better understood each other using the remote-simultaneous service, although the interpreters preferred to work with the proximate-consecutive service.	Random controlled trial Study Participants: Non-English-speaking mothers
Marcos LR (1979)	To determine the effects of interpreters on the evaluation of psychopathology in non-English-speaking patients.	◆ Results suggest that clinically relevant interpreter-related distortions could lead to misevaluation of patient's mental status. ◆ Pre- and post-interview meetings of clinicians and interpreters may minimize distortions.	Content analysis of audiotaped interpreter-mediated psychiatric interviews Study Participants: Interpreters and providers

Quality of Interpretation

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Xuo D, Fagan MJ (1999)	To describe the utilization of various methods of language interpretation by Spanish-speaking patients and to determine patients' and physicians' satisfaction with these methods.	◆ Patients and providers had the highest satisfaction with professional interpreters. ◆ Patients were significantly more satisfied than physicians to use family members/friends as interpreters. ◆ Patients and providers agreed that accuracy, accessibility, and respect for confidentiality were highly important characteristics of interpreters. ◆ Patients were more concerned than providers about the ability of the interpreter to assist them after the visit.	Survey Study Participants: Medical residents and Spanish-speaking patients

Bilingual Providers

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Flaskerud JH, Liu PY (1991)	To examine the relationship of Asian client-therapist ethnicity, language and gender match on mental health services utilization and outcomes.	◆ Both client-therapist language and ethnicity match had a significant impact on the number of client sessions. ◆ Ethnic match had a significant effect on drop-out rate. Language match had no effect. ◆ Outcomes (admission-discharge scores) were not impacted. ◆ Gender match had no consistent effect.	Analysis of program data Study Participants: Asian consumers of mental health services

Bilingual Providers

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Hampers LC, McNulty JE (2002)	To determine the impact of professional interpreters on emergency department (ED) resource utilization.	Compared to the English-speaking group, language barrier group (LB) without an interpreter: ◆ Had higher mean costs. ◆ More likely to have a tests performed. ◆ More likely to be admitted. ◆ More likely to receive IV fluids. ◆ Had comparable ED lengths of stay. Compared to the English-speaking group, LB group with an interpreter: ◆ Showed no difference in costs for tests. ◆ Were less likely to be tested. ◆ No more likely to be admitted. ◆ No more likely to receive IV fluids. ◆ Had significantly longer lengths of ED stay. ◆ Compared with the English-speaking group, non-English-speaking patients with bilingual physicians had similar rates of resource utilization. ◆ A comparison of both LB groups demonstrated that the presence of an interpreter was associated with a 15% reduction in means costs for diagnostic testing.	Analysis of program data Study Participants: Families of ED patients age 2 months to 10 years of age

Bilingual Providers

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Manson A (1988)	To test the hypothesis that the ability of physicians to speak the same language as asthmatic patients promotes patient compliance and the use of scheduled office appointments in preference to emergency services.	◆ Compared with patients with language concordant physicians, patients with language discordant physicians were only slightly more likely to omit medication, to miss office appointments, and to make at least one emergency room visit. ◆ With extended follow-up, patients cared for by a language discordant physician were more likely to omit medication, more likely to miss office appointments, and were slightly more likely to make an emergency room visit than patients with language concordant physicians.	Analysis of medical records Study Participants: Patients of Spanish-speaking bilingual physicians and patients of non-Spanish speaking physicians

Second-Language Acquisition by Providers

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Binder L, Nelson B, Smith D, Glass B, Haynes J, Wainscott M. (1988)	To provide emergency medical residents with a medical Spanish curriculum that would provide them with sufficient language capabilities.	◆ Course goals were to achieve enough vocabulary for basic information exchange, obtaining uncomplicated medical histories, conducting unassisted physical examinations and giving patient discharge instructions. ◆ Feedback obtained from post-course interviews and instructor assessment indicated that the curriculum resulted in the attainment of the above goals for fully participating physicians.	Descriptive Study Participants: Medical residents
Mazor SS, Hampers LC, Chande VT, Krug SE (2002)	To determine the effect of medical Spanish classes for pediatric emergency department (ED) physicians on data gathering skills, interpreter use and patient satisfaction.	In the post-intervention period: ◆ Physicians were less likely to use an interpreter. ◆ Families were more likely to strongly agree that the physician “was concerned about my child,” “made me feel comfortable,” “was respectful,” and “listened to what I said.”	Survey Study Participants: Pediatric ED physicians and Spanish-speaking-only families.

Translation

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Jackson JC, Rhodes LA, Inui T, Buchwald D (1997)	To examine differences in medical terminology translation and concepts of illness into Khmer.	◆ Interpretations of Hepatitis B into Khmer were problematic and the distinctions and variations need to be made in order to reduce confusion. ◆ Theoretical framework for studying language use in health care and across cultural boundaries is presented.	Interviews Study Participants: Khmer community members who were immune to Hepatitis B, chronic carriers of the virus, and people with symptoms of chronic liver disease
Twinn S (1997)	To examine the influence of translation on the reliability and validity of the findings of a qualitative research design to explore perceptions of factors influencing utilization of Pap smear testing.	◆ No significant differences were generated from the Chinese and English data, some minor themes were identified. ◆ Managing data is more complex when no equivalent word exists in the target language. ◆ Grammatical style influences content analysis, demonstrating the importance of using a single translator.	Content analysis of multiple translations Study Participants: Cantonese women

IV. CATEGORY C: ORGANIZATIONAL SUPPORTS FOR CULTURAL COMPETENCE

Little research specifically examines the processes and outcomes of organizational supports for cultural competence, although progress has been made in developing a conceptual framework that can be used to provide a foundation for research efforts. Specific literature searches were not undertaken for all categories of organizational supports. (See Appendix One for the list of search terms used.) The discussion of the literature separates groups of organizational interventions for which literature was found. For a discussion of community involvement, see *Category A: Family/Community Inclusion.*

Management, Policy and Implementation Strategies to Institutionalize Cultural Competence Activities

Several articles, focusing on the incorporation of a traditional system into a mainstream mental health system, primarily describe different approaches to implementing cultural competence activities in an organization, with very little analysis of outcomes (Giacomelli, 1997; Hagland, Sabatino, and Sherer, 1993; Ratliff, 1999; Salimbene, 1999; Stolk et al., 1998; Sublette and Trappler, 2000). Del Castillo (1999) and Agger-Gupta (2001), focusing on implementation of interpreter services in a variety of different health care organizations, both conducted dissertation research examining a variety of different factors and forces that led to successful and unsuccessful implementation of cultural competence interventions. Two studies found that health care organization policies could be crafted and improved upon when information on program needs and performance is gathered (Giacomelli, 1997; Stolk et al., 1998).

One descriptive article (Johnson and Baboila, 1996) was found on developing a cross-cultural health information system to support providers and patients with information about the cultural beliefs and practices of different ethnic communities.

Design and Use of Surveys and Profile Instruments to Plan for Services and Measure Satisfaction and Quality

As noted by Frayne and colleagues (1996), medical research often excludes people who do not speak English. Lack of research instruments that are valid and reliable with various language and cultural groups is frequently blamed. The research in this area includes reports on the testing of tools to see if they are valid and reliable, and the use of quantitative and qualitative methods to gather relevant cultural information for the purposes of survey design, pilot testing and modification of tools (Hartweg and Berbiglia, 1996; Hayes and Baker, 1998; Koseki, 1996; Morales et al., 1999; Resick et al., 1997; Simpson et al., 1994; Stanton et al., 1995).

Other Organizational/Administrative Supports Not Part of this Literature Review

Cultural Competence Self Assessments

There are a number of assessment tools for health care organizations to gauge where they are on the cultural competence continuum (Paez, 2002). No studies of the impact of cultural competence assessment could be located, but one on-going study is examining feasibility and effectiveness of implementing cultural competency assessment and training for providers as part of a systems approach to deal with culturally competent health care in a managed care setting (Dimas, 2003).

Culturally Appropriate Ethics, Conflict, and Grievance Resolution Processes

More descriptive studies are needed about the kinds of cultural issues that arise in clinical ethics, conflict, or grievance situations. Research by Kauffert and associates (1984; 1998) suggests that even well-trained interpreters who are familiar with professional standards of conduct encounter difficult cultural and ethical conflicts in the context of dealing with complex clinical situations. These situations may arise around truth-telling related to terminal diagnoses (unacceptable in many cultures). Studies are also needed on how best to prepare staff for dealing with these situations in a way that minimizes the danger to clinician-provider trust, and what institutional policies work best to support staff and patients, especially in environments where many cultures are being served.

Research Considerations

In general, considerably more information is needed to document the step-by-step processes of implementing organizational cultural competence interventions, as well as evaluations of what processes are more successful than others. Further work investigating the barriers and supports for successful implementation programs is also necessary.

Researchers should also look at whether the existence of explicit plans and strategies for implementation of cultural competence interventions facilitates and improves the delivery of those services over an ad hoc approach. Are there any organizational preconditions or critically necessary management or policy components required to accomplish outcomes?

More work is needed to determine whether the existence of such information systems results in beneficial utilization by providers and patients, and whether this information is incorporated into practice or behavior change.

Process-related considerations include best practices in providing information about cross-cultural health care and cultural competence issues for everyday use by providers and staff.

It would be useful to investigate what level of community input, data gathering and testing is necessary to develop valid tools for information gathering, as many health care organizations have neither the time nor resources to engage in complex survey development processes for the purposes of service planning and design.

The related question would investigate what kinds of information organizations need in order to develop culturally appropriate programs and systems. Finally, there is the issue of developing valid tools to gather information on patient satisfaction within programs, given the difficulty of reliably measuring satisfaction across ethnic groups.

Management, Policy and Implementation Strategies to Institutionalize Cultural Competence Activities			
Author(s)	**Research Question(s)**	**Findings**	**Study Design/Methodology**
Agger-Gupta N (2001)	To explore how health care organizations make the decision to implement interpreter services programs.	◆ Development typically moved from a stage of "making do" without interpreters, to a "launch" stage, followed by a longer period of "normative growth and maturation" of the interpreter service. ◆ Specific catalysts created the necessary initial momentum for the organization to launch an interpreter service program, including legal, legislative and "trouble case" situations. ◆ At successful sites, the organization's executives championed the interpreter services program.	Transcription and analysis of on-site interviews with key informants. Study Participants: Health care organizations
Del Castillo RR (1999)	To describe the incorporation of *curanderismo* into a public mental health system.	Management strategies that were effectively implemented and resulted in the institutionalization of *curanderismo* into the mental health system, both as a treatment modality and as an educational strategy included: ◆ Building of a solid infrastructure to support alternative mental health programming. ◆ Demonstration of effective leadership. ◆ Strong minority voice. Introduction of intermediaries.	Descriptive Target Population: Hispanic mental health patients
Giacommelli J (1997)	To review the use of health interpreter services as part of a total quality management (TQM) approach.	◆ There was a marked tendency by staff to use non-accredited interpreters. ◆ Staff who used non-accredited interpreters tended to inappropriately assess patient/client interpreting needs and to be unfamiliar with the Health Care Interpreter Policy. ◆ The TQM team subsequently devised several strategies for change.	Survey Study Participants: Staff at health care organization

Management, Policy and Implementation Strategies to Institutionalize Cultural Competence Activities			
Author(s)	**Research Question(s)**	**Findings**	**Study Design/Methodology**
Hagland MM, Sabatino F, Sherer JL (1993)	To describe challenges hospitals face in serving multicultural patients.	◆ Language and cultural differences must both be addressed. ◆ Medical interpreters can serve as cultural brokers. ◆ Some hospitals have set up services specifically for foreign patients.	Descriptive Target Population: Hospitals
Johnson AE, Baboila GV (1996)	To describe the integration of a health information system to meet the needs of providers and patients.	◆ Ethnographic research is used to develop mechanisms for health systems improvements, including a computer-based health information system, brown-bag seminars, and cross-cultural skills training.	Descriptive Study Participant: Hospital
Ratliff SS (1999)	To describe the development of diversity awareness at Children's Hospital in Columbus Ohio.	◆ Describes the integration of administrative and individual initiatives aimed at institutionalizing cultural competence into a hospital system. ◆ A range of efforts are described including international exchange programs to language classes.	Descriptive Study Participant: Hospital
Salimbene S (1999)	To describe the culture-health care relationship and 10 indicators for measuring cultural competence.	◆ Offers a practical, system-wide model for the improvement of nursing care quality through enhanced cultural competency and lists resources that can assist with the integration of cultural competence into health care systems.	Descriptive Target Population: Nurses
Stolk Y, Ziguras S, Saunders T, Garlick R, Stuart G, Coffey G (1998)	To determine the effectiveness of a training and policy strategy to improve communication opportunities in an acute inpatient unit for patients of non-English-speaking background with low English proficiency.	◆ 33% of admissions were from non-English-speaking backgrounds. ◆ Of the 11 languages spoken by patients, 7 were spoken by staff members. ◆ 29% were not clinically proficient in these languages. ◆ Following the intervention, interpreter bookings and booking duration increased significantly. ◆ Standard training packages and policy promoting interpreter use improved communication opportunities.	Pre-/post-test Study Participants: Patients from non-English-speaking backgrounds and clinical staff

Management, Policy and Implementation Strategies to Institutionalize Cultural Competence Activities

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Sublette E, Trappler B (2000)	To examine cultural and religious issues arising in the treatment of Orthodox Jewish inpatients and describes the integration of religious practices into policies and procedures.	◆ Cultural and religious practices of Orthodox Jewish inpatients were accommodated by a health care system. ◆ Cross-cultural therapeutic goals included the integration of non-medical- compromising religious practices, increasing the cultural sensitivity of medical staff through training and understanding the role of religion in patient-provider communication.	Descriptive Study Participant: Hospital

Design and Use of Surveys and Profile Instruments to Plan for Services, and Measure Satisfaction and Quality

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Frayne SM, Burns RB, Hardt EJ, Rosen AK, Moskowitz MA (1996)	To determine how often non-English-speaking (NES) persons are excluded from medical research.	◆ 22% of research investigations included NES persons. ◆ 16% had not considered the issue. ◆ 32% thought inclusion affected their study results. Of the studies that excluded NES persons (40% of the sample): ◆ 51% had not thought of the issue. ◆ Translation issues and recruitment of bilingual staff were frequently cited. ◆ 35% indicated that no NES persons resided in study area. ◆ Exclusion of NES persons from research may limit the generalizability of research findings.	Survey Study Participants: Investigations on provider-patient relations published in major U.S. journals
Hartweg DL, Berbiglia, VA (1996)	To determine whether one part of the Health Promotion Self-Care Interview Guide (HPSCIG), developed to identify self-care actions that promote well-being in healthy, middle-aged Anglo-American and African American women was culturally sensitive for use with Mexican American women.	◆ The findings support the use of the HPSCIG with healthy, middle-aged Mexican American women.	Analysis of congruence and relevance Target Population: Mexican American women

Design and Use of Surveys and Profile Instruments to Plan for Services, and Measure Satisfaction and Quality

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Hayes RP, Baker DW (1998)	To determine the validity and reliability of English and Spanish versions of a patient satisfaction measure Interpersonal Aspects of Care (IAC) Examiner Scale.	◆ The IAC scale was reliable and valid. ◆ The Spanish version was found to be significantly less reliable and valid. ◆ Significant differences between Spanish- and English-speaking patients were found in the majority of individual scale items. ◆ Spanish-speaking patients tended to respond "good" more often than English speakers.	Analysis of reliability and validity coefficients Study Participants: English- and Spanish-speaking patients
Koseki LK (1996)	To describe the self-administered survey process used to obtain data describing utilization and satisfaction patterns of Native Hawaiian elders with the *Good Health and Living for the Elderly* project.	◆ Integration of community in the design and implementation of research increases the likelihood of a culturally appropriate assessment tool and increased response rate.	Descriptive Study Participants: Native Hawaiian elders
Morales LS, Cunningham WE, Brown JA, Liv H, Hays RD (1999)	To examine the association of patient ratings of provider communication with patient language and ethnicity.	◆ Latinos responding in Spanish were significantly more dissatisfied compared with those responding in English, or whites responding in English when asked whether medical staff listened to what they say, answered their questions and gave explanations about prescribed medications, explanations about medical procedures and test results, and reassurances and support from their doctors and office staff.	Survey Study Participants: Patients receiving medical care
Resick LK, Taylor CA, Carroll TL, D'Antonio JA, de Chesnay M (1997)	To describe the integration of a nurse-managed clinic in a predominantly African American apartment building.	◆ Describes the benefits of establishing a clinic in an apartment building whose residents were predominantly elderly African Americans. ◆ Ethnographic research was used to ensure service delivery was culturally competent. ◆ Providing comprehensive services through an outreach-based extension of the system, not only benefits consumers, but also provides clinicians and students with community-focused experiential training.	Descriptive Study Participant: Nurse-managed clinic in a predominantly African American apartment building

Design and Use of Surveys and Profile Instruments to Plan for Services, and Measure Satisfaction and Quality

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Simpson E, Gawron T, Mull D, Walker AP (1994)	To describe the development and evaluation of a Spanish-language prenatal Family Health Evaluation questionnaire.	◆ The Family Health Evaluation aimed to elicit risk factors, to increase clients' knowledge about reproductive choices, and to improve access to genetic services. ◆ Data collected during the pilot study phase of the process indicated that the questionnaire is effective in identifying additional family information needs about medical conditions, counselling, etc.	Descriptive Target Population: Hispanic women
Stanton B, Black M, Feigelman S, Ricardo I, Galbraith J, Li X, Kaljee L, Keane V, Nesbitt R (1995)	To describe the process of creating a culturally and developmentally appropriate data-gathering instrument for use in monitoring the impact of an AIDS educational intervention on the health outcomes of urban African American pre-adolescents and early adolescents.	Describes three phases of a culturally appropriate survey design for minority populations: ◆ Ethnographic research (participant observation, focus groups, individual interviews). ◆ Construction and pilot testing of instrument. ◆ Finalization, including reliability testing.	Descriptive Target Population: African American adolescents

Other Organizational/Administrative Supports Not Part of This Literature Review: Cultural Competence Self Assessment, and Culturally Appropriate Ethics, Conflict, and Grievance Resolution Processes

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Dimas JM (2003)	To examine the feasibility and effectiveness of implementing cultural competency assessment and training for providers as part of a systems approach to deal with culturally competent health care in a managed care setting.	This project is in progress.	Descriptive Study Participant: Managed care plan
Kaufert JM, Koolage WW (1984)	To examine the role conflicts experienced by Cree and Saulteau language speaking interpreters working in 2 urban tertiary medical care centers in Canada.	◆ Describes 4,000 videotaped clinical consultations in which an inventory of roles and situations characterized the work of interpreters. ◆ Sources of role conflict were associated with cross-pressures in their work as language interpreters, culture brokers and patient advocates.	Analysis of videotaped sessions Study Participants: Cree and Saulteau language speaking interpreters

Other Organizational/Administrative Supports Not Part of This Literature Review: Cultural Competence Self Assessment, and Culturally Appropriate Ethics, Conflict, and Grievance Resolution Processes

Author(s)	Research Question(s)	Findings	Study Design/Methodology
Kaufert JM, Putsch RW, Lavallee M (1998)	To examine the experience of Aboriginal medical interpreters working with terminally ill patients, family members and providers.	◆ Analysis focuses on the cultural dimension of value conflict situations, particularly in relation to issues of individual autonomy and biomedical emphasis on truth-telling in the communication of terminal prognosis.	Qualitative observational analysis Study Participants: Medical interpreters
Paez K (2002)	To assist health plans in: 1) assessing the diversity of their population and their current level of cultural and linguistic competence, 2) identifying feasible priority areas for improvement of culturally and linguistically appropriate services (CLAS) based on the assessment, and 3) developing a plan to implement cost-effective and manageable interventions.	◆ Addresses four aspects of the assessment process: 1) preparing the CLAS Assessment and Planning Team, 2) assessing the diversity of members and the community, 3) assessing the managed care plan, and 4) identifying gaps, determining priorities, and briefing senior leaders. ◆ Offers an overview of three areas of concentration for improving CLAS: 1) providing linguistic services (oral and written), 2) improving cultural competence, and 3) developing a diverse workforce. ◆ Appendices include reprints of cultural competence assessment tools.	Guide Target Population: Health care organizations

Appendix Three

Select Research Advisory Committee (RAC)
Meeting Materials

I. RESEARCH ADVISORY COMMITTEE PARTICIPANT ROSTER

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II. RESEARCH ADVISORY COMMITTEE MEETING AGENDA

Sunday, April 1, 2001

9:00-10:00
Welcome and Introductions
Julia Puebla Fortier, Project Director and facilitator;
Guadalupe Pacheco, OMH Project Officer;
Cindy Brach, AHRQ Project Officer

10:00-11:00
Project and Agenda Overview—Fortier
(Project overview and goals, meeting goals, relationship of Culturally & Linguistically Appropriate Services (CLAS) standards to research agenda)

Literature review presentation—Bishop
(Brief review of analysis contained in the binder)

11:00-11:15
Break

11:15-12:15
Group discussion
(Have we hit the target in defining cultural competence? How well does the literature review cover the topic? How can we improve it? Project Goals 1-2)

12:30-1:30
Lunch

1:30-4:00
Breakout overview and breakout discussion

2:30-2:45
Break

Monday, April 2, 2001

9:00-12:00
Process check in and continuation of breakout discussions and completion of group reports

10.30-10.45
Break

12:00-1:00
Lunch

1:00-2:00
Breakout discussion report-out

2:00-4:00
Group discussion
(Invite cross-group responses and additions, and discuss issues raised common to all groups. Does the framework for a research agenda arise from this material? What else is needed? Project Goals 4-5)

2:45-3:00
Break

Tuesday, April 3

9:00-12:30
Group discussion
(Identify and discuss larger contextual issues related to facilitating and disseminating this research. Project Goals 6-7)

10:30-10:45
Break

III. RESEARCH ADVISORY COMMITTEE MEETING GOALS

1. Convene a representative group of researchers, policymakers, funders and health care providers who have an interest in establishing a link between cultural competence and health outcomes.

2. Provide pre-meeting background material that will give participants a common starting point for discussion.

3. Facilitate a discussion that allows participants to share their experience and expertise for the purpose of collecting detailed information to meet the seven project goals

4. Provide an opportunity for RAC members to build future collaborative relationships with each other and others in the field.

BREAKOUT DISCUSSIONS: TASKS AND TOPICS

Common Tasks*:*

1. Review, discuss, and suggest additions to the literature for each topic area
2. Share expertise and experiences relevant to the topic area
3. Brainstorm a list of additional research questions that need to be addressed, identifying research design and execution considerations
4. Rank research questions by feasibility and relative interest in outcome
5. Identify any other relevant issues
6. Prepare report back to group

Breakout A:
Culturally sensitive interventions (cultural competence training/cultural immersion, traditional healers, health promotion, community health workers, racial and ethnic concordance)

Breakout B:
Language barriers and interpretation, patient-provider communication, translation

Breakout C:
Organizational accommodations to support cultural competence (management strategies, policy changes, organizational self assessments, community input/advisory committees, community profiles/data collection)

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Abstracts

PREFACE

The abstracts in this final appendix of *Setting the Agenda for Research on the Cultural Competence in Health Care: Final Report* are from articles cited in the rest of the report. These articles were identified by a literature search conducted to identify research that used empirical analysis to measure the impact of culturally and linguistically competent interventions on outcomes, specifically issues related to access, utilization, and health status.

The literature review was conducted in preparation for a meeting of the project Research Advisory Committee (RAC), held in April 2001. Abstracts were updated if unpublished studies subsequently became published after the meeting, but other literature published since the RAC meeting was not added. Abstracts of articles obtained during the literature review but not cited in the Final Report are not included here. The abstracts in this Appendix were reproduced as they were originally published. Grammatical and other errors were not corrected, nor were abstracts edited for consistent formatting.

The project team developed a key word template consisting of approximately 177 terms and word combinations. (See Appendix One for a complete list of search terms.) The template was applied to major literature databases, including MEDLINE (1966-2001), CINAHL (1982-2001), PsycINFO (1987-2001) and Sociological Abstracts (SOCA)/Sociofile (SOCIO) (1963-2001).

In an attempt to identify additional research, publications, or projects relating to cultural and linguistic competence, a Web site search was also conducted. This entailed the review of 38 private foundations currently funding public health and health services initiatives, 58 health policy organizations and associations, and the government Web sites of all Federal health and human services agencies and bureaus. Information about unpublished studies and research in progress was gleaned from these sources and also from RAC members and other individuals interested in research on cultural competence.

Cultural Competence Education and Training

Allison, K. W., Echemendia, R. J., Crawford, I., and Robinson, W. L. (1996). Predicting cultural competence: implications for practice and training. *Professional Psychology - Research & Practice, 27*(4), 386-393.
Training and work experience with clients from diverse groups were examined among 266 recent PhDs in counseling and clinical psychology. Surveys were mailed to 600 participants who completed their graduate work between 1985 and 1987. Analyses examined which training variables predicted self-rated competence in providing services to various cultural groups. Results indicated that most therapists reported competence in working with diverse clients, but there was notable variability among ratings of therapists' self-perceived competence with different client groups. Exposure during training to working with clients from specific cultural groups was important in predicting therapists' current perceived competence. Most respondents reported accessing education and training experiences in providing services to diverse client groups. A small but troubling number of respondents reported seeing clients despite reporting low levels of competence with that client group.

Copeman, R. C. (1989). Medical students, Aborigines and migrants: evaluation of a teaching program. *Medical Journal of Australia, 150*(2), 84-87.
In spite of evidence of poor communication between Aboriginal patients and doctors, there are few reports of educational efforts to overcome this problem. This paper describes a brief teaching program for fourth-year medical students that was aimed at improving their knowledge of, and attitudes towards, Aboriginal and migrant patients. It comprised a lecture, a clinical contact with an Aboriginal or migrant patient, and a tutorial. Evaluation of the program by the "before-and-after" measurement of student attitudes and knowledge showed a modest improvement in some attitudes, although there was an increased tendency to see all Aborigines as the same. Students' knowledge improved in one of the areas that were tested but not in the other. Teaching in this area could be improved further by more clinical contacts, videotaped consultations, and a student log-book.

Culhane-Pera, K. A., Like, R. C., Lebensohn-Chialvo, P., and Loewe, R. (2000). Multicultural curricula in family practice residencies. *Family Medicine, 32*(3), 167-173.
BACKGROUND AND OBJECTIVES: In 1985, results from a national survey indicated that 25% of family practice residencies taught about multicultural issues in their programs. Our current study identified the current status and content of the curricula and determined facilitating and impeding factors to multicultural curricula. METHODS: In 1998, the Society of Teachers of Family Medicine's Group on Multicultural Health Care and Education conducted a cross-sectional mail survey of all 476 family practice residency programs. RESULTS: With a 59% response rate, 58% of responding programs have an informal curriculum on multicultural issues, 28% have a formal curriculum, and 14% have no curriculum. Programs with a formal curriculum teach more content, employ more educational methods, use more evaluation techniques, and feel more successful than programs with an informal curriculum. Important factors that facilitate curricula include cultural diversity of communities and residents, multicultural interests of faculty and residents, and faculty's multicultural expertise. Factors that impede curricula include lack of time, money, resources, faculty expertise, and cultural diversity in the community. Programs with formal, informal, and no curriculum identify different facilitators and impediments. CONCLUSION: There was a marked increase in the prevalence of multicultural curricula in family practice residencies from 1985 to 1998.

Culhane-Pera, K. A., Reif, C., Egli, E., Baker, N. J., and Kassekert, R. (1997). A curriculum for multicultural education in family medicine. *Family Medicine, 29*(10), 719-723.
BACKGROUND AND OBJECTIVES: To deliver effective medical care to patients from all cultural backgrounds, family physicians need to be culturally sensitive and culturally competent. Our department implemented and evaluated a three-year curriculum to increase residents' knowledge, skills, and attitudes in multicultural medicine. Our three curricular goals were to increase self-awareness about cultural influences on physicians, increase awareness about cultural influences on patients, and improve multicultural communication in clinical settings. Curricular objectives were arranged into five levels of cultural competence. Content was presented in didactic sessions, clinical settings, and community medicine projects. METHODS AND RESULTS: Residents did self-assessments at the beginning of the second year and at the end of the third year of the curriculum about their achievement and their level of cultural competence. Faculty's evaluations of residents' levels of cultural competence correlated significantly with the residents' final self-evaluations. Residents and faculty rated the overall curriculum as 4.26 on a 5-point scale (with 5 as the highest rating). CONCLUSIONS: Family practice residents' cultural knowledge, cross-cultural communication skills, and level of cultural competence increased significantly after participating in a multicultural curriculum.

Edwards, S. L. (1997). *Teaching strategies for multicultural competence (social workers).* Unpublished Ph.D. Dissertation, University of South Carolina, Columbia.
This study evaluates the effectiveness of the presented educational model on graduate social workers' cultural competence. This study also examines the most effective ways to teach culturally sensitive material, using a developmental model that considers racial identity and the relationship to social work education. This quasi-experimental sample consisted of 48 advanced standing MSW students at a Southern university in the summer of 1997. There were 41 women and seven men in the sample. There were 25 White students and 12 African-American students. The age range was from 21 to 51. All participants completed D'Andrea, Daniels, and Heck's (1991) Multicultural Awareness, Knowledge, and Skills Survey at the beginning and at the end of the course. The study group participated in the presented educational model, and the comparison group participated in a traditional teaching format that generally stresses the knowl-

edge component. The study group also completed Janet Helm's Social Identity Scales (1990) during the course. A second design included students' and instructor's journals. This qualitative representation hopefully provides a better understanding of the quantitative data. The students who received the affective educational model displayed significantly greater improvement in the competency area of awareness than students who did not receive the intervention. A positive correlation was also shown between some racial identity stages and cultural competency scores. The exercises gave the students the opportunity to think about how their personal identity in terms of race, gender, ethnicity, and sexual orientation might influence their practice. The journal entries also gave the students the opportunity to describe the intervention and the impact that it had on them. This study offers empirical research in determining the effective teaching strategies for improved multicultural competence, highlighting affective components. The data strongly suggest that only through enhanced educational experiences will students become culturally competent, and only through that improved cultural competence will services be delivered to clients in culturally acceptable ways.

Farnill, D., Todisco, J., Hayes, S. C., and Bartlett, D. (1997). Videotaped interviewing of non-English speakers: training for medical students with volunteer clients. ***Medical Education, 31*****(2), 87-93.**

In a multicultural society such as Australia, with over 20% of its population born overseas, interpreters are often required to facilitate medical interviews. However, where a patient has some proficiency in English, medical interviews are sometimes conducted across the boundaries of culture and language. This is a report of an educational innovation to teach interviewing skills to pre-clinical medical students with the assistance of volunteers of non-English-speaking backgrounds. Pre-clinical students interviewed community volunteers on topics of general life history in a sequence of 16 tutorials. Each student conducted two interviews. Teaching methods included feedback from the volunteers, tutorial discussion facilitated by playback of videotapes, and modeling of skills by the teachers. Evaluations by volunteers and students indicated high satisfaction with the teaching methods and outcomes. Students gained confidence in interviewing people from different cultures. Evaluation of students' pairs of videotapes by an independent rater achieved satisfactory reliabilities and indicated significant gains in inquiry skills and the communication of positive attitudes. Skills in communicating empathy and in using simple language did not improve measurably.

Flores, G., Gee, D., and Kastner, B. (2000). The teaching of cultural issues in U.S. and Canadian medical schools. ***Academic Medicine, 75*****(5), 451-455.**

PURPOSE: Despite the importance of culture in health care and the rapid growth of ethnic diversity in the United States and Canada, little is known about the teaching of cultural issues in medical schools. The study goals, therefore, were to determine the number of U.S. and Canadian medical schools that have courses on cultural issues, and to examine the format, content, and timing of those courses. METHOD: The authors contacted the deans of students and/ or directors of courses on cultural issues at all 126 U.S. and all 16 Canadian medical schools. Using a cross-sectional telephone survey, they asked whether each school had a course on cultural sensitivity or multicultural issues and, if so, whether it was separate or contained within a larger course, when in the curriculum the course was taught, and which ethnic groups the course addressed. RESULTS: The response rates were 94% for both U.S. (118) and Canadian (15) schools. Very few schools (U.S. = 8%; and Canada = 0%) had separate courses specifically addressing cultural issues. Schools in both countries usually addressed cultural issues in one to three lectures as part of larger, mostly preclinical courses. Significantly more Canadian than U.S. schools provided no instruction on cultural issues (27% versus 8%; $p = .04$). Few schools taught about the specific cultural issues of the largest minority groups in their geographic areas: only 28% and 26% of U.S. schools taught about African American and Latino issues, respectively, and only two thirds of Canadian schools taught about either Asian or Native Canadian issues. Only 35% of U.S. schools addressed the cultural issues of the largest minority groups in their particular states. CONCLUSIONS: Most U.S. and Canadian medical schools provide inadequate instruction about cultural issues, especially the specific cultural aspects of large minority groups.

Freed, J. R. (1998). ***Test and dissemination of a multicultural dental education program*****. Princeton, NJ: Robert Wood Johnson Foundation.**

Sociocultural factors present significant barriers to dental health care for members of minority groups in the United States. With this grant from The Robert Wood Johnson Foundation, The University of California, Los Angeles (UCLA), School of Dentistry has developed a set of educational materials — six videotapes and accompanying instructor's manuals—designed to teach dental students, faculty, and practitioners how to effectively communicate with a culturally diverse population. These materials include one videotape with 25 stimulus vignettes — short statements based on actual experiences — featuring actors from a variety of racial/ethnic groups, and five videotapes using the Interpersonal Process Recall (IPR) method of instruction. The IPR tapes were developed by recording the initial encounter / interview of patients by dentists, who then each separately viewed and commented on the tape; these recalls were then edited back into the initial encounter. An instructor's manual was prepared for each videotape. These educational materials were presented at the American Association of Dental Schools' conference in March 1996. They are currently being used in a 20-hour "Culture and Health" required course at UCLA School of Dentistry, in a communications course at the dental school at the University of Colorado, and in a faculty development program at the dental school of the University of Michigan.

Gamble, V. N. (2000). ***Medical education and cultural competence: a strategy to eliminate racial and ethnic disparities in health care.*** **New York: Commonwealth Fund.**

The Association of American Medical Colleges has underscored its commitment to improving health care for minority Americans with its support of a new medical school accreditation standard designed to promote students' and faculties' understanding of the cultural factors that can affect health and health care deliv-

ery. This project will help medical schools assess and develop curricula related to cultural competence by providing guidelines on what should be taught, how it should be taught, and how students are to be evaluated.

Gany, F., and de Bocanegra, H. T. (1996). Maternal-child immigrant health training: changing knowledge and attitudes to improve health care delivery. *Patient Education & Counseling, 27*(1), 23-31.
This paper reports the development, implementation and evaluation of a training program for all levels of staff of Maternity Infant Care Family Planning Centers in New York City. The learner-centered training is designed to enhance cross-cultural sensitivity and communication skills. It provides epidemiological and patient management skills for serving ethnically diverse populations and focuses on skills training, such as the cross-linguistic, cross-cultural interview, and using epidemiological principles in diagnosis and treatment. In addition to the core curriculum, each module is tailored to the site-specific information needs of the participants, as determined during individualized needs assessments. There are five sessions: the cross-cultural medical interview and working with interpreters; epidemiological issues; attitudes and practices in maternal child health; family dynamics and interactions; and a session devoted to follow-up and evaluation. This training has been very successful in enhancing health care providers' sensitivity toward immigrant health issues. Pre- and post-test measurements found statistically significant improvements in the knowledge and attitudes of participants. Patient care has been greatly improved.

Johnson, A. E., and Baboila, G. V. (1996). Integrating culture and healing: meeting the health care needs of a multicultural community. *Minnesota Medicine, 79*(5), 41-45.
Delivering health care to culturally diverse patients is fast becoming an integral part of patient care-a change driven by shifting demographics in Minnesota and especially in the Twin Cities metro area. At United Hospital and Children's Health Care-St. Paul, ethnographic research is being used to create cross-cultural health care information systems that address the needs of providers and patients. These include an easy-to-use computer-based information system, brown bag seminars, and cross-cultural skills training. This article discusses that hospitals' efforts to identify provider needs, collect cultural information, and disseminate that information in a manner that supports quality and cost-effective health care delivery.

Kurtz, A. P. (1999). *Fostering a bicultural familial experience.* Unpublished M.S.W. Dissertation, University of Manitoba, Manitoba.
Transcultural foster placements are common in the child welfare system. Review of the literature revealed that educating foster parents aids in the creation of an awareness of the importance of providing bicultural environments when children enter care. This aids in the development of feelings of self-worth and positive self-identities in the children. Skills and knowledge regarding how to achieve successful bicultural foster placements were taught to caregivers of placed children using a time-limited, structured, psycho-educational group format. The curriculum was based on the adult learning modality within an eco-systemic framework. A support and self-help component was also incorporated to meet the emotional needs of the caregivers participating in the program. The intent of this intervention was to educate the members about the impact of the children's culture on their emotional development and adjustment to placement, as well as to recognize the caregivers' stressors and emotional needs. The end result was the enrichment of the group members' skills in providing culturally respectful care for their foster children, as well as strengthening of the members' personal coping skills with the extreme demands of caring for apprehended children placed in their homes. The program was evaluated through pre- and post- test measures. The findings indicated that the group attracted highly competent caregivers who already had a keen interest in cultural issues and/or professional development.

Lefley, H. P. (1984). Cross-cultural training for mental health professionals: effects on the delivery of services. *Hospital Community Psychiatry, 35*(12), 1227-1229.
This description of research results from the University of Miami's Cross-Cultural Training Institute for Mental Health Professionals cross-cultural training program includes: impact of training on trainees, their agencies and clients; a databased discussion of affective reactions and identity issues raised by self-cultural awareness, with a special focus on minority providers dealing with value and status conflicts; and evaluating the effects of cross-cultural evaluation/long-range evaluation values and world views.

Lindquist, G. J. (1990). Integration of international and transcultural content in nursing curricula: a process for change. *Journal of Professional Nursing, 6*(5), 272-279.
A brief review of education and nursing literature indicates that it is essential to help students develop a global perspective as they prepare to practice nursing in a world of increasingly interdependent nations and people. The process currently being implemented to integrate international and transcultural content in the undergraduate nursing curriculum at a Midwestern state university is described in this article. Assessment of the school indicated that the student population and faculty are characterized by a high degree of radical-ethnic homogeneity. Assessment also included the mapping of content in all required courses in the undergraduate curriculum in the following areas: cultural differences, health care delivery systems in other countries, nursing in other countries, and international health organizations and issues.
Recommendations were then made regarding content in required courses, continuation of elective courses, and informal educational strategies. Examples of these are described, as well as the resultant changes. Some of the changes described include content added and educational strategies used to integrate transcultural and international health content in required courses. Elective courses, taught both on campus and abroad, are briefly described. Evaluation is an ongoing part of overall program evaluation. Highest priority for future planning is currently being placed on development of a semester study-abroad program and increasing cultural diversity in all students' educational experiences.

Majumdar, B., Keystone, J. S., and Cuttress, L. A. (1999). Cultural sensitivity training among foreign medical graduates. *Medical Education, 33*(3), 177-184.
OBJECTIVES: To examine the effectiveness of culture sensitivity training for foreign-trained medical graduates licensed to practice in Ontario, Canada. DESIGN: A study of pretest-post-test design was conducted to determine the effect of cultural sensitivity training on newly immigrated physicians licensed in Canada. Twenty-four physicians, those who had passed the medical licensing exam in 1996 and had not yet started their residency program, were given 15 hours of cultural sensitivity training and were considered the experimental group. This group was compared with a control group of 24 physicians who had passed the licensing exam and were in the process of completing residency. SETTING: University of Toronto. SUBJECTS: Foreign-trained medical graduates. RESULTS: Both groups completed the Cross-Cultural Adaptability Inventory both before and after the training of the experimental group. Statistical significance in three subscales of the Open-Mindedness/Flexibility, Emotional Resilience and Perceptual Acuity dimensions were demonstrated in the experimental group as compared with the control group. CONCLUSIONS: In order for Canada to mold professional and effective physicians, great care must be taken in the design and process of cultural sensitivity programs to enhance both knowledge and skills. Follow-up should be undertaken to compare their effectiveness with the control group.

Napholz, L. (1999). A comparison of self-reported cultural competency skills among two groups of nursing students: implications for nursing education. *Journal of Nursing Education, 38*(2), 81-83.
This study was designed to examine self-reported cultural competency skills of second-semester junior-level nursing students toward clients from culturally diverse backgrounds. The purpose of this study was to ascertain if the addition of an innovative cultural sensitivity intervention facilitated greater self-perceived cultural competency skills when compared with the traditional method of incorporating cultural diversity into a junior-level clinical course. The Ethnic Competency Skills Assessment Inventory was used to collect data from participants attending a university in an urban Midwestern county. Significant differences were noted between the pretest scores and posttest scores. Pretest scores were significantly lower than posttest scores for both groups. Nurse educators must examine further the differences in learning experiences related to cultural diversity that may account for these differences.

Norman, D. M. (1999). The effects of a cross-cultural psychoeducational intervention on counseling graduate students relative to bias reduction toward borderline personality disorder. Unpublished Ph.D. Dissertation, University of Mississippi,
This study examined the presence of bias toward the borderline personality disorder (BPD) diagnostic category as had by counselor education graduate students. Further, this study explored the effect of prior cross-cultural education on BPD bias, and the ameliorating impact an instructional unit, based on cross-cultural theory and methodology, had on BPD bias reduction. Participants in this study were counselor education graduate students at The University of New Orleans and Our Lady of Holy Cross College (n = 74). The Counselor Attitude Survey (CAS), a 44-item instrument containing BPD and V-Code client statements, was developed for use in this study. A dependent group's t-test compared pretest mean BPD and V-Code scale scores and found a more biased or negative counselor attitude toward the BPD condition. An independent group t-test compared participants at pretest who had a cross-cultural educational experience (n = 30) with those who had no such experience (n = 30) and found cross-cultural education experience had no effect on BPD bias. ANCOVA's with pretest CAS BPD scale scores serving as the covariate were conducted on posttest observations. Posttest-1 observations were conducted on treatment and control groups immediately following instructional unit completion. Posttest-2 observations were conducted six weeks post instructional unit. Attrition reduced the posttest observations to thirty graduate students in each of the treatment and control group cohorts. Posttest observations relative to the influence of the instructional unit on bias reduction did not suggest statistical significance. However, posttest-2 results did approach practical significance. A factor analysis on participants' responses to pretest CAS BPD items identified five factors: Self-Insufficiency, Threatening Gestures, Reactivity, Projection, and Self-Injurious Impulsivity. The factors of Threatening Gestures and Reactivity produced a statistically significant posttest-2 treatment shift suggesting the instructional unit had a positive influence on attitude relative to these two named factors. These results are encouraging if they lead to educational interventions and attitudinal measurement instruments designed to monitor and facilitate improved attitude toward difficult client populations such as the BPD category. Efforts to train counselors to work with difficult client populations may be enhanced via an amalgamation with cross-cultural theory and methodology, an approach demonstrated in this study.

Pruegger, V. J., and Rogers, T. B. (1994). Cross-cultural sensitivity training: Methods and assessment. *International Journal of Intercultural Relations, 18*(3), 369-387.
This study compared two methods of training cross-cultural sensitivity: an experiential approach using a simulation game called Bafa Bafa and a lecture-based, cognitive presentation. Sixty-seven undergraduates were assigned to one of four groups. A traditional quantitative program indicator using a carefully designed test to measure sensitivity failed to show differences between the approaches either immediately or at a two-month follow-up. However, qualitative data gathered from personal documents did indicate significantly greater effects of the experiential treatment. The implications of this finding for the documentation of cross-cultural training effects are discussed.

Rankin, S. B., and Kappy, M. S. (1993). Developing therapeutic relationships in multicultural settings. *Academic Medicine, 68*(11), 826-827.
The expertise of native peoples as well as resources drawn from humanities, education, and arts organizations in Arizona contributed to an educational program to heighten the cultural sensitivity of healthcare professionals at the Children's Health Center of St. Joseph's Hospital. The sentiment expressed by Kraut that "respect for the cultural preferences and taboos of more traditional medical systems thus renders American physicians

more effective and in the long-run more efficient" is supported by our experience with this program.

Ricardo, I. B., and Holden, E. W. (1994). Multicultural training in pediatric and clinical child psychology predoctoral internship programs. *Journal of Clinical Child Psychology, 23*(1), 32-38.
Fifty-five directors of training of pediatric and clinical child psychology predoctoral internships regarding the extent of multicultural training in their programs, faculty and trainee ethnic composition, recruitment of minority trainees, content of training curricula, and perceptions of barriers to multicultural training were surveyed. Seventy-five percent of programs indicated the frequent presence of multicultural issues within their training sites, and 35% of the sites reported formal mechanisms for addressing these issues. Ratings of the importance of multicultural training and the presence of minority interns were directly related to the presence of minority faculty. Recruitment of minority trainees occurred largely through program announcements. Didactic seminars on multiculturalism and informal resolution of intercultural conflicts predominated in internship settings with less emphasis on formal structures for addressing multicultural conflicts.

Sachdev, P. (1997). Cultural sensitivity training through experiential learning: A participatory demonstration field education project. *International Social Work, 40*(1), 7-25.
Reports the findings of a sensitivity training program designed to prepare social work students for cross-cultural practice. This pilot project involved four female undergraduates from an eastern Canadian university, who spent eight weeks in New Delhi, India, as part of a field placement to gain direct exposure to a culturally complex society. Program activities included visits to 13 different agencies and participation in programs aimed at the developmental needs of women, children, and marginalized workers. Students were selected on the basis of their maturity, interest in international development and ethnic cultures, and background. Attitudinal pretesting showed one student to hold negative attitudes toward different cultural groups, and these attitudes had intensified at posttesting. The other three students showed favorable changes in attitude and reported greater gains from the experience that had an impact on their personal growth and career choices.

Salcido, R. M., and Garcia, J. A. (1997). A comparative analysis of three cross-cultural training approaches: in search of cross-cultural competency. *Arete, 22*(1), 35-49.
This study compares the efficacy of three social work cross-cultural awareness training models: (1) video training, (2) helping skills, and (3) culture specific. Questionnaire data from 155 Master's of Social Work students at the University of Southern California (Los Angeles) who participated in learning labs, each of which tested one of the models, reveal that the models do not produce similar results in terms of student knowledge, skills, and satisfaction. The video training model, which incorporates the notion of social learning theory, was found to have the greatest impact on cross-cultural development.

Smith, L. S. (1998). *Evaluation of an educational intervention to increase cultural competence among registered nurses.* Unpublished D.S.N. Dissertation, University of Alabama at Birmingham.
All persons deserve to have their ethnicity valued by culturally competent nurses. Limited or lack of cultural competence of practicing nurses has been identified as inappropriate and potentially hurtful and harmful to client care outcomes. The purpose of this two-group intervention study (N = 94) was to determine if registered nurses (RNs) who participated in "culture school" improved objective levels of cultural competence to a greater extent than RNs who attended nursing informatics. The Giger and Davidhizar Transcultural Assessment Model/Theory (GDTAMT) was the study's theoretical foundation. A sample of 120 volunteer subjects (with 10% oversample) was identified from a randomized group of all Jefferson County, Alabama RNs. Randomly assigned participants (stratified by race) experienced 8.5 hours of either culture school or nursing informatics and completed survey tools in three phases (pre-intervention, immediate post intervention, three week follow-up). Cultural Self-Efficacy Scale (CSES) by Bernal and Froman (1987) and knowledge base questions by Rooda (1990) plus demographic profiles were used. Concepts empirically measured using these tools were analyzed by transcultural nursing experts for their congruence with GDTAMT. No significant demographic differences emerged between groups. Repeated measures analyses of covariance (race) resulted in significant differences between groups for both scales. Culture school participants demonstrated significantly greater cultural self-efficacy and cultural knowledge and these improvements remained for phase three. The six difference scores (CSES and knowledge base scales) were regressed individually in a stepwise fashion on the demographic variables. Final models included all significant predictors. Since the informatics group's mean knowledge question scores increased during phase three, factors other than the teaching/learning program may have influenced these levels. All participants reported high degrees of program satisfaction. Further research is recommended to allow for greater generalizability of findings, an examination of client perceptions, and actual nurse behaviors. Quantitative and qualitative examinations are needed regarding potential for increased cultural competence predictors. Most important would be: basic and current levels of education, motivation for cultural diversity program attendance, race, percent of culturally different clients, and nursing experience. How/why these factors impact new cultural competence learning needs further study.

Sublette, E., and Trappler, B. (2000). Cultural sensitivity training in mental health: treatment of Orthodox Jewish psychiatric inpatients. *International Journal of Social Psychiatry, 46*(2), 122-134.
This study examined cultural and religious issues arising in the treatment of 15 Orthodox Jewish inpatients (mean age 36.7 yrs) with major psychiatric disorders at a Brooklyn, New York hospital during the period 1994-1998. Cross-cultural therapeutic goals included integrating patients into the milieu environment and allowing legitimate religious practices while setting limits on maladaptive ritual. To minimize patient alienation, ward policies were modified. Cultural sensitivity training among staff included accommodating customs regarding rules of modesty, sexuality,

loyalty, and honor. Cultural and religious factors distinctly affected presentation, therapeutic interventions, and transference-countertransference reactions. Religion was used by patients and families as a means of defense, rationalization, or power-brokering.

Thom, D., and Tirado, M. (2000). *The impact of cultural competency on outcomes in primary care.* Woodland Hills: California Endowment.
The proposed study will develop, implement and evaluate a program to measure and improve cultural competency. Specifically, the study will assess the impact of cultural competency on outcomes of care for approximately 400 patients with hypertension or diabetes who are self-identified as members of an ethnic minority, in three settings: ten community-based, primary care practices; two academic-based primary care practices; one family practice residency program. Baseline variables, at the time of enrollment, will include measures of the cultural competency of the organizational setting, cultural competency of the physician, patient assessed cultural appropriateness of care, and patient trust in the physician. Baseline patient variables will include functional status, adherence to treatment, and the disease-specific measures of blood pressure for hypertension and glycosylated hemoglobin for diabetes. In phase one of the study, cultural competency will be measured by patient surveys and the results provided, in aggregate, to the physician and her or his office staff. At six months, the study will assess changes in cultural competency, trust, adherence to treatment, and control of diabetes or hypertension. In the second phase of the study, five of the community-based practices and one academic practice site will be selected to receive a cultural competency training intervention developed and administered by the Stanford Geriatric Center in conjunction with each site. Six months after the training, the sites receiving the training intervention will be compared to the corresponding control sites with respect to measures of cultural competency, patient trust and satisfaction, patient adherence to treatment and control of diabetes and hypertension. As of January 1, 2001, we have enrolled 100 patients from our first site and have developed and successfully piloted the training intervention.

Wade, P., and Bernstein, B. L. (1991). Culture sensitivity training and counselor's race: effects on Black female clients' perceptions and attrition. *Journal of Counseling Psychology, 38*(1), 9-15.
Effects of brief culture sensitivity training for counselors and effects of counselors' race on Black female clients' perceptions of counselor characteristics and the counseling relationship and clients' satisfaction with counseling were examined in an actual counseling situation. Client attrition across three sessions was also assessed. Clients assigned to experienced counselors who had received culture sensitivity training rated their counselor higher on credibility and relationship measures, returned for more follow-up sessions, and expressed greater satisfaction with counseling than did clients assigned to experienced counselors who had not received the additional training (control condition). Although same-race counseling dyads resulted in less client attrition, this factor did not influence client perceptions of counselors and the counseling process.

Racial and Ethnic Concordance

Blank, M. B., Tetrick, F. L., Brinkley, D. F., Smith, H. O., and Doheny, V. (1994). Racial matching and service utilization among seriously mentally ill consumers in the rural South. *Community Mental Health Journal,* 30(3), 271-281.
The authors examined racial matching between case manager and client for 677 seriously mentally ill consumers served through a rural community mental health center in the southeastern United States. Nonparametric statistics indicated that client-case manager dyads were more likely to be of the same race than of different races. Same-race dyads tended to have greater service utilization as indicated by a greater number of made appointments over the study period. An interaction was found for failed appointments where African Americans in same-race dyads were more likely to fail appointments, while Caucasian consumers in same-race dyads were less likely to fail appointments.

Flaskerud, J. H. (1986). The effects of culture-compatible intervention on the utilization of mental health services by minority clients. *Community Mental Health Journal, 22*(2), 127-141.
This study examined the relationship between a culture-compatible approach to mental health service and utilization as measured by dropout and total number of outpatient visits. The sample (N = 300) was 23.5% Mexican, 22.8% White, 18.1% Black, 17.1% Vietnamese, 16.8% Filipino, and 1.7% other ethnic group. A culture-compatible approach was found to be effective in increasing utilization. Three culture-compatibility components were the best predictors of dropout status: language match of therapists and clients, ethnic/racial match of therapists and clients, and agency location in the ethnic/racial community. Pharmacotherapy, education, previous treatment and a diagnosis of psychosis were significantly related to remaining in therapy.

Flaskerud, J. H., and Akutsu, P. D. (1993). Significant influence of participation in ethnic-specific programs on clinical diagnosis for Asian Americans. *Psychological Reports, 72*(3 Pt 2), 1228-1230.
Asian American clients (n=1528) in the Los Angeles County mental health system who were seen at ethnic-specific (Asian) clinics by Asian therapists were diagnosed with significantly lower percentages of psychotic disorders and other major psychiatric disorders and significantly higher percentages of nonpsychiatric disorders than were Asian clients who were seen by Asian and white therapists at mainstream clinics.

Flaskerud, J. H., and Hu, L. T. (1994). Participation in and outcome of treatment for major depression among low income Asian-Americans. *Psychiatry Research, 53*(3), 289-300.
This study examined the relationship of four aspects of psychi-

atric treatment (use of medication, client-therapist ethnic match, treatment in an Asian-specific clinic, and professional therapist) to participation in treatment and outcome of treatment in low-income Asian-American clients (n = 273) of the Los Angeles County mental health system who were diagnosed with major depression. Based on cultural responsiveness theory, the study tested the hypothesis that use of medication in treatment would have the greatest effect on participation and outcome followed, in order, by client-therapist ethnic match, treatment in an Asian-specific clinic, and treatment by a professional therapist. The hypotheses were largely supported: treatment with medication had a significant relationship to total number of treatment sessions (participation) and improvement in the admission-discharge Global Assessment Scale (GAS) score (outcome). Treatment by a therapist of the same ethnicity as the client and treatment in an agency designated to provide services to Asian clients both had significant relationships to the number of treatment sessions but not to GAS score improvement. Four covariates included in the analysis and treatment by a professional therapist had no relationship to either of the dependent variables.

Flaskerud, J. H., and Liu, P. Y. (1990). Influence of therapist ethnicity and language on therapy outcomes of Southeast Asian clients. *International Journal of Social Psychiatry, 36*(1), 18-29.

The purpose of this study was to examine the relationship of Southeast Asian client-therapist ethnicity and language match on three therapy outcomes: number of sessions with primary therapist, dropout from therapy and admission-discharge difference in Global Assessment Scale (GAS) scores. The sample consisted of 543 Southeast Asian client episodes in Los Angeles County mental health facilities between January 1983 and August 1988. Various types of multiple regression analyses were used to investigate the relationship of language and ethnicity match to the three outcome variables and to eight sociodemographic variables. Either therapist-client language or ethnicity match significantly increased the number of client sessions with the primary therapist. Dropout from therapy was significantly affected by a language match in the Cambodian sample only but the effect was to increase dropout. Neither ethnicity nor language match was significantly related to GAS score gain. Several possible explanations for these findings and their clinical significance were explored.

Flaskerud, J. H., and Liu, P. Y. (1991). Effects of an Asian client-therapist language, ethnicity and gender match on utilization and outcome of therapy. *Community Mental Health Journal, 27*(1), 31-42.

The purpose of this study was to examine the relationship of Asian client-therapist ethnicity, language and gender match on two measures of utilization: number of sessions with primary therapist and dropout from therapy; and one measure of client outcome: admission-discharge difference in Global Assessment Scale (GAS) scores. The sample consisted of 1746 Asian client episodes in Los Angeles County mental health facilities between January 1983 and August 1988. Various types of multiple regression analyses were used to investigate the relationship of language, ethnicity, and gender match to the three dependent variables and to eight socio-demographic variables. Either client-therapist language match or ethnic match significantly increased the number of client sessions with the primary therapist. However, only ethnicity match had a significant effect on dropout rate. Gain in GAS admission-discharge score was not affected by either a client-therapist ethnicity or language match. Gender match had no consistent effect on the dependent variables. Of the covariates examined, only therapist discipline (social worker) had a consistent effect on the dependent variables. It was concluded that both client-therapist language and ethnicity match are important variables affecting the utilization of treatment. Further research will be needed to separate the effects of language and ethnicity on therapy utilization.

Handler, A., Raube, K., Kelley, M. A., and Giachello, A. (1996). Women's satisfaction with prenatal care settings: a focus group study. *Birth, 23*(1), 31-37.

BACKGROUND: Patient satisfaction is considered, together with health status, to be an outcome of the delivery of health care services as well as a measure of its quality. A focus group study of 50 low-income Mexican-American, Puerto Rican, African-American, and white women in Chicago, Illinois, explored the characteristics of prenatal care that affect women's satisfaction. METHODS: Transcripts from the focus groups were analyzed using researcher-derived coding categories to develop broad themes. RESULTS: Despite their diverse ethnic backgrounds, participants revealed few differences with respect to what they value in prenatal care. Aspects of care that appeared to affect women's satisfaction included the "art of care," the technical competence of the practitioner, continuity of caregiver, and the atmosphere and physical environment of the care setting. The one characteristic that did not appear to affect satisfaction was the caregiver's ethnicity. CONCLUSION: Knowledge of how the characteristics of prenatal care affect women's satisfaction can help increase use of care and ultimately improve perinatal outcomes.

Porter, J. R., and Beuf, A. H. (1994). The effect of a racially consonant medical context on adjustment of African-American patients to physical disability. *Medical Anthropology, 16*(1), 1-16.

The effect of a racially consonant medical context on reaction to physical handicap stemming from disease is explored in a sample of 90 African-American patients with vitiligo, a disfiguring skin disorder. The adjustment of sixty-nine patients in a predominantly black hospital setting is compared to that of twenty-one patients in a predominantly white hospital setting. The patients in the predominantly black clinic, where the physicians, staff, and clientele are African-American, show significantly better adjustment than do African-American patients in a medical context that is primarily white. Interviews with a random sample of one-third of the patients in each clinic show that patients are significantly more positive to black physicians and a black hospital setting and that other patients of the same race provide informal networks of support, as does the predominantly African-American community in which the hospital is located. Implications for both medical theory and practice are suggested on the basis of these findings.

Rubin, D. B. (1999). *Parental satisfaction with mental health case management services for their children.* Unpublished Ph.D. Dissertation, University of Pittsburgh.

Children with serious emotional difficulties often receive services from disparate service sectors. Case management services for these children and their families can provide coordination of care, support parents and help children remain at home. This study examined parent satisfaction with case management services and parents' perceptions of the cultural competence of their children's case managers. One hundred forty-six randomly selected parents of children with extensive mental health needs were interviewed. Twenty-six additional families receiving services from an agency providing intensive case management services were also interviewed. All families received medical assistance for some or all of their child's treatment. New measures of case management satisfaction and cultural competence were administered and required parents to rate specific aspects of satisfaction and cultural competence on a 1 to 5 scale. Interviews also included five measures of child and family functioning. Summary scores from these measures were used to construct a severity index. Case management services were categorized for all respondents as either "traditional" or "intensive." Results from the study showed that mothers of children who were employed were significantly more satisfied with case management services than those who were not employed. Other demographic variables were not significant. Parents receiving intensive case management were more satisfied than those receiving traditional case management when controlling for demographic variables and functional status of the child and the family. Cultural competency scores were significantly related to overall satisfaction scores and intervened in the relationship between type of case management and parent satisfaction. There appeared to be conceptual overlap in the instruments used to measure satisfaction and cultural competency. Cultural competency appears to be difficult to operationalize as a discreet concept although racial match of the parent and case manager was significantly related to cultural competency but not satisfaction scores. No relationship was found between functional status and type of case management suggesting that children receive case management services for reasons other than severity of their or their families' problems. Further research is needed to determine who receives intensive case management and to refine measures of cultural competency.

Saha, S., Komaromy, M., Koepsell, T. D., and Bindman, A. B. (1999). Patient-physician racial concordance and the perceived quality and use of health care. *Archives of Internal Medicine, 159*(9), 997-1004.

BACKGROUND: Patients from racial and ethnic minority groups use fewer health care services and are less satisfied with their care than patients from the majority white population. These disparities may be attributable in part to racial or cultural differences between patients and their physicians. OBJECTIVE: To determine whether racial concordance between patients and physicians affects patients' satisfaction with and use of health care. METHODS: We analyzed data from the 1994 Commonwealth Fund's Minority Health Survey, a nationwide, telephone survey of noninstitutionalized adults. For the 2201 white, black, and Hispanic respondents who reported having a regular physician, we examined the association between patient-physician racial concordance and patients' ratings of their physicians, satisfaction with health care, reported receipt of preventive care, and reported receipt of needed medical care. RESULTS: Black respondents with black physicians were more likely than those with nonblack physicians to rate their physicians as excellent (adjusted odds ratio [OR], 2.40; 95% confidence interval [CI], 1.55-3.72) and to report receiving preventive care (adjusted OR, 1.74; 95% CI, 1.01-2.98) and all needed medical care (adjusted OR, 2.94; 95% CI, 1.10-7.87) during the previous year. Hispanics with Hispanic physicians were more likely than those with non-Hispanic physicians to be very satisfied with their health care overall (adjusted OR, 1.74; 95% CI, 1.01-2.99). CONCLUSIONS: Our findings confirm the importance of racial and cultural factors in the patient-physician relationship and reaffirm the role of black and Hispanic physicians in caring for black and Hispanic patients. Improving cultural competence among physicians may enhance the quality of health care for minority populations. In the meantime, by reducing the number of underrepresented minorities entering the US physician workforce, the reversal of affirmative action policies may adversely affect the delivery of health care to black and Hispanic Americans.

Saha, S., Taggart, S. H., Komaromy, M., and Bindman, A. B. (2000). Do patients choose physicians of their own race? *Health Affairs, 19*(4), 76-83.

This study seeks to determine whether minority Americans tend to see physicians of their own race as a matter of choice or simply because minority physicians are more conveniently located within predominantly minority communities. Using data from the Commonwealth Fund 1994 National Comparative Survey of Minority Health Care, we found that black and Hispanic Americans sought care from physicians of their own race because of personal preference and language, not solely because of geographic accessibility. As minority populations continue to grow, the demand for minority physicians is likely to increase. Keeping up with this demand will require medical school admissions policies and physician workforce planning to include explicit strategies to increase the supply of underrepresented minority physicians.

Sawyer, L., Regev, H., Proctor, S., Nelson, M., Messias, D., Barnes, D., and Meleis, A. (1995). Matching versus cultural competence in research: methodological considerations. *Research in Nursing and Health, 18*(6), 557-567.

OBJECTIVE: The purpose of this paper is: to consider the complexities in using matching in research with diverse populations; to challenge the idea that matching of researchers and participants is the only strategy for generating culturally valid knowledge, and to argue that cultural competence, as a synthesis of cultural knowledge, sensitivity, and collaboration, could be used in facilitating the development of culturally competent nursing knowledge. RESULTS/CONCLUSIONS: Conceptual issues for cultural matching in research projects include: (1) what to match (ethnicity, geographic area and/or residence, language, social class, social values, gender, etc.), (2) when to match (during question development), data collection, data analysis, dissemination of findings, (3) and feasibility of matching (availability and costs). Essential components in the conduct of culturally competent

research include cultural knowledge, cultural sensitivity, and collaboration. Culturally competent knowledge will not be developed and expanded without methods and research processes that are more congruent with population diversity. We have argued that the complexity inherent in matching hinders, rather than promotes, the pursuit of cultural diversity in research. We further argued that matching may be one possible strategy but that it, in itself, does not ensure cultural competence in the research process.

Snowden, L. R., Hu, T., and Jerrell, J. M. (1995). Emergency care avoidance: ethnic matching and participation in minority-serving programs. *Community Mental Health Journal, 31*(5), 463-473.

Using data from a county level mental health service system, relationships were examined between ethnic matching, program involvement and emergency service use. When clients were matched with an ethnically similar clinician who was also proficient in their preferred language, they had fewer emergency service visits than did clients who were unmatched on the basis of ethnicity and language. Equally if not more significant than ethnicity or language matching was the client's program and the proportion of minority clients it served. Clients in programs serving a relatively large proportion of minority clients had fewer emergency service visits than those in programs serving a smaller proportion of minority clients. More research is needed to document the impact of matching along with greater attention to minority oriented programs.

Takeuchi, D. T., Sue, S., and Yeh, M. (1995). Return rates and outcomes from ethnicity-specific mental health programs in Los Angeles. *American Journal of Public Health, 85*(5), 638-643.

OBJECTIVES. The present study compared the return rate, length of treatment, and treatment outcome of ethnic minority adults who received services from ethnicity-specific or mainstream programs. METHODS. The sample consisted of 1516 African Americans, 1888 Asian Americans, and 1306 Mexican Americans who used 1 of 36 predominantly White (mainstream) or 18 ethnicity-specific mental health centers in Los Angeles County over a 6-year period. Predictor variables included type of program (ethnicity specific vs mainstream), disorder, ethnic match (whether or not clients had a therapist of the same ethnicity), gender, age, and Medi-Cal eligibility. The criterion variables were return after one session, total number of sessions, and treatment outcome. RESULTS. The study indicated that ethnic clients who attended ethnicity-specific programs had a higher return rate and stayed in the treatment longer than those using mainstream services. The data analyses were less clear cut when treatment outcome was examined. CONCLUSIONS. The findings support the notion that ethnicity-specific programs seem to increase the continued use of mental health services among ethnic minority groups.

Community Health Workers

Barnes-Boyd, C., Norr, K. F., and Nacion, K. W. (1996). Evaluation of an interagency home visiting program to reduce postneonatal mortality in disadvantaged communities. *Public Health Nursing, 13*(3), 201-208.

This paper describes an interagency home visiting program, Resources, Education and Care in the Home (REACH), designed to reduce preventable causes of morbidity among normal, socioeconomically disadvantaged infants at risk for adverse outcomes due to social factors. Home nursing visits by a trained nurse-community worker team were made throughout the first year of life to 1,269 infants from predominantly African American families. Results demonstrate that repeated home visits with ongoing infant health monitoring plus individualized and culturally sensitive teaching helped mothers maintain good health practices and identify illnesses early. Infants' outcomes during the neonatal period and at 12 months showed consistent, though statistically nonsignificant, positive effects on physical health. The postneonatal mortality rate among REACH infants was 4.7 deaths per 1000 live births in communities where rates for nonparticipants ranged from 5.2 to 10.9 per 100. The evaluation demonstrates a need in this population for more intensive services with greater continuity of care. Specific areas where more education is needed include home safety, skin care, and early identification and treatment of upper respiratory infections. Infants from communities with high infant mortality rates present numerous preventable morbidities requiring interventions, even when they are not considered medically high-risk at birth.

Bird, J. A., McPhee, S. J., Ha, N. T., Le, B., Davis, T., and Jenkins, C. N. (1998). Opening pathways to cancer screening for Vietnamese-American women: lay health workers hold a key. *Preventive Medicine, 27*(6), 821-829.

PURPOSE: We describe a controlled trial of a community outreach intervention to promote recognition, receipt, and screening-interval maintenance of clinical breast examinations (CBE), mammograms, and Pap smears among Vietnamese-American women. METHODS: Over a 3-year period, indigenous lay health workers conducted small-group sessions of Vietnamese women in a low-income district of San Francisco, California. Women in Sacramento, California, served as controls. Lay workers conducted 56 sessions on general prevention, 86 on cervical cancer, and 90 on breast cancer. Surveys of 306 to 373 women were conducted in the study communities in 1992 and 1996. RESULTS: In the intervention community, recognition of screening tests increased significantly between pre- and post-intervention surveys: CBE, 50 to 85%; mammography, 59 to 79%; and Pap smear, 22 to 78% ($P = 0.001$ for all). Receipt of screening tests also increased significantly: CBE, 44 to 70% ($P = 0.001$); mammography, 54 to 69% ($P = 0.006$); and Pap smear, 46 to 66% ($P = 0.001$). Best-fitting logistic regression models, adjusting for

preintervention rates and significant covariates, also showed statistically significant odds ratios for the intervention effect (P < 0.0001). CONCLUSIONS: Trained Vietnamese lay health workers significantly increased Vietnamese women's recognition, receipt, and maintenance of breast and cervical cancer.

Buchanan, T. J. (1999). *Health promotion behaviors of Mexican-American adults participating in a Promotoras project.* Texas Tech University, Lubbox, TX
The purpose of the descriptive study was to provide a comparison of the number of health promoting behaviors of the "Promotoras" project group with a group of prospective project members who have not had the educational intervention. The Health Promoting Lifestyle Profile (HPLP) instrument and a demographic information sheet were administered to a convenience sample of Promotoras project participants and prospective clients of the same program before intervention. The independent variables of culturally competent basic health care education, assistance with access to economic and social resource programs, and the personal social support of Promotoras personnel were assessed. The dependent variable of the two groups was the number and type of health promotion behaviors. The study results contributed to the knowledge about health promoting behaviors in Mexican-American adults in the southern Texas/ New Mexico area and support the effectiveness of the Promotoras teaching project.

Burhansstipanov, L., Dignan, M. B., Wound, D. B., Tenney, M., and Vigil, G. (2000). Native American recruitment into breast cancer screening: the NAWWA project. *Journal of Cancer Education, 15*(1), 28-32.
BACKGROUND: American Indian women's historically low breast cancer incidence and mortality rates have gradually increased such that in many parts of the United States they equal "U.S. All Races" rates. Thus, American Indian women need screening to maintain their low rates. METHODS: In an outreach program, local American Indian women were trained as lay health advisers, "Native Sisters," to locate and contact American Indian women in the Denver metropolitan area and provide education and encouragement to increase participation in mammography screening. Participation was monitored and interviews collected descriptive information and information about risk factors for breast cancer. An interrupted-time-series design was used to assess changes in mammography participation. RESULTS: The Native American Women's Wellness through Awareness (NAWWA) program increased recruitment of American Indian women ($p < 0.05$). Women recruited by the Native Sisters were more likely to be currently on hormone replacement therapy and to be menopausal. CONCLUSIONS: The lay health adviser program was effective in recruiting American Indian women to have screening mammography. Barriers to participation were complex and often involved cultural values and beliefs.

Corkery, E., Palmer, C., Foley, M. E., Schechter, C. B., Frisher, L., and Roman, S. H. (1997). Effect of a bicultural community health worker on completion of diabetes education in a Hispanic population. *Diabetes Care, 20*(3), 254-257.
OBJECTIVE: To determine the effect of a bicultural community health worker (CHW) on completion of diabetes education in an inner-city Hispanic patient population and to evaluate the impact of completion of the education program on patient knowledge, self-care behaviors, and glycemic control. RESEARCH DESIGN AND METHODS: Patients were randomized into CHW intervention and non-CHW intervention groups. All patients received individualized, comprehensive diabetes education from a certified diabetes nurse educator after baseline demographic information, diabetes knowledge, diabetes self-care practices, and glycohemoglobin levels were assessed. Rates of education program completion were determined. Diabetes knowledge, self-care practices, and glycohemoglobin levels were reassessed at program completion and at a later post-program follow-up medical appointment and compared to baseline. Logistic regression analysis and the Mantel-Haenszel chi 2 statistic were used to determine the effect of the CHW assignment on program completion. Analyses of covariance were performed with end-of-treatment behavior scores, knowledge scores, and glycohemoglobin levels as outcome variables, controlling for baseline values and testing for the effect of CHW assignment. RESULTS: Of 64 patients enrolled in the study, 40 (63%) completed and 24 (37%) dropped out before completing the diabetes education program. Of the patients having CHW intervention, 80% completed the education program, compared with 47% of patients without CHW intervention ($P = 0.01$). "Dropouts" were younger (age 47.5 +/- 12.5 years [mean +/- SD]) compared with patients who completed the program (55.9 +/- 9.9 years) ($P = 0.004$). Dropout status showed no significant relationship to educational level achieved or literacy level. For the program "completers," knowledge levels and selected self-care practices significantly improved, and glycohemoglobin levels improved from a baseline level of 11.7% to 9.9% at program completion ($P = 0.004$) and 9.5% at the postprogram follow-up ($P < 0.001$). The effect of the CHW assignment on program completion, controlling for financial status and language spoken, was extremely robust ($P = 0.007$). The effect of the CHW on knowledge, self-care behavior, or glycohemoglobin outcome variables was not statistically significant. CONCLUSIONS: These findings suggest that intervention with a bicultural CHW improved rates of completion of a diabetes education program in an inner-city Hispanic patient population irrespective of literacy or educational levels attained. Our data further suggests that completion of individualized diabetes educational strategies leads to improved patient knowledge, self-care behaviors, and glycemic control.

Earp, J. A., and Flax, V. L. (1999). What lay health advisors do: an evaluation of advisors' activities. *Cancer Practice, 7*(1), 16-21.
PURPOSE: Since the 1970s, health promotion and disease prevention programs that rely on lay health advisors have proliferated, making it important to ascertain the levels and types of activity that can reasonably be expected from such advisors. This report describes the activities of lay health advisors participating in a program to increase mammography screening by older African American women and shares lessons that the authors learned about evaluating advisors' activities. DESCRIPTION OF STUDY: Between September 1994 and January 1996, 144 lay health advisors, associated with the North Carolina Breast Cancer Screening Program, were asked to complete, on a periodic basis, a standardized, self-administered activity report that asked about

group presentations in the past 3 months and one-on-one contacts in the past week. Eighty-five advisors submitted one or more reports. The authors tabulated responses for lay health advisors overall, for those turning in one or more reports, and for those reporting a specific type of activity. RESULTS: The responses showed that North Carolina Breast Cancer Screening Program lay health advisors made approximately one group presentation every 3 months and had one to three individual contacts per week. Group presentations were commonly in churches and homes, and focused on who needs a mammogram, how then, and where to get one. During one-on-one encounters, advisors primarily encouraged women to get mammograms or discussed fears about mammograms. CLINICAL IMPLICATIONS: Information about lay health advisor activities serves several important purposes. Such information allows programs to identify the types of messages that lay health advisors transmit and the number of contacts they make, while also identifying the groups that are more and less difficult to reach, and the topics and locations favored by advisors and the women they contact. Activity data may indicate what resources or other support the advisors need, whether in-service training is necessary, and how to enhance the recruitment and training of additional lay health advisors.

Fernandez, M. E., DeBor, M., Candreia, M. J., Wagner, A. K., and Stewart, K. R. (1999). Evaluation of ENCOREplus. a community-based breast and cervical cancer screening program. ***American Journal of Preventive Medicine, 16*****(3 Suppl), 35-49.** BACKGROUND: Minority women and women with low income levels are significantly less likely to practice appropriate mammography and Pap test screening. ENCOREplus is a health promotion program that provides outreach, education, referral, and other services that facilitate breast and cervical cancer screening for medically underserved women. The program is delivered through a network of community-based non-profit organizations (YWCA of the U.S.A). The purpose of this study was to assess the effectiveness of ENCOREplus in promoting mammography and Pap test screening among women who were nonadherent to screening guidelines. METHODS: Baseline data were collected from women participating in the program. Follow-up occurred within six months of baseline to assess whether or not enrollees received recommended screenings. Screening-completion rates were compared to rates from other published intervention studies. RESULTS: Data from the program's second implementation year show that 27,494 women participated in the ENCOREplus program. Over half the women were racial/ethnic minorities, over 75% reported annual incomes under $15,000, and 49% reported no insurance. Among women 40 and over, 69.7% were nonadherent to ACS mammography screening guidelines at baseline. Among participants 18 and older, 68.9% were nonadherent to Pap test screening guidelines. Of nonadherent participants, 57.8% received mammograms and 36.5% received Pap tests. Both mammography and Pap test screening-completion rates compared favorably with other programs. CONCLUSION: This study demonstrates that programs implemented through community-based organizations can be successful in increasing mammography and Pap test screening among low-income and minority women.

Rodney, M., Clasen, C., Goldman, G., Markert, R., and Deane, D. (1998). Three evaluation methods of a community health advocate program. ***Journal of Community Health, 23*****(5), 371-381.** The title Community Health Advocate (CHA) is one of thirty or more titles used throughout the world for an indigenous outreach worker who is trusted and respected in his or her community and who serves as a bridge between peers and health professionals. In 1992, the Center for Healthy Communities in Dayton, Ohio developed a program to train as Advocates people indigenous to the communities in which they would be working. Since the first CHAs began work in January 1993, the effectiveness of the program has been evaluated from three perspectives: the Community Health Advocates, the managers/directors of the community sites at which the CHAs work, and the clients with whom the CHAs work. Advocates indicated that the training program adequately prepared them for their roles and functions. They also identified systematic frustrations and barriers that made it more difficult for them to perform their job. Community site directors and community leaders indicated that the CHAs were considered a positive force in meeting client needs and facilitating independence, and were very effective in outreach and coordination of resources. A survey of CHA clients revealed an overwhelmingly positive response to the Advocate's work, validating the belief that CHAs can fill an important niche in the health care community. The three evaluation processes described in this paper helped to document the need for and the effectiveness of this program and can serve as a model for similar programs.

Weber, B. E., and Reilly, B. M. (1997). Enhancing mammography use in the inner city: a randomized trial of intensive case management. ***Archives of Internal Medicine, 157*****(20), 2345-2349.** BACKGROUND: Breast cancer screening with mammography is an effective intervention for women aged 50 to 75 years but it is underused, especially by the urban poor. OBJECTIVE: To improve mammography completion rates for urban women aged 52 to 77 years who had not had a mammogram in at least 2 years. METHODS: We conducted a randomized controlled trial of a case management intervention by culturally sensitive community health educators versus usual care in six primary care practices supported by a computerized clinical information system. RESULTS: Women in the intervention group were nearly three times as likely to receive a mammogram (relative risk, 2.87; 95% confidence interval, 1.75-4.73). The benefit persisted when analyzed by age; race, and prior screening behavior. This intervention was practice based, not dependent on visits, and enhanced the efficacy of an already successful computerized preventive care information system. CONCLUSIONS: Personalized education and case management are successful in enhancing compliance with breast cancer screening among historically noncompliant vulnerable urban women. This intervention, when combined with a preventive care information system, has the potential to achieve Healthy People 2000 objectives for breast cancer screening.

Cultural Competence Health Promotion

Alcalay, R., Alvarado, M., Balcazar, H., Newman, E., and Huerta, E. (1999). Salud para su corazon: a community-based Latino cardiovascular disease prevention and outreach model. *Journal of Community Health, 24*(5), 359-379.
Cardiovascular disease (CVD) is the leading cause of death for Latinos living in the United States. This population is generally unaware of important lifestyle or behavioral changes that can prevent CVD. The National Heart, Lung, and Blood Institute (NHLBI) designed and implemented Salud para su Corazon (Health for Your Heart), a culturally appropriate, community-based, theory-driven intervention model. NHLBI's goals were: (1) to design an intervention model appropriate to Latino populations; (2) to pilot test the model in a specific community with the objectives of increasing awareness about heart disease, raising knowledge about CVD prevention, and promoting heart-healthy lifestyles; and (3) to disseminate the model and the materials developed to other communities with similar needs. An agency-community partnership, under the leadership of the Community Alliance for Heart Health, guided all stages of the community intervention project. The multimedia bilingual community intervention included television telenovela format public service announcements (PSAs), radio programs, brochures, recipe booklets, charlas, a promotores training manual, and motivational videos. An evaluation survey assessed the impact of the intervention. A pre-post intervention survey was conducted with more than 300 participants, and results showed that the respondents were substantially more aware of risk factors for CVD, and had greatly increased their knowledge of ways to prevent heart disease. Dissemination efforts have resulted in numerous requests by health organizations, universities, and health maintenance organizations (HMOs) for educational materials and communication strategies produced by Salud para su Corazon. In addition, Univision, the largest Spanish-language broadcast television network, is airing the initiative's PSAs. Also, training seminars for promotores are being conducted in different regions of the United States, and several locations are planning to replicate this study.

Bailey, E. J., Erwin, D. O., and Belin, P. (2000). Using cultural beliefs and patterns to improve mammography utilization among African-American women: the Witness Project. *Journal of the National Medical Association, 92*(3), 136-142.
Breast cancer and early detection of the disease is a significant issue for all women. Moreover, the sociocultural implications in the differential mortality rates increased interest in possible barriers to screening practices. Recently, a number of studies have investigated African Americans' cultural beliefs associated with breast cancer. This study is based upon qualitative focus group data gathered from 1989 to 1991 and 1996. This article provides focus group data that informed a culturally competent community-based cancer education program for African-American women—the Witness Project. Analysis of the qualitative data along with the quantitative outcome data revealed a direct relationship between cultural beliefs and patterns with mammography utilization. The once perceived cultural barriers can actually be applied as a cultural intervention strategy to improve breast cancer screening initiatives designed specifically for African-American women.

Barnhart, J. M., Mossavar-Rahmani, Y., Nelson, M., Raiford, Y., and Wylie-Rosett, J. (1998). Innovations in practice. An innovative, culturally-sensitive dietary intervention to increase fruit and vegetable intake among African-American women: a pilot study. *Topics in Clinical Nutrition, 13*(2), 63-71.
Thirty African-American women (mean age 60.5 years) participated in a church-based, three-session workshop pilot program that focused on increasing fruit and vegetable intake. The program was designed and presented by a medical school-based health professional team in consultation with the church's Nurses' Unit. Fruit and average daily vegetable intake increased from 0.89 to 1.2 and from 0.81 to 1.1 servings, respectively. Evaluation indicated that cookbooks, food co-ops, and workshops were preferred methods for learning about increasing fruit and vegetable intake. Collaboration with the church's Nurses' Unit facilitated tailoring a nutrition program to the church membership and networking with other churches.

Bell, T. S., Branston, L. K., Newcombe, R. G., and Barton, G. R. (1999). Interventions to improve uptake of breast screening in inner city Cardiff general practices with ethnic minority lists. *Ethnicity & Health, 4*(4), 277-284.
OBJECTIVE: To increase the uptake of breast screening in three inner city GP practices with a high proportion of ethnic minority patients. SETTING: The study was carried out in May and June 1997 in the South East Wales division of Breast Test Wales (BTW). Three inner city general practices in Cardiff, with a low uptake in the previous round of breast screening and a high proportion of ethnic minority women on their lists, were targeted to receive interventions to increase uptake. This preliminary study was not randomized but sought to offer insights into the interventions that may be worth pursuing and the groups that are harder to reach. DESIGN: Interventions: identification of ethnic language groups; GP endorsement letter; translated literature including: multilingual leaflet, GP letter, screening invitation; transport to the screening center; language support. RESULTS: Of 369 women invited, 187 attended for screening. This gives an uptake of 50.7% compared with an uptake of 35.2% in the previous screening round, a statistically significant increase of 15.5%. (95% CI + 8.2% to + 22.5%). CONCLUSION: Findings show that translated literature, GP endorsement letter and language support by linkworkers were beneficial. The provision of free transport was ineffective and under-utilized. Uptake was highest amongst Urdu and Gujarati speaking groups and lowest for Bengali and Somali speakers that are hardest to reach. There is scope for improving the attendance rate amongst ethnic minority groups but this can prove costly.

Blackford, J., and Street, A. (1999). Problem-based learning: an educational strategy to support nurses working in a multicultural community. *Nurse Education Today, 19*(5), 364-372.
Physical dislocation of people from their homelands either as refugees, immigrants or exiles has resulted in the creation of multicultural communities that have diverse health needs. Like elsewhere, nurses in Australia have been faced with the challenge of responding to an ever-changing migrant population. A modified problem-based learning project was conducted in Melbourne to assist nurses to enhance their practice of caring for children and families of non-English speaking backgrounds (NESB). Clinical nurses worked with the researchers to develop and trial problem-based educational packages. The packages were designed for use in the clinical areas and graduate nursing programs to assist nurses overcome the cultural and communication difficulties they experienced when caring for people of NESB.

Brown, S. A., and Hanis, C. L. (1999). Culturally competent diabetes education for Mexican Americans: the Starr County study. *Diabetes Educator, 25*(2), 226-236.
PURPOSE: Few culturally competent health programs have been designed for Mexican Americans, a group that bears a disproportionate burden of Type 2 diabetes. In Starr County, a Texas-Mexico border community, investigators designed and tested a culturally competent intervention aimed at improving the health of this target population. The purpose of this article is to describe the development process of this diabetes education and support group intervention. METHODS: The development stages were (1) community assessment, (2) intervention design, (3) selection or development of outcomes, (4) pilot testing, and (5) a randomized clinical investigation. RESULTS: Focus group participants identified knowledge deficits regarding diabetes and self-management strategies, and suggested characteristics of an effective intervention for Mexican Americans. Outcome measures included metabolic control indicators, a newly developed knowledge instrument, and an existing health belief instrument. Preliminary analyses indicated that the intervention was successful in significantly improving metabolic control in the target population. CONCLUSIONS: Developing successful diabetes interventions for minority groups requires a number of stages, careful planning, assessment of cultural characteristics of the target population, and a systematic approach to implementation.

Chen, M. S., Zaharlick, A., Kuun, P., Li, W. L., and Guthrie, R. (1992). Implementation of the indigenous model for health education programming among Asian minorities: beyond theory and into practice. *Journal of Health Education, 23*(7), 400-403.
This article describes the setting for the first Office of Minority Health funded Minority Community Health Demonstration Grant Project targeted toward the Southeast Asian minorities of Cambodians, Laotians, and Vietnamese, explains how the theoretical basis of the Indigenous Model was implemented, and offers lessons learned and suggestions for future minority health programs. Three examples of how the Indigenous Model was applied, in some instances, in unanticipated ways are discussed. Lessons related to implementing the Indigenous Model for minorities are suggested.

Cooper, L. A. (2001). *The BRIDGE (Blacks Receiving Interventions for Depression and Gaining Empowerment) study*. Baltimore, MD: Johns Hopkins Medical Institutions, Welch Center for Prevention, Epidemiology, & Clinical Research.
Several studies document underutilization of outpatient specialty mental health services by African Americans. However, African Americans with depression are just as likely as whites to receive care in primary care settings. Despite their use of primary care services, African American patients are less likely than whites to be recognized as depressed, offered pharmacotherapy, and to initiate or complete pharmacotherapy or psychotherapy for depression. African American patients express stronger preferences for counseling and more negative attitudes toward antidepressant medication, the most common form of treatment of depression used by primary care physicians. African Americans are also more likely to see depression and its treatment through a spiritual or religious framework. Studies show that African Americans receive less optimal technical and interpersonal health care than whites for many conditions. Depression is a common chronic condition that results in substantial morbidity, functional disability, and resource use. Despite the proven efficacy of pharmacotherapy and psychotherapy for treatment of depression, the gap between research findings and clinical practice is wide for management of depression in primary care. Recent intervention work has shown that quality improvement strategies for depression in primary care are effective. Research also shows that cultural adaptations can improve adherence and retention in care for ethnic minority patients. We have created a cultural adaptation that includes many of the components of recent successful quality improvement interventions for depression in primary care. The proposed study uses a patient-centered, culturally tailored, education and activation intervention with active follow-up by a depression case manager.
It also includes academic detailing and structured mental health consultation tailored to physicians' needs and emphasizes cultural competence to improve care for African American primary care patients with major depressive disorder. Thirty physicians and 250 patients will be randomized to either usual care or the combined patient and physician intervention. The main hypothesis is that patients in the intervention group will have higher remission rates from depression, lower levels of depressive symptoms, and better functional status at 12 months than patients in the usual care group. We will also measure patient adherence to guideline concordant care and several process measures (patient and physician satisfaction with technical and interpersonal care, and depression care, patient and physician attitudes towards depression, and self-efficacy) in managing depression. This study will add to knowledge about how to effectively engage African American patients in care of depression and serve as a prototype of how to incorporate cultural sensitivity in programs to improve care for common conditions in ethnically diverse populations.

Davis, S. M., Lambert, L. C., Gomez, Y., and Skipper, B. (1995). Southwest Cardiovascular Curriculum Project: study findings for American Indian elementary students. *Journal of Health Education, 26*(2 Suppl), 72-81.
The Southwestern Cardiovascular Curriculum is a multidisciplinary school-based program to promote cardiovas-

cular health behavior change in fifth grade Navajo and Pueblo students. The curriculum was implemented at 11 elementary schools located on or near American Indian reservations in rural New Mexico. The five-year program was designed to be culturally relevant to rural American Indian children in the southwest, incorporating Native American traditions and values into lessons and activities. Participating schools were randomly assigned to curriculum or control conditions. Students in the curriculum group showed significant increases in knowledge when compared with controls for both Navajos and Pueblos. A higher proportion of students in the curriculum group reported a decrease in the frequency of salt use at the table and butter on bread or tortillas. Of students who had tried smoking at baseline, boys and Pueblo students in the curriculum group reported decreasing their smoking habits more than controls. Similarly, boys and Navajo students who had tried smokeless tobacco at baseline, and received the curriculum, reported using less smokeless tobacco at the post-test than controls. In the curriculum group, 70 percent of students reported increasing the amount they exercised since baseline. These results indicate that culturally appropriate school-based programs can help promote behavior changes that lead to healthy lifestyles in American Indian children.

Dignan, M. B., Michielutte, R., Wells, H. B., Sharp, P., Blinson, K., Case, L. D., Bell, R., Konen, J., Davis, S., and McQuellon, R. P. (1998). Health education to increase screening for cervical cancer among Lumbee Indian women in North Carolina. *Health Education Research, 13*(4), 545-556.

Although age-adjusted mortality rates from cancer among Native-Americans are generally lower than for the US population as a whole, cervical cancer mortality rates are higher. This report presents results from a National Cancer Institute-funded health education program conducted among the Lumbee tribe in North Carolina that was designed to increase the proportion of women, age 18 and older, who receive Pap smears to screen for cervical cancer. The Solomon Four Group research design was used for this project. Participants were selected at random from the enrollment records of the Lumbee tribe and data collection was carried out during face-to-face interviews. The health education program was provided one-on-one in women's homes by a trained lay health educator and included verbal, print and videotape information. A total of 979 women were enrolled in the study, and 125 were lost to follow-up between the pre-test and post-test. Women who received the education program were found to be more likely to have knowledge of the Pap smear and to report a Pap smear in the past year at the post-test than those in the control group, regardless of whether they received the pre-test interview, $P < 0.05$. Women most likely to respond to the education program were also likely to have reported that they receive an annual physical examination. Women with better knowledge of the Pap smear tended to have more education, higher income and greater identification with Native-American culture than those with less knowledge. We conclude that the health education program was associated with greater knowledge about cervical cancer prevention and higher proportions of Lumbee women obtaining Pap smears in the past year.

Duffy, S. A., Bonino, K., Gallup, L., and Pontseele, R. (1994). Community baby shower as a transcultural nursing intervention. *Journal of Transcultural Nursing, 5*(2), 38-41.

A community assessment was conducted by nursing students to determine the educational needs of Native American women whose infants were at risk for infant mortality. As a result, a culturally-based community baby shower that incorporated health education was provided for the women and their infants. Games, prizes, and lunch were provided for the mothers upon completion of educational newborn care, immunizations, and infant safety learning activities. The intervention project based upon maintaining a Native American cultural theme was used with cake, favors, prizes, invitations, and advertisements. In addition, a recognized Native American spiritual leader was invited to begin the shower with a traditional blessing. Multiple community resources such as businesses, stores (including drug), churches, hospitals, a local nursing home, and several private individuals also contributed time, money, and baby care items for the shower. From the advertising, many women expressed interest in attending the baby shower than could be accommodated. Press releases provided exposure for the school of nursing, contributors, participants, and many members of the Native American community. A pre- and post-test survey indicated that by the end of the baby shower, all ten key Native American women participants were able to demonstrate the use of the information taught by the nursing students. The baby shower enhanced the Native American mothers' self confidence and provided them with culturally sensitive care. The welcoming atmosphere created by the students for the Native Americans was also important to the success of the project.

Edwards, N., Ciliska, D., Halbert, T., and Pond, M. (1992). Health promotion and health advocacy for and by immigrants enrolled in English as a Second Language classes. *Canadian Journal of Public Health. Revue Canadienne de Sante Publique, 83*(2), 159-162.

An intersectoral immigrant health promotion project in Hamilton, Ontario is described. The project goal was to facilitate the entry of new immigrants to the Ontario health care system and equip them with knowledge and skills to strengthen their preventive and promotive health practices. A needs assessment preceded project development. The three phases of the project are described. The first phase commenced with the development of culturally sensitive health promotion resource materials to be used with immigrants enrolled in English as a Second Language classes. In phase two, activities focused on strengthening the ability of ESL teachers to incorporate a preventive and promotive health focus in their classes. The final phase shifted to a community-based project. During this phase, a core immigrant group developed their skills as health advocates for their immigrant community.

Erwin, D. O., Spatz, T. S., Stotts, R. C., and Hollenberg, J. A. (1999). Increasing mammography practice by African American women. *Cancer Practice, 7*(2), 78-85.

PURPOSE: This study examines the effectiveness of the Witness Project, a culturally competent cancer education program that trains cancer survivors to promote early detection and increased breast self-examination and mammography in a popula-

tion of rural, underserved, and African American women. DESCRIPTION OF STUDY: The primary setting for the Witness Project-an intensive, community-based, culturally sensitive educational program that incorporates spirituality and faith-was the African American church. Baseline and six-month follow-up surveys were obtained from 206 African American women in two intervention counties and from 204 African American women in two control counties in the rural Mississippi River Delta region of Arkansas. RESULTS: Witness Project participants significantly increased (P <.0001) their practice of breast self-examination and mammography (P <.005) compared with the women in the control counties. CLINICAL IMPLICATIONS: These results demonstrate that intensive, community-based, culturally sensitive educational programming incorporating the spiritual environment of the faith community, such as the Witness Project, can positively influence breast cancer screening behaviors among rural, underserved African American women. Through the use of community churches and cancer survivors, breast cancer screening activities can be improved in this population.

Erwin, D. O., Spatz, T. S., Stotts, R. C., Hollenberg, J. A., and Deloney, L. A. (1996). Increasing mammography and breast self-examination in African American women using the Witness Project model. *Journal of Cancer Education, 11*(4), 210-215.

BACKGROUND: The five-year survival rate for African American women with breast cancer is notably lower than the rate for white women; thus, appropriate cancer education and screening efforts are needed to increase mammography and breast self-examination practices by African American women. METHODS: The Witness Project is a theory-based intervention designed to provide culturally sensitive messages, from African American breast cancer survivors, in churches and community organizations. These messages emphasize the importance of early detection to improve survival. RESULTS: Intervention research in eastern Arkansas with 204 African American women demonstrated a significant increase in the practice of breast self-examination ($p < 0.001$) and mammography ($p < 0.001$) after participation in the Witness Project. There was no significant difference between the pre- and postintervention scores for scaled items for the health-belief model and locus of control. CONCLUSIONS: Results demonstrate that culturally appropriate cancer education programs are able to change behavior by meeting the beliefs of participants rather than attempting to change their beliefs.

Ferguson, S. L. (1996). *Evaluation of the effects of peer counseling in a culturally-specific adolescent pregnancy prevention program for African American females.* Unpublished Ph.D. Dissertation, University of Virginia, Charlottesville.

This study determined the effects of peer counseling in a culturally-specific pregnancy prevention program for African American females. Social learning theory was used as the theoretical framework. The study took place in Charlottesville, Virginia. A random pretest and multiple posttest comparison group design was used to obtain data on a total sample size of 63 African-American adolescent females, ages 12-16, who lived in four local public housing developments. Descriptive data and tests of significance were calculated to evaluate the effectiveness of the intervention of peer counseling on preventing pregnancy, delaying sexual intercourse, increasing knowledge related to reproduction, sexually-transmitted diseases, and contraceptives and using effective contraceptives if sexually-active. A total of 52 females remained in the study at the three-month posttest. None of the participants who received the intervention of peer counseling became pregnant within three months of the intervention. Likewise, none of the comparison group participants became pregnant during the study. There was no delay in sexual intercourse for the sexually-experienced participants in the experimental group or in the comparison group. However, the majority of sexually-experienced participants in the experimental group reported having no sexual intercourse within the last four weeks at both pretest and three-month posttest. Findings further revealed that a statistically significant increase in knowledge of reproduction, sexually-transmitted diseases, and contraceptives occurred within the experimental group when comparing their pretest and eight-week posttest scores. Their average knowledge scores remained the same when comparing eight-week posttest and three-month posttest scores. The comparison group participants improved their knowledge scores significantly based on eight-week and three-month posttest scores. Finally, there was not a statistically significant difference between the sexually-experienced participants in the experimental and comparison groups in their use of effective methods of contraception. Recommendations for nursing include: (a) nurses should be culturally competent when planning and evaluating community-based adolescent pregnancy prevention programs for adolescents from culturally and ethnically diverse populations; and (b) nurses should continue to train peer counselors to be involved in adolescent pregnancy prevention programs.

Flaskerud, J. H., Nyamathi, A., and Uman, G. (1997). Longitudinal effects of an HIV testing and counseling program for low-income Latina women. *Ethnicity & Health, 2*(1-2), 89-103.

OBJECTIVES: The purpose of this study was to assess the effects of an HIV antibody testing, counseling and education program on the knowledge and practices of low-income Los Angeles Latina women. METHODS: The study design was prospective and longitudinal involving pre-test, post-test and retest measures over a 2-year period. The study employed an experimental group and a comparison group that did not receive the intervention. The study group was comprised of a convenience sample of 508 low-income Latina women who were recruited from the Public Health Service nutrition program for women, infants and children (WIC). The comparison group ($n = 51$) was recruited from the same setting. A battery of instruments was selected to measure HIV knowledge and practices, the social support received, self-esteem, the level of acculturation and sociodemographic characteristics. The instruments were administered at pre-test, 2 weeks post-test and 1 year retest. The HIV antibody serostatus was assessed at pre-test and retest. An intervention protocol based on cultural competence, women as traditional health care givers and the major transmission categories was provided after the pre-test and was reinforced post-test. Finally, qualitative data were collected from the focus group participants ($n = 55$) to evaluate the intervention protocol. RESULTS: The participants in the study made significant improvements in HIV knowledge and reported condom use practices from pre-test to post-test that were retained on retest. The comparison

group subjects did not make significant pre-test-post-test improvements on these measures. CONCLUSIONS: It should be noted that the changes in practices made by the study group did not necessarily reduce their risk of HIV infection or transmission and were not related to the demonstrated knowledge and skills improvement. Of special significance to program planners, educators and researchers, both the quantitative and qualitative data revealed problem areas with the intervention protocol related to cultural norms and the possible fragmentation of information based on the behavioral transmission categories.

Flaskerud, J. H., and Nyamathi, A. M. (1990). Effects of an AIDS education program on the knowledge, attitudes and practices of low income black and Latina women. *Journal of Community Health, 15*(6), 343-355.

The purpose of this study was to test the effects of an AIDS education program on the knowledge, attitudes and practices of low income black and Latina women. A pretest-posttest nonequivalent control group design was used with a 2-3 month retest of the experimental group. The sample consisted of 506 experimental and 206 control group women who were clients of the Public Health Foundation's Nutrition Program for Women, Infants and Children in Los Angeles County. The program included a slide-tape presentation, and educational and resource brochures in English and Spanish. Knowledge, attitudes, and sexual and drug use practices were measured using a structured questionnaire that was developed in English and Spanish. Content validity and reliability of the questionnaire were established. A two-way repeated measures ANOVA examined differences in pretest-posttest knowledge, attitudes, and practices for experimental and control groups and for both racial/ethnic groups. The experimental group made significant gains over the control group on pretest-posttest measures of knowledge and attitudes. Both experimental and control groups made significant changes in practice. Changes in knowledge were retained on retest; changes in practices came close to significance on retest. Blacks and Latinas differed on pretest knowledge and attitudes but not practices. Blacks had more knowledge and positive attitudes on pretest. However, posttest improvements for both knowledge and attitudes were greater in Latinas than in blacks. A multiple regression analysis revealed that the best predictors of knowledge, attitudes and practices were racial/ethnic group, education, and religion. It is concluded that a didactic audio visual program can positively affect the knowledge and possibly the practices of participants and that these are retained over time but that changes in attitudes will take further efforts.

Gilliland, S. S., Carter, J. S., Perez, G. E., Two Feathers, J., Kenui, C. K., and Mau, M. K. (1998). Recommendations for development and adaptation of culturally competent community health interventions in minority populations with type 2 diabetes mellitus. *Diabetes Spectrum, 11*(3), 183-184.

The experience from the Native American Diabetes Project and the Native Hawaiian Diabetes Intervention Program illustrates the intervention development and adaptation process in two minority populations. The recommendations presented may be useful to health practitioners and researchers interested in developing or adapting culturally competent diabetes interventions for minority populations affected with diabetes.

Griffin, J. A., Gilliland, S. S., Perez, G., Helitzer, D., and Carter, J. S. (1999). Participant satisfaction with a culturally appropriate diabetes education program: the Native American diabetes project. *Diabetes Educator, 25*(3), 351-363.

PURPOSE: The purpose of this paper is to report on participant satisfaction with the Native American Diabetes Project diabetes education program. METHODS: A questionnaire was designed to measure satisfaction among participants in the diabetes education program, which consisted of five sessions designed according to the Transtheoretical Model of Change and Social Action Theory with input from community members. Eight pueblo communities participated in the program. Sessions were taught by community mentors in three sites in New Mexico. One site taught sessions in a one-on-one format, and two sites taught sessions in a group format. RESULTS: The results showed that participant satisfaction did not vary based on session delivery type or by session site. Overall, participants responded positively to sessions designed according to Social Action Theory and with cultural competency. Retention rates for the sessions were 81% for group sessions and 91% for one-on-one sessions. CONCLUSIONS: Using a strong theoretical framework and community input to design diabetes education sessions may be important factors in participant satisfaction and retention in diabetes lifestyle education sessions.

Hartweg, D. L., and Berbiglia, V. A. (1996). Determining the adequacy of a Health Promotion Self-Care Interview Guide with healthy, middle-aged, Mexican American women: a pilot study. *Health Care for Women International, 17*(1), 57-68.

The Hispanic/Latino population is the second largest and fastest growing minority in the United States, with Mexican Americans comprising 60.4% of the total. Existing research instruments and procedures must be made culturally specific, both theoretically and empirically, for use with this population. Our purpose in the present study was to determine whether one part of the Health Promotion Self-Care Interview Guide (HPSCIG), developed to identify self-care actions that promote well-being in healthy, middle-aged Anglo American and African American women (Hartweg, 1991, 1993), was culturally sensitive for use with Mexican American women. This was a necessary step before the full HPSCIG was translated into Spanish for a larger bilingual study. Twenty Mexican American women identified 232 self-care actions they took to promote well-being as they defined it. More than 81% of the self-care actions were performed to meet the universal self-care requisites, 11% were performed to meet the developmental requisites of middle-age, and 2% were performed to meet health deviation self-care requisites. Six percent of the actions could not be classified using the theoretical coding scheme. Inherent in the study were questions about the congruence and relevance of self-care as a concept in this population. The findings support the use of the HPSCIG with healthy, middle-aged Mexican American women.

Jackson, J., Kennedy, B. L., Mandel, D., Carlson, M., Cherry, B. J., Fanchiang, S. P., Ding, L., Zemke, R., Azen, S. P., Labree, L., and Clark, F. (2000). Derivation and pilot assessment of a health promotion program for Mandarin-speaking Chinese older adults. ***International Journal of Aging & Human Development, 50*****(2), 127-149.**

As the percentage of older adults of diverse ethnicities increases in the United States, the call for culturally sensitive health care service strategies that target the special needs of older people grows. The present report describes methods used to adapt a health care program so that it would better meet the needs of a group of well, older Mandarin-speaking Chinese residents of Los Angeles. The specific qualitative research procedures that we used to adapt the treatment program are described, along with the particular adaptations that emerged. Additionally, outcomes from a randomized pilot experiment are presented that are consistent with the notion that the adapted program was effective in reducing health-related declines among older Mandarin-speaking men and women. The overall outcome of this project is in agreement with other reports in the health care literature that address the importance of providing culturally sensitive health care service for elders.

Litrownik, A. J., Elder, J. P., Campbell, N. R., Ayala, G. X., Slymen, D. J., Parra-Medina, D., Zavala, F. B., and Lovato, C. Y. (2000). Evaluation of a tobacco and alcohol use prevention program for Hispanic migrant adolescents: promoting the protective factor of parent-child communication. ***Preventive Medicine, 31*****(2 Pt 1), 124-133.**

BACKGROUND: Interventions designed to prevent tobacco and alcohol use targeting high-risk adolescents are limited. In addition, few studies have attempted to improve parent-child communication skills as a way of improving and maintaining healthy youth decision-making. METHODS: A total of 660 Hispanic migrant families participated in a randomized pre-post control group study that was utilized to determine the impact of the intervention on parent-child communication. Both treatment and attention-control groups of youth were exposed to an eight-session culturally sensitive program presented by bilingual/bicultural college students. Parents jointly attended three of the eight sessions and participated in helping their child complete homework assignments supporting the content of each session. The content of the treatment intervention included (1) information about tobacco and alcohol effects, (2) social skills training (i.e., refusal skills), and (3) the specific development of parent-child communication skills to support healthy youth decisions. RESULTS: Significant intervention by household size interactions for both parent and youth perceptions of communication were found indicating that the treatment was effective in increasing communication in families with fewer children. Based on the effect size and the previously established relationship between communication and susceptibility to tobacco and alcohol use, it was determined that the intervention effect could be translated into a future 5 to 10% decrease in susceptibility for these smaller families. CONCLUSIONS: A culturally sensitive family-based intervention for migrant Hispanic youth was found to be effective in increasing perceived parent-child communication in families with fewer children. It is expected that increases in this important protective factor will lead to later observed decreases in tobacco and alcohol use.

Marin, G., Marin, B. V., Perez-Stable, E. J., Sabogal, F., and Otero-Sabogal, R. (1990). Changes in information as a function of a culturally appropriate smoking cessation community intervention for Hispanics. ***American Journal of Community Psychology, 18*****(6).**

This study tested a seven-month, media-based, community intervention among Hispanics in San Francisco designed to change levels of information on the damaging effects of cigarette smoking and on the availability of culturally appropriate cessation services. Three community-wide surveys of Hispanics were conducted with independent random samples, two as baselines (n = 1,660 and 2,053) and one postintervention (n = 1,965). Results showed that changes in the level of awareness of cessation services had taken place after implementation of the intervention. Furthermore, those changes took place primarily among the less acculturated Spanish-speaking Hispanics who were the target of the intervention. The changes in information reported here demonstrate that a culturally appropriate information dissemination campaign that utilizes multiple channels can produce changes in a community's level of information even when the campaign is implemented for a relatively short period.

Marin, G., and Perez-Stable, E. J. (1995). Effectiveness of disseminating culturally appropriate smoking-cessation information: Programa Latino Para Dejar de Fumar. ***Journal of the National Cancer Institute*** **18, 155-163.**

BACKGROUND: The need for a culturally appropriate smoking-cessation intervention for Latinos is based on data on current patterns of tobacco use, possible targeting by the tobacco industry, and the lack of smoking-cessation interventions that are appropriate to the cultural characteristics of Latino smokers. PURPOSE: Our goal was to evaluate the effectiveness of the Programa Latino Para Dejar de Fumar (PLDF) in disseminating smoking-cessation information in San Francisco's Latino community. METHODS: Annual cross-sectional telephone surveys were conducted from 1986 to 1993 of Latino adults, 18-65 years of age, living in census tracts with at least 10% Latinos. Surveys in 1986 and 1987 formed the base line for comparison of PLDF effects. RESULTS: Awareness of a Hispanic smoking-cessation program (odds ratio [OR] = 1.11; 95% confidence interval [CI] = 1.09-1.14), awareness of PLDF specifically (OR = 1.14; 95% CI = 1.10-1.17), awareness of available printed information to help smokers quit (OR = 1.09; 95% CI = 1.06-1.12), and having a copy of the Guia Para Dejar de Fumar (OR = 1.09; 95% CI = 1.05-1.14) were significantly associated with year of survey. In addition, those same variables were significantly associated with a lower acculturation score (respective ORs = 3.95, and 95% CI = 3.57-4.37; OR = 5.40, and 95% CI = 4.86-6.01; OR = 0.63, and 95% CI = 0.58-0.69; and OR = 4.54, and 95% CI = 3.89-5.30). Women were more likely than men to report awareness of a Hispanic smoking-cessation program (OR = 0.88; 95% CI = 0.81-0.96), awareness of PLDF (OR = 0.84; 95% CI = 0.77-0.92), and awareness of available printed information (OR = 0.78; 95% CI = 0.72-0.85). Cigarette-smoking prevalence decreased from 1986 through 1990, stabilized in 1991, and appeared to increase among all groups in 1993. Prevalence of smoking cessation remained stable overall, but it showed a steady increase among less acculturated respondents. CONCLUSION: We conclude that a culturally appropriate community intervention to promote nonsmoking can be successful

at disseminating information about smoking cessation. Latino community norms about smoking are evolving, leading to decreased social acceptability.

Mattson, S., and Lew, L. (1992). Culturally sensitive prenatal care for Southeast Asians. *Journal of Obstetric, Gynecologic, & Neonatal Nursing, 21*(1), 48-54.
OBJECTIVE: To evaluate the success of the Southeast Asian Health Project in terms of client satisfaction with the prenatal care and other services. To obtain additional data about Southeast Asian women's health practices regarding childbearing. DESIGN: Survey through questionnaires administered as interviews. SETTING: In clients' homes or via telephone. PARTICIPANTS: 119 women from SEAHP's case files of recently delivered clients. MEASUREMENTS AND MAIN RESULTS: Interviews were conducted by four community workers fluent in Cambodian or Lao. The majority of women were satisfied with SEAHP, particularly the interpretation and education in native languages. Women were also satisfied with SEAHP, encouraging others to seek care. CONCLUSIONS: SEAHP appears to meet prenatal care needs of Southeast Asian women in Long Beach, California. More objective outcome data await analyses, but the program's approach may ensure access to and use of health services.

McAvoy, B. R., and Raza, R. (1991). Can health education increase uptake of cervical smear testing among Asian women? *British Medical Journal, 302*(6780), 833-836.
OBJECTIVES: To determine the effects of three different methods of providing health education on the uptake of cervical smear testing among Asian women, and to evaluate the acceptability of different health education materials. DESIGN: Prospective cohort study over one year of effects of written materials by post, personal visit to give written materials, and personal visit to show a video on the uptake of smear testing. Techniques included a personally administered questionnaire. SETTING: Leicester, a city with a large Asian population. SUBJECTS: 737 randomly selected Asian women aged 18 to 52 who were not recorded on the central cytology laboratory's computer as ever having had a cervical smear test. 159 declined to participate or were not contactable. INTERVENTIONS: Women were randomized into four groups: visited and shown a video (263), visited and shown a leaflet and fact sheet (219), posted a leaflet and fact sheet (131), not contacted at all (124). MAIN OUTCOME MEASURES: Cervical smear test recorded on computer within four months after intervention. RESULTS: 57 (37%, 26% of group) of the women visited and given leaflets and 80 (47%, 30% of group) shown the video attended for cervical smears. Only six (5%) of those who were not contacted and 14 (11%) of those sent leaflets had a smear test during the study. CONCLUSION: Health education interventions increased the uptake of cervical cytology among Asian women in Leicester who had never been tested. Personal visits were most effective irrespective of the health education materials used, but there was some evidence that home viewed videos may be particularly effective in one of the most hard to reach groups: Urdu speaking, Pakistani Moslems. Written translated materials sent by post were ineffective.

McPhee, S. J., Bird, J. A., Davis, T., Ha, N. T., Jenkins, C. N., and Le, B. (1997). Suc khoe la vang: (health is gold:) Vietnamese Community Health Promotion Project, barriers to breast and cervical cancer screening among Vietnamese-American women. *American Journal of Preventive Medicine, 13*(3), 205-213.
INTRODUCTION: We investigated barriers to breast and cervical cancer screening among Vietnamese women in San Francisco and Sacramento, California. METHODS: Face-to-face interviews were conducted in 1992 of 306 Vietnamese women in San Francisco and of 339 women in Sacramento. RESULTS: In both communities, only about one half of Vietnamese women had ever had routine check-ups, clinical breast examinations, mammograms, and Pap smear tests, and only about one third were up-to-date for these screening examinations. Among women age 40 or older, 35% had never even contemplated having a mammogram. This study identified several significant barriers to recognition, receipt, and currency of screening tests. Negative predictors of test recognition included low level of education and not having a regular physician. Negative predictors of test receipt included low level of education, not having a regular physician, short duration of residence in the United States, and never having been married. A major negative predictor of test currency was low level of education. With a few exceptions, attitudes and beliefs generally were not important predictors. CONCLUSIONS: Health education and screening programs for early breast and cervical cancer detection among Vietnamese women must be culturally appropriate and conducted in the Vietnamese language. Special outreach efforts are needed to assist recent immigrants in obtaining recommended breast and cervical cancer screening examinations.

Miano, L. Y., Rojas, M. S., and Trujillo, M. (1996). "Platicas y Merienda": reaching Spanish-speaking patients in an oncology setting. *Cancer Practice: A Multidisciplinary Journal of Cancer Care, 4*(4), 199-203.
PURPOSE: The United States Hispanic population has tripled since the mid-1950s and is projected to be the largest growing segment of the population through the year 2000. The traditional support group model has not been effective in reaching this population. Healthcare professionals must become innovative to better understand and provide programs for Spanish-speaking cancer patients. DESCRIPTION OF PROJECT: At the M.D. Anderson Cancer Center, a group program titled "Platicas y Merienda" was developed that derived from several group modalities: education, social, and peer support. The program is coordinated and facilitated by Spanish-speaking social workers and uses other professionals within the institution as speakers to promote a multidisciplinary approach to providing support services. FINDINGS: Participants experienced an increased sense of social and emotional well-being, expanded their knowledge of health-related information, and became aware of other services and benefits available to them. CLINICAL IMPLICATIONS: During this time of change in the healthcare environment, innovation in clinical practice and program development is necessary to address the needs of the growing Hispanic population.

Michielutte, R., Sharp, P. C., Dignan, M. B., and Blinson, K. (1994). Cultural issues in the development of cancer control programs for American Indian populations. *Journal of Health Care for the Poor & Underserved, 5*(4), 280-296.
Cancer is the third-leading cause of death among American Indians. The persistent disadvantage in cancer survival rates among American Indian populations emphasizes the importance of developing effective cancer control programs for prevention and early detection. However, substantial cultural differences between American Indians and whites can affect the success of these programs. This paper examines the concept of cultural sensitivity in the context of developing cancer control programs for American Indian populations. It explores fundamental differences in beliefs, behaviors, and values between American Indian and white majority cultures, and presents examples of culturally sensitive health education programs. The paper highlights insights and experiences gained in developing the North Carolina Native American Cervical Cancer Prevention Project, and gives recommendations for the development of future programs.

Nevid, J. S., and Javier, R. A. (1997). Preliminary investigation of a culturally specific smoking cessation intervention for Hispanic smokers. *American Journal of Health Promotion, 11*(3), 198-207.
PURPOSE: The purpose of this study was to compare a culturally specific, multicomponent behavioral smoking cessation program for Hispanic smokers with a low-intensity, enhanced self-help control condition. DESIGN: Participants who completed pretreatment assessment were randomly assigned to treatment conditions. Smoking status was evaluated at posttreatment, six-month follow-up, and 12-month follow-up intervals. SETTING: The study was based in predominantly Hispanic neighborhoods in Queens, New York. PARTICIPANTS: Ninety-three Hispanic smokers participated: 48 men and 45 women. INTERVENTION: The multicomponent treatment involved a clinic-based group program that incorporated a culturally specific component consisting of videotaped presentations of culturally laden smoking-related vignettes. The self-help control program was enhanced by the use of an introductory group session and follow-up supportive telephone calls. MEASURES: Smoking outcomes were based on cotinine-validated abstinence and self-reported smoking rates. Predictors of abstinence were examined, including sociodemographic variables, smoking history, nicotine dependence, acculturation, partner interactions, reasons for quitting, self-efficacy, and linguistic competence. RESULTS: Significant group differences in cotinine-validated abstinence rates in favor of the multicomponent group were obtained, but only at posttreatment. With missing data included and coded for nonabstinence, validated abstinence rates at posttreatment were 21% for the multicomponent group and 6% for the self-help group. At the 6-month follow-up, the rates were 13% for the multicomponent group and 9% for the self-help group. By the 12-month follow-up the rates declined to 8% and 7% for the multicomponent and self-help groups, respectively. A dose-response relationship between attendance at group sessions and abstinence status was shown at posttreatment and six-month follow-up intervals. CONCLUSIONS: The results of the present study failed to show any long-term benefit from use of a clinic-based, culturally specific multicomponent smoking cessation intervention for Hispanic smokers relative to a minimal-contact, enhanced self-help control.

Shapiro, J., and Simonsen, D. (1994). Educational/support group for Latino families of children with Down syndrome. *Mental Retardation, 32*(6), 403-415.
Experiences and observations based on an ongoing parent education-support group for Mexican-origin Latino parents of children with Down syndrome were described. Culturally mediated concepts were discussed in terms of their relevance to specific aspects of group functioning, including group structure, membership, and leadership. Problems of particular concern to this population that might adversely affect maintenance and growth of the group were also examined. Finally, the potential value of such support groups for this parent population were considered as were guidelines for enhancing the group experience.

Shintani, T., Beckham, S., O'Connor, H. K., Hughes, C., and Sato, A. (1994). The Waianae Diet Program: a culturally sensitive, community-based obesity and clinical intervention program for the Native Hawaiian population. *Hawaii Medical Journal, 53*(5), 136-141.
The Waianae Diet Program (WDP) is a community-based program designed at the Waianae Coast Comprehensive Health Center in response to the high rates of obesity and chronic disease among Native Hawaiians. Its foundation is a three-week program of traditional Hawaiian diet and cultural teachings. It employs eight innovations in clinical nutrition and health promotion theory: 1. Non-calorie restricted weight loss protocol, 2. Dietary clinical intervention, 3. Cultural sensitivity, 4. Transition diet, 5. Whole-person approach, 6. Group ohana (family) support, 7. Community intervention, and 8. Role modeling. It has demonstrated significant weight loss with no calorie restriction, improvement in blood pressure, serum glucose, and serum lipids. It appears to have wide acceptance in the Hawaiian community. More studies are warranted to determine the long-term effect of this program.

Soto Mas, F. G., Kane, W. M., Going, S., Ford, E. S., Marshall, J. R., Staten, L. K., and Smith, J. E. (2000). Camine con Nosotros: connecting theory and practice for promoting physical activity among Hispanic women. *Health Promotion Practice, 1*(2), 178-187.
Despite the popularity and widespread use of theory in health education, practitioners still find it difficult to design and implement theory-based interventions. This is especially true when working with ethnic/racial minority groups, including Hispanic groups. Practitioners working with Hispanic communities face additional barriers that may often discourage them from using theories when planning interventions. These barriers include the diversity that exists within the Hispanic population, lack of reliable data, and issues related to cross-cultural applicability of current behavior theories. However, the use of theory constitutes a valuable tool for developing more effective programs, and theorist researchers should be more sensitive to practitioners' needs. By explaining the processes for selecting and applying theory in the same detail as outcome results, researchers will contribute to increasing practitioners' interest in theory. This article describes Camine con Nosotros, a theory-based physical

activity program for Hispanic women, and explains the process of selecting the theoretical framework of the program and connecting theory and practice.

Stevenson, H. C., Gay, K. M., and Josar, L. (1995). Culturally sensitive AIDS education and perceived AIDS risk knowledge: reaching the "know-it-all" teenager. *AIDS Education and Prevention, 7*(2), 134-144.
Video education is the most popular and effective medium for informing the adolescent population. This study investigated the impact of a culturally relevant HIV/AIDS video education. One hundred and ninety-four African-American teenagers were assigned to either a culturally sensitive or culturally dissimilar video education intervention. Results indicate that both interventions were effective in increasing AIDS knowledge scores. An interaction effect was found between levels of perceived AIDS risk knowledge and participation in the culturally sensitive intervention (CSV). Only the CSV intervention was effective with adolescents who claimed to "know a lot" about AIDS (e.g., "Know-It-All" subgroup). Students in both conditions who were worried about getting AIDS demonstrated higher AIDS risk knowledge at post-assessment. This study provides further evidence of within-ethnicity diversity among African-American youth and for developing culture- and subgroup-specific HIV/AIDS education.

Stillman, F. A., Bone, L. R., Rand, C., Levine, D. M., and Becker, D. M. (1993). Heart, body, and soul: a church-based smoking-cessation program for urban African Americans. *American Journal of Preventive Medicine, 22*(3), 335-349.
BACKGROUND: This article provides a descriptive overview of the implementation process of the Heart, Body, and Soul program. The program objective was to test strategies to reduce the prevalence of cigarette smoking among urban African Americans in East Baltimore. METHOD: This study constitutes a prospective randomized trial among inner-city African Americans designed to improve quit rates among church attenders. A random-digit-dialing survey was conducted to establish baseline levels of self-reported cigarette smoking, examine attendant attitudes, and determine the presence of known cardiovascular risk factors among community residents of the catchment area. A similar survey was conducted among churchgoers to establish a baseline. Twenty-two churches were recruited and randomly assigned to either intensive or minimal (self-help) intervention strategies. Baseline health screenings were held in all participating churches. Innovative culturally specific smoking cessation strategies mediated through lay volunteers from participating churches were implemented in the intensive intervention churches. RESULTS: Pastors of all churches were directly involved in all aspects of the planning and implementation process. A total of 29 volunteer lay smoking-cessation specialists were trained and successfully implemented the intensive interventions in churches. An additional 272 church members were trained to conduct their church's health screenings. CONCLUSION: The essential component of this successful implementation process were building trust and acceptance and providing the technical support to encourage smoking-cessation strategies. This description of the project is presented to assist others involved in church-based trials in urban African American communities.

Sung, J. F., Blumenthal, D. S., Coates, R. J., Williams, J. E., Alema-Mensah, E., and Liff, J. M. (1997). Effect of a cancer screening intervention conducted by lay health workers among inner-city women. *American Journal of Preventive Medicine, 13*(1), 51-57.
INTRODUCTION: We conducted a randomized controlled trial to determine if an in-home educational intervention conducted by lay health workers (LHWs) could increase adherence among low-income, inner-city, African-American women to breast and cervical cancer screening schedules. METHODS: We recruited 321 African-American women from diverse inner-city sources. After baseline interviews, they were randomly assigned to either the intervention (n = 163) or the control (n = 158) group. Those in the intervention group were visited in their homes up to three times by LHWs who provided a culturally sensitive educational program that emphasized the need for screening. RESULTS: Ninety-three (93) women in the intervention group and 102 in the control group completed the postintervention interview. For Pap smears, the increase in screening was similar in both groups. For clinical breast exams (CBEs), however, there was a modest increase in the intervention group. The improvement was greatest for mammography, for which there was a 10% to 12% increase. Among women who were not on recommended schedules at baseline, the improvement was substantial and greater in the intervention group. CONCLUSIONS: LHWs' intervention appeared to improve the rate at which inner-city women obtained CBEs and mammograms, but had no effect on Pap smears. A high attrition rate weakened our ability to make conclusive statements about the exact impact of the intervention.

Wang, C. Y., and Abbott, L. J. (1998). Development of a community-based diabetes and hypertension preventive program. *Public Health Nursing, 15*(6), 406-414.
The purpose of this project was to develop rapport with a Chinese Community Association and then establish preventive diabetic and hypertension programs with the Chinese in Chinatown, Hawaii. Subjects were recruited from this Chinese Community Association. Two hundred Chinese responded to the invitation. Among these, 75 individuals had either Type 2 diabetes, hypertension or both. Thirty-six males and 39 females ranging in age from 51 years old to 96 years old (Mean = 71.76, SD = 9.58) participated. Surveys and educational programs were carried out in Chinese. Results were described in terms of quantitative measures (family support and health outcomes) and qualitative experiences (case studies). Eighty percent of participants had decreased their diastolic blood pressure from above 95 mmHg to below 90 mmHg and systolic blood pressure from above 155 mmHg to below 140 mmHg. Ninety-five (n = 71) percent of participants had maintained their glucose level within the 90 mg/dL to 150 mg/dL range with a mean reduction of 57.86 mg/dL in one year. The hardest thing for families was the glucose self-monitoring. Case studies suggested that open-minded active listening and persistence formed the basis for developing a culturally sensitive community-based self management program for chronic diseases. Collaboration among the community, public health nurses, and diabetes nurse educators facilitated the process of community education and health promotion.

Wright, A. L., Naylor, A., Wester, R., Bauer, M., and Sutcliffe, E. (1997). Using cultural knowledge in health promotion: breastfeeding among the Navajo. *Health Education & Behavior, 24*(5), 625-639.
Although many attempts have been made to promote breastfeeding in a variety of contexts, few programs have explicitly incorporated cultural beliefs in these efforts. This article describes a breastfeeding promotion program conducted on the Navajo reservation. This program was designed to be culturally appropriate. Background information regarding beliefs and factors affecting infant feeding practices in this setting is provided, followed by a description of the intervention. The intervention, which incorporated both social marketing and community participation techniques, consisted of three components: an intervention in the health care system, a community intervention, and an individual intervention. Based on medical records review of feeding practices of all the infants born the year before (n = 988) and the year after (n = 870) the intervention, the program was extremely successful. This combination of techniques, including qualitative and quantitative research into local definitions of the problem, collaboration with local institutions and individuals, reinforcement of traditional understandings about infant feeding, and institutional change in the health care system, is an effective way of facilitating behavioral change.

Yancey, A. K., Tanjasiri, S. P., Klein, M., and Tunder, J. (1995). Increased cancer screening behavior in women of color by culturally sensitive video exposure. *Preventive Medicine, 24*(2), 142-148.
BACKGROUND: Electronic media have demonstrated efficacy in increasing knowledge and promoting health-protective behavior among individuals at high risk for chronic disease. In "Stimulating Cancer Screening among Women of Color through Video" (A. K. Yancey and L. Walden, 1994, J Cancer Educ 9:46-52) the development of a cost-effective documentary format for culturally sensitive health education videos was described. These videos could not be independently evaluated within the cancer control program for which they were developed. METHODS: A quasi-experimental study design tested the hypothesis that exposure to these videos increases cervical cancer screening behavior among samples of women from two clinic populations of predominantly low-income African-Americans and Latinos in New York City and Los Angeles. A 1-week-on-1-week-off design was utilized, in which the videos were continuously displayed in designated waiting rooms during (intervention) weeks, with each facility serving as its own control during off weeks. RESULTS: The proportion of women seen as patients during the intervention weeks who subsequently obtained Pap smears was significantly higher than that of those seen during the control weeks at each site ($P < 0.05$). CONCLUSIONS: Culturally sensitive videos displayed in waiting rooms may be useful in health promotion efforts in communities of color. The similarity of results in both clinic sites suggests that Spanish-language tapes may be constructed to appeal to Latinos of different nationalities.

Family/Community Inclusion in Health Care Delivery

Amundson, M. J., and Trotter, C. M. (1991). Developing a network of mental health workers for Pacific Islands. *International Nursing Review, 38*(1), 14-18.
Community participation was central from the inception of this project and throughout the four phases. Participants were involved in trainee selection, curriculum development and modification and negotiation of clinical practicum and evaluation. Their contributions significantly influenced the content and process of the workshops on a daily basis. For the in situ training the indigenous trainers used a similar process of participation and planning, and adapted the workshops specifically to the island culture. Evaluation methods were similarly adapted to the specific communities. High success rate of returns resulted from the evaluators' careful sensitivity to the culture and the adaptation of the Western research process. The team involvement in the participant's transformation and self-reliance created a productive mutual experience.

Anonymous. (2000). A council of elders: creating a multi-voiced dialogue in a community of care. *Social Science & Medicine, 50*(6), 851-860.
In an era of 'medical care delivery systems', there is an increasing need for the patient's voice to be heard, for it to be invited, listened to, and taken seriously. This challenge is particularly evident in geriatrics education, a domain of clinical training in which educators and clinicians alike must struggle to overcome adverse attitudes towards the elderly ('ageism'). In this paper we introduce a 'Council of Elders' as an educational innovation in which we invited community elders to function as our 'Senior Faculty', to whom medical residents present their challenging and heartfelt dilemmas in caring for elder patients. In the conversations that ensue, the elders come to function not simply as teachers, but collaborators in a process in which doctors, researchers, and elders together create a community of resources, capable of identifying novel ways to overcome health-related difficulties which might not have been apparent to either group separately. Using the first meeting of the Council as an exemplar, we describe and discuss the special nature of such meetings and also the special preparations required to build a dialogic relationship between participants from very different worlds—different generations, different cultures (including the professional culture and the world of lived experience). Meetings with the council have become a required part of the primary care residency program—a very different kind of 'challenging case conference' in which moral dilemmas can be presented, discussed and reflected upon. It is not so much that elders give good advice in their responses—although they often do—as that they provide life world and value orientation as young residents gain

a better sense of the elder's experience and what matters most to them. This project has been particularly worthwhile in addressing the problem of ageism—a way to render visible stereotypes and adverse physician values, with implications for decision-making with the patient, not for the patient.

Chen, A. M., Wismer, B. A., Lew, R., Kang, S. H., Min, K., Moskowitz, J. M., and Tager, I. B. (1997). "Health is Strength": a research collaboration involving Korean Americans in Alameda County. *American Journal of Preventive Medicine, 16*(6 Suppl), 93-100.

INTRODUCTION: This is a preliminary report from a research collaboration between Asian Health Services (community health center); Koreans in Alameda County, California; and the University of California at Berkeley School of Public Health. This five-year Centers for Disease Control and Prevention project supports a collaborative community intervention to improve breast and cervical cancer screening behavior among Korean women. METHODS: A Korean Community Advisory Board and Korean-American staff were recruited, and community sensitive research (CSR) and participatory action research (PAR) principles were applied: (1) building community infrastructure for sustainable action, (2) cultural appropriateness, (3) assuring responsiveness to community needs, and (4) a prevention focus that would assist health care providers. We conducted a population-based telephone survey on 676 Korean adults (272 men and 404 women). RESULTS: The collaborative process yielded (1) a high response rate (79%), (2) baseline health information on Korean Americans, (3) broadening of the original research topic, (4) survey responses that will guide intervention design, (5) culturally competent strategies, and (6) expanded Korean-American Community capacity for local action. CONCLUSIONS: Research collaboration between universities, community-based organizations, and ethnic communities can yield high-quality research. CSR and PAR approaches help break through cultural barriers in otherwise "hard to reach" API sub-populations. Determinants of success include sharing common goals; trust, honesty, and integrity; shared decision making; mutual respect of each partner's expertise; cultural sensitivity and cultural competence; flexibility, good communication, and mutual learning; and continuity of partners. Actively engaging members of the study population in the research process builds community capacity, thus laying the foundation for future projects that improve health status.

Shapiro, J. (1999). Correlates of family-oriented physician communications. *Family Practice, 16*(3), 294-300.

BACKGROUND: Family orientation in patient care has long been one of the primary tenets of the practice of family medicine. Yet we know surprisingly little about how frequently family-oriented transactions occur in actual doctor-patient encounters, or about what other aspects of physician communication patterns might be associated with increased family orientation. The purpose of this study was to investigate both frequency and correlates of family orientation in a residency-based practice. METHODS: Sixty videotapes representing 38 second and third-year residents interviewing a range of multiethnic patients over a 2-year period at a community clinic were analyzed for evidence of family-oriented communications, as well as other interaction behaviors such as information exchange and partnership building. Inter-rater agreement was 78%. RESULTS: Asking for medical information, clarifying patient information, and giving medical information and explanations were the most common types of resident actions. Family orientation was much less common, but was more frequently observed than the eliciting of a patient-centered agenda or suggestion of a psychosocial intervention or referral. Family orientation was associated with longer interviews, non-interpreted interviews, more physician questions and clarifying behaviors, and greater tendency to elicit the patient's agenda. CONCLUSIONS: Findings of this investigation suggest that family orientation in the medical interview is enhanced by having more time and a shared language, as well as a generally probing, clarifying, patient-centered style on the part of the physician.

Speice, J., Harkness, J., Laneri, H., Frankel, R., Roter, D., Kornblith, A. B., Ahles, T., Winer, E., Fleishman, S., Luber, P., Zevon, M., McQuellon, R., Trief, P., Finkel, J., Spira, J., Greenberg, D., Rowland, J., and Holland, J. C. (2000). Involving family members in cancer care: focus group considerations of patients and oncological providers. *Psycho-Oncology, 9*(2), 101-112.

Family members are an integral part of a patient's cancer care from the moment the diagnosis is delivered to the conclusion of treatment. Family members bring with them a range of emotional reactions, interpersonal dynamics and expectations for the care the patient receives. This study is part of a multi-institutional project to continue to improve the process of cancer care. In this study, 19 focus groups (11 patient and 8 provider) were conducted concerning issues related to doctor-patient communication in eight cancer centers in the United States. The content of the conversations was analyzed and thematic categories emerged that highlight the various strengths and difficulties associated with family involvement. The focus groups' comments support the need for explicit conversations between professional caregivers, patients and their loved ones, in order to negotiate the expectations and needs of each team member. Implications for clinical practice and strategies for working with family members are offered.

Suarez, L., Ramirez, A., Villarreal, R., Marti, J., McAlister, A., Talavera, G., Trapido, E., and Perez-Stable, E. (2000). Social networks and cancer screening in four U.S. Hispanic groups. *American Journal of Preventive Medicine, 19*(1), 47-52.
BACKGROUND: Evidence shows that social relationships play an important role in health and health behavior. We examined the relationship between social networks and cancer screening among four U.S. Hispanic groups. METHODS: We used telephone surveys to collect data in eight U.S. regions that have concentrations of diverse Hispanic-origin populations. We interviewed 8903 Hispanic adults, for a response rate of 83%; analysis was restricted to the 2383 women aged > or =40. As a measure of social integration, we formed a social network index from items on the number of close relatives and friends, frequency of contact, and church membership. We used logistic regression to estimate the effects of social integration on screening, adjusting for sociodemographic factors. RESULTS: Among Mexican, Cuban, and Central-American women, the effect of social integration on mammography screening was slight. The odds ratios (OR) per unit change in social integration category ranged from 1.16 to 1.22 with confidence intervals (CI) that overlapped with the null. For Pap smear screening, the effect was strongest among Mexican-American women (OR=1.44, 95% CI=1.21 to 1.72), but also evident among Central-American women (OR=1.22, 95% CI=0.72 to 2.06) and Cuban women (OR = 1.25, 95% CI = 0.81 to 1.93). Among Puerto Rican women, social integration had no effect on either mammography (OR=1.03) or Pap smear screening (OR=1.08). CONCLUSIONS: Independent of socioeconomic factors, social integration appears to influence cancer screening participation of Hispanic women. The modest effect is not universal across Hispanic groups and was stronger for Pap smear than for mammography screening behavior. Researchers should recognize Hispanic group differences in social network characteristics and the potential of social networks to change screening behavior.

Coordination of Conventional Medicine and Traditional Practices/Healers

Bhopal, R. S. (1986). The inter-relationship of folk, traditional and Western medicine within an Asian community in Britain. *Social Science & Medicine, 22*(1), 99-105.
A community-based interview study of Asians and a questionnaire study of health professionals were performed to ascertain the role of traditional medicine in the context of health care within the Asian community. Among Asians, knowledge of herbal remedies, the Asian healer and cultural concepts such as the 'hot/cold' theory was high. They frequently used culinary ingredients to treat common diseases such as abdominal discomfort, earache and toothache. The use of metal-based medications was rare, application of the 'hot/cold' concept was not of nutritional significance and Asian healers were infrequently consulted except during visits to India and Pakistan. Among health professionals awareness of Asian medicine was low. None had encountered morbidity resulting from its remedies while 50% felt that such remedies should be encouraged unless shown to be harmful. Traditional medicine was found to play a modest but not insignificant role within the context of total health care. There was little evidence that use comprises a significant health threat. Opportunities for further research and a prediction of the future of Asian medicine in Britain is presented.

Del Castillo, R. R. (1999). Effective management strategies when incorporating curanderismo into a mainstream mental health system. Unpublished Ph.D. Dissertation, University of Colorado at Denver, Graduate School of Public Affairs.
As America approaches the year 2000 and beyond, coupled with the challenges of a growing and diverse population, public administrators will be asked to do more with less. Congress will continue to grapple with the question of health and mental health care for all of its citizens; therefore, it is useful to include all relevant modalities of health and mental health care in the debate. Additionally, in order to ensure effectiveness and prudent expenditure of the public's dollars, as health and mental health care providers attempt to incorporate alternative methods of treatment into their health and mental health care systems, associated management strategies that accompany these innovations should also be analyzed. There is a paucity of literature regarding management problems and strategies associated with incorporating what is considered to be a nontraditional form of mental health treatment into mainstream systems. This research is exploratory in nature, utilizing the topical life history approach with both curanderas/os (indigenous healers) and public administrators and managers. These public servants were involved in the implementation of curanderismo, defined as the practice of spiritual folk medicine, generally used in Indian and Mexican-American communities as it was implemented in a publicly funded mental health system. This dissertation asks the question, what management strategies are effective when incorporating curanderismo into a publicly funded mental health system? The actual research demonstrates those strategies used by Southwest Denver Community Mental Health, a publicly funded mental health center, now consolidated under the Mental Health Corporation of Denver, as curanderismo was first introduced into the system, followed by a process of institutionalization. Analyzing the findings of this research through the eyes of organizational innovation, this research outlines management strategies that were effectively implemented and that eventually resulted in the institutionalization of curanderismo into the system, both as a treatment modality and as educational strategy. The findings of this research demonstrate that the incorporation of curanderismo into a mainstream mental health system was successfully accomplished. Some of the management strategies that were learned include the building of a solid infrastructure to support alternative mental health programming, the demonstration of effective leadership, a strong minority voice, the introduction of intermediaries who play key roles in the process of institutionalization and cultural competency.

Elder, N. C., Gillcrist, A., and Minz, R. (1997). Use of alternative health care by family practice patients. *Archives of Family Medicine, 6*(2), 181-184.
In recent years, the use of alternative medicine has become more acknowledged in the United States. Many different practices are encompassed by the terms alternative, unorthodox, or complementary medicine, and their use by the population is just now being defined. The number of established family practice patients also using alternative medicine is not yet known. To help answer this question, a survey of family practice patients concerning their use of alternative medicine was performed in 4 family practices in a large community in the western United States. Volunteers from the survey respondents attended a focus group to discuss more fully their use of alternative medicine. Questionnaires were completed by 113 family practice patients. Fifty percent (57/113) of patients had or were using some form of alternative medicine, but only 53% (30/57) had told their family physician about this use. No significant difference in the percentage who used alternative medicine or who told their physician about it was attributable to gender, educational level, age, race, or clinic attended. The main reason given for using alternative medicine, alone or in combination with care from a family physician, was a belief that it would work. Many of those who worked in combination with a family physician spoke of acceptance and control, but those who did not work with their physician mentioned traditional medicine's limitations and narrow-mindedness. Family physicians need to be aware that many of their patients may be using alternative health care. Open and nonjudgmental questioning of patients may help increase physician knowledge of this use and lead to improved patient care as physicians and patients work together toward health.

Foster, P. M. (1996). *Ritual healing an African-centered model of psychotherapeutic intervention based on Ndepp, Candomble, and urban Baptist ritual.* Unpublished Ph.D. Dissertation, Union Institute and University, Cincinnati.
This project demonstrating excellence is an original contribution to the newly emerging field of ethnopsychology and seeks to integrate key elements of traditional African healing with Western approaches to psychotherapeutic intervention. The model draws heavily from healing rituals and practices emanating from three African cultural and religious traditions: Ndepp (Rufisque, Senegal), Candomble (Bahia, Brazil) and afro-Baptist (U.S.A.). The model proposes five phases of intervention which are thematically and procedurally centered around therapeutic rituals: the Rite of Inclusion, the Rite of Expiation, the Rite of Immolation, the Rite of Transfiguration and the Rite of Passage. The five phases of intervention also involve the culturally competent use of techniques drawn from Western models of psychotherapy. The model expands on the group approach to intervention and requires the participation of (extended or reconstructed) family and community in the therapeutic process, and extends the meaning of "therapeutic use of self" in clinical practice. Drawbacks of the model include its focus on cultural practices that may be unfamiliar to Western consumers of therapeutic services, and the labor- and resource-intensive design. Strengths of the model include its experiential and ritual focus, cultural specificity and applicability to a clinically diverse client population.

Kahn, M. W., and Delk, J. L. (1973). Developing a community mental health clinic on the Papago Indian reservation. *International Journal of Social Psychiatry, 19*(3-4), 299-306.
This study describes the establishment of the first mental health facility serving the Papago Indian Tribe of Arizona. The success of the clinic was founded on several policies determined during planning: (a) communication with other agencies serving the Papagos was encouraged; (b) Papagos were employed as staff members when possible, and they were encouraged to develop professional skills; (c) Papago medicine men were used as paid consultants on cases involving traditional Papago beliefs; and (d) tribal approval and support were viewed as essential. These policies have resulted in general acceptance of the clinic and widespread use of its facilities. Demographic and symptomatic characteristics of 73 clients seen during the 1st 15 months of operation are presented.

Kim, C., and Kwok, Y. S. (1998). Navajo use of native healers. *Archives of Internal Medicine, 158*(20), 2245-2249.
BACKGROUND: Although the Indian Health Service provides extensive health care service to Navajo people, the role of native healers, or medicine men, has not been quantitatively described. OBJECTIVE: To determine the prevalence of native healer use, the reasons for use, cost of use, and the nature of any conflict with conventional medicine. METHODS: We conducted a cross-sectional interview of 300 Navajo patients seen consecutively in an ambulatory care clinic at a rural Indian Health Service hospital. RESULTS: Sixty-two percent of Navajo patients had used native healers and 39% used native healers on a regular basis; users were not distinguishable from nonusers by age, education, income, fluency in English, identification of a primary provider, or compliance, but Pentecostal patients used native healers less than patients of other faiths. Patients consulted native healers for common medical conditions such as arthritis, depression, and diabetes mellitus as well as "bad luck." Perceived conflict between native healer advice and medical provider advice was rare. Cost was the main barrier to seeking native healer care. CONCLUSIONS: Among the Navajo, use of native healers for medical conditions is common and is not related to age, sex, or income but is inversely correlated with the Pentecostal faith; use of healers overlaps with use of medical providers for common medical conditions. Patients are willing to discuss use of native healers and rarely perceive conflict between native healer and conventional medicine. This corroborates other research suggesting that alternative medicine is widely used by many cultural groups for common diseases.

Ma, G. X. (1999). Between two worlds: the use of traditional and Western health services by Chinese immigrants. *Journal of Community Health, 24*(6), 421-437.
This study examined the use of traditional and Western health services by Chinese immigrants, as well as the cultural and socioeconomic factors affecting health-seeking behaviors and health service utilization patterns among the study population from the perspectives of consumers and Chinese health care providers. Two instruments were used for data collection. The first, a consumer instrument, was designed for interviews of service recipients; the second, a health provider instrument, was designed to elicit information from traditional and Western pro-

viders. A few topics in the former instrument were cross-examined from the perspectives of health care providers. The investigation employed a combination of qualitative and quantitative research methods for data collection. Qualitative ethnographic methods used included: (1) participant-observation, (2) face-to-face interview, and (3) case study. To complement the qualitative data, structured quantitative survey were conducted with all selected informants. A total of 105 informants participated in the study: 75 Chinese consumers and 30 Chinese health professionals. The latter group was composed of Western physicians and traditional practitioners. Results revealed several patterns of health-seeking and service utilization behaviors among the Chinese of Houston and Los Angeles. These included high rates of self-treatment and home remedies (balanced diets and other alternative medicines); medium rates of utilization of integrated Western and traditional health services, including travel to country of origin for care; and low rates of exclusive utilization of Western or traditional Chinese treatments.

Marbella, A. M., Harris, M. C., Diehr, S., and Ignace, G. (1998). Use of Native American healers among Native American patients in an urban Native American health center. ***Archives of Family Medicine, 7*****(2), 182-185.**
To gain an understanding of the prevalence, utilization patterns, and practice implications of the use of Native American healers together with the use of physicians, we conducted semi-structured interviews at an urban Indian Health Service clinic in Milwaukee, Wisc, of a convenience sample of 150 patients at least 18 years old. The mean age of patients was 40 years, and the sex distribution was 68.7% women and 31.3% men. Thirty tribal affiliations were represented, the largest groups being Ojibwa (20.7%), Oneida (20.0%), Chippewa (11.3%), and Menominee (8.0%). We measured the number of patients seeing healers and gathered information on the types of healers, the ceremonies used for healing, the reasons for seeing healers, and whether patients discuss with their physicians their use of healers. We found that 38.0% of the patients see a healer, and of those who do not, 86.0% would consider seeing one in the future. Most patients report seeing a healer for spiritual reasons. The most frequently visited healers were herbalists, spiritual healers, and medicine men. Sweat lodge ceremonies, spiritual healing, and herbal remedies were the most common treatments. More than a third of the patients seeing healers received different advice from their physicians and healers. The patients rate their healer's advice higher than their physician's advice 61.4% of the time. Only 14.8% of the patients seeing healers tell their physician about their use. We conclude that physicians should be aware that their Native American patients may be using alternative forms of treatment, and they should open a respectful and culturally sensitive dialogue about this use with their patients.

Reissland, N., and Burghart, R. (1989). Active patients: the integration of modern and traditional obstetric practices in Nepal. ***Social Science & Medicine, 29*****(1), 43-52.**
This paper describes the integration of modern and traditional obstetric practices in a provincial hospital in the Maithili-speaking area of southern Nepal. The doctors and nurses consciously distance themselves from the traditional practices of their obstetrical patients, whom they view as 'ignorant'; but because hospital resources are insufficient to impose the normative form of modern medical organization, patients and their relatives assert a more active role in providing hospital-based care. In consequence, mothers are delivered according to modern, clinical as well as local cultural practices. Recent WHO policy has cast modern medicine as the agent in the integration of traditional healing within national health systems. This essay shows that in poor countries the powers of agency may not be exclusively in the hands of the medical profession. Patients, and others in their social networks, have become agents, constraining and negotiating the terms on which modern medicine is to be integrated within their traditional obstetric practices.

Skaer, T. L., Robison, L. M., Sclar, D. A., and Harding, G. H. (1996). Utilization of curanderos among foreign-born Mexican-American women attending migrant health clinics. ***Journal of Cultural Diversity, 3*****(2), 29-34.**
This study explores the parallel use of "folk healers" and modern medicine among foreign born, Mexican-American women attending migrant health clinics in rural, eastern Washington state. Face-to-face interviews (n = 434) revealed that 21.4% of the women had sought care from curanderos within the past five years. Statistically significant predictors of utilization included Spanish as the language of preference (odds ratio = 2.58), having resided in the U.S. from one to five years (odds ratio = 2.82), and having received medicine or medical care from Mexico within the prior five years (odds ratio = 9.22). Implications for providers working in cross-cultural settings are discussed.

Tabora, B. L., and Flaskerud, J. H. (1997). Mental health beliefs, practices, and knowledge of Chinese American immigrant women. ***Issues in Mental Health Nursing, 18*****(3), 173-189.**
The purpose of this study was to describe the mental health beliefs and practices of Chinese American immigrant women. A two-part design using both qualitative and quantitative techniques was employed. The first step utilized focus group (n = 14) and key informant (n = 2) interviews to discover the beliefs, practices, and knowledge about mental health of this population. Content analysis was used to examine and condense the qualitative data. After completion of the qualitative component, 72 women were recruited to complete a set of questionnaires, which included a demographic questionnaire, culture and work subscale, and the mental health portion of the Health Behavior Scale of the Survey of Chinese American Mental Health (NRCAAMH, 1993). Pearson product-moment correlations and regression analysis were used to analyze the quantitative data. Content analysis found that the cultural value placed on the avoidance of shame, pragmatism that results in the use of both Western and traditional Chinese practitioners and treatments, and the inadequacy of Western-type services to meet the needs of the Chinese American immigrant population act as barriers to utilization of these services. These results are cross-validated by the quantitative findings. The importance of culture in determining the pathway to care was supported by the finding that higher levels of acculturation are related to greater use of mental health services.

Zubek, E. M. (1994). Traditional Native healing: alternative or adjunct to modern medicine? *Canadian Family Physician, 40,* 1923-1931.
OBJECTIVE: To ascertain the extent to which family physicians in British Columbia agree with First Nations patients' using traditional Native medicines. DESIGN: Randomized cross-sectional survey. SETTING: Family medicine practices in British Columbia. PARTICIPANTS: A randomized volunteer sample of 79 physicians from the registry of the BC Chapter of the College of Family Physicians of Canada. Of 125 physicians contacted, 46 did not reply. MAIN OUTCOME MEASURES: Physicians' demographic variables and attitudes toward patients' use of traditional Native medicines. RESULTS: Respondents generally accepted the use of traditional Native medicines for health maintenance, palliative care, and the treatment of benign illness. More disagreement was found with its use for serious illnesses, both for outpatients and in hospital, and especially in intensive care. Many physicians had difficulty forming a definition of traditional Native medicine, and were unable to give an opinion on its health risks or benefits. A significant positive correlation appeared between agreement with the use of traditional Native medicines and physicians' current practice serving a large First Nations population, as well as with physicians' knowing more than five patients using traditional medicine. CONCLUSIONS: Cooperation between traditional Native and modern health care systems requires greater awareness of different healing strategies, governmental support, and research to determine views of Native patients and healers.

General

Brach, C., and Fraser, I. (2000). Can cultural competency reduce racial and ethnic disparities? a review and conceptual model. *Medical Care Research and Review, 57*(Supp 1), 181-217.
This article develops a conceptual model of cultural competency's potential to reduce racial and ethnic health disparities, using the cultural competency and disparities literature to lay the foundation for the model and inform assessments of its validity. The authors identify nine major cultural competency techniques: interpreter services, recruitment and retention policies, training, coordinating with traditional healers, use of community health workers, culturally competent health promotion, including family/community members, immersion into another culture, and administrative and organizational accommodations. The conceptual model shows how these techniques could theoretically improve the ability of health systems and their clinicians to deliver appropriate services to diverse populations, thereby improving outcomes and reducing disparities. The authors conclude that while there is substantial research evidence to suggest that cultural competency should in fact work, health systems have little evidence about which cultural competency techniques are effective and less evidence on when and how to implement them properly.

Cross, T. L., Bazron, B. J., Dennis, K. W., and Isaacs, M. R. (1989). *Towards a culturally competent system of care: a monograph on effective services for minority children who are severely emotionally disturbed*. Washington, DC: CASSP Technical Assistance Center, Georgetown University Child Development Center.
This monograph was developed in order to assist states and communities in addressing one of the primary goals of the Child and Adolescent Service System Program (CASSP) — that of appropriateness of care. The monograph provides a philosophical framework and practical ideas for improving service delivery to children of color who are severely emotionally disturbed. It defines cultural competence and puts forth the thesis that actions can be taken at the practitioner, agency, and system level which could greatly impact on improved services to minority children, youth, and families.

Language Assistance: Language Barriers, Bilingual Services and Oral Interpretation, and Translated Written Materials

Baker, D. W., Hayes, R., and Fortier, J. P. (1998). Interpreter use and satisfaction with interpersonal aspects of care for Spanish-speaking patients. *Medical Care, 36*(10), 1461-1470.
OBJECTIVES: Many patients have limited English proficiency and require an interpreter. The authors evaluated the effect of current interpreting practices on Spanish-speaking patients' satisfaction with the patient-provider relationship. METHODS: A cross-sectional survey was conducted of 457 patients seen in a public hospital emergency department. Measures were satisfaction with the provider's friendliness, respectfulness, concern, ability to make the patient comfortable, and time spent for the exam. RESULTS: A total of 237 patients communicated adequately with their provider without the use of an interpreter (group 1), 120 patients communicated through an interpreter (88% of whom were ad hoc interpreters; group 2), and 100 patients communicated directly with the provider but said an interpreter should have been called (group 3). Compared with patients in group 1, patients who communicated through an interpreter (group 2) rated their provider as less friendly, less respectful, less concerned for the patient as a person, and less likely to make the patient comfortable. Patients who said an interpreter should have been called (group 3) had the lowest satisfaction ratings; compared with group 2, they were less satisfied with their provider's friendliness, concern for the patient as a person, efforts to make

the patient comfortable, and amount of time spent. CONCLUSIONS: Patients who communicated through an interpreter or who did not have an interpreter when they thought one was necessary were less satisfied with the patient-provider relationship. Further efforts are needed to ensure interpreter availability and proper interpretation technique.

Baker, D. W., Parker, R. M., Williams, M. V., Coates, W. C., and Pitkin, K. (1996). Use and effectiveness of interpreters in an emergency department. *Journal of the American Medical Association, 275*(10), 783-788.

OBJECTIVE: To determine how often interpreters were used for Spanish- speaking patients, patients' perceived need for an interpreter, and the impact of interpreter use on patients' subjective and objective knowledge of their diagnosis and treatment. DESIGN: Cross-sectional survey. SETTING: Public hospital emergency department. PATIENTS: A total of 467 native Spanish-speaking and 63 English-speaking Latino patients presenting with nonurgent medical problems. MAIN OUTCOME MEASURES: Patients' report whether an interpreter was used, whether one was needed, self-perceived understanding of diagnosis and treatment, and objective knowledge of discharge instructions. RESULTS: An interpreter was used for 26% of Spanish-speaking patients. For 52%, an interpreter was not used but was not thought to be necessary by the patient. A total of 22% said an interpreter was not used but should have been used. When both the patient's English and the examiner's Spanish were poor, an interpreter was not called 34% of the time, and 87% of the patients who did not have an interpreter thought one should have been used. Nurses and physicians interpreted most frequently (49%), and professional interpreters were used for only 12% of patients. Patients who said an interpreter was not necessary rated their understanding of their disease as good to excellent 67% of the time, compared with 57% of those who used an interpreter and 38% of those who thought an interpreter should have been used (P<.001). For understanding of treatment, the figures were 86%, 82%, and 58%, respectively (P<.001). However, when objective measures of understanding diagnosis and treatment were used, the differences between these groups were smaller and generally not statistically significant. There were no differences between English-speaking Latinos and native Spanish-speakers who said they did not need an interpreter. CONCLUSIONS: Interpreters are often not used despite a perceived need by patients, and the interpreters who are used usually lack formal training in this skill. Language concordance and interpreter use greatly affected patients' perceived understanding of their disease, but a high proportion of patients in all groups had poor knowledge of their diagnosis and recommended treatment.

Bernstein, J., Bernstein, E., Dave, A., Hardt, E., James, T., Linden, J., Mitchell, P., Oishi, T., and Safi, C. (2000). *Does the use of trained medical interpreters affect ED services, reduce subsequent charges and improve follow-up. Academic Emergency Medicine, 7*(5), 523.

OBJECTIVES: To study the impact of trained interpreters on ED services and subsequent hospital/clinic visits and charges. Methods: ED records were correlated with an institutional database at an urban Level I trauma center to retrieve data for an index ED visit and for 30 days after. A dataset was created of 503 patients with chest pain/shortness of breath, headache, abdominal pain, or pelvic pain/vaginal bleeding (non-pregnant). Spanish, French Creole, English and Portuguese Creole speakers were culled from among 26,573 ED patients (seen July-Nov. 1999). Professionally interpreted patients (IPs) were matched with English speaking patients (ESPs) for chief complaint (CC), gender and age. All non-interpreted patients (NIPs) who met CC criteria were included without matching. Chi-square, Kruskal Wallis and OLS regression were used (SPSS). Results: The data set included 63 IPs, 374 NIPs, and 66 ESPs. In bivariate analysis, NIPs had the shortest ED stay (p<.001), and received the fewest tests (p<.04) and prescriptions (p<.03); ESPs received the most ED services and had the greatest length of ED stay. ED return visit charges were lower for IPs (p=.052), and subsequent clinic utilization was less for NIPs than IPs and ESPs (p<.03). In a second analysis limited to patients not admitted at the index visit, return visit ED charges and total 30 day charges were reduced for IPs compared to NIPs and ESPs. Regression analysis did not demonstrate interpretation effects. Conclusions: Use of trained interpreters can increase clinic utilization, decrease 30 day total and ED return charges, and reduce disparities between ESPs and NIPs in number of services at the index ED visit. Professional interpretation time did not increase length of stay beyond that of ESPs.

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

A 45-hour medical Spanish curriculum for an emergency medicine residency program was implemented in response to a need for "functionally bilingual" physicians in our practice setting, and to reduce reliance on translation assistance from nursing and clerical personnel. Course goals were to achieve a vocabulary level of 5,000-10,000 words for participants, and to achieve sufficient language capabilities for basic information exchange, obtaining uncomplicated medical histories, conducting unassisted physical examinations, and giving patient discharge instructions. Feedback obtained from post course interviews and instructor assessment indicated that the curriculum employed resulted in the attainment of the above goals for fully participating physicians.

Carrasquillo, O., Orav, E. J., Brennan, T. A., and Burstin, H. R. (1999). Impact of language barriers on patient satisfaction in an emergency department. *Journal of General Internal Medicine, 14*(2), 82-87.

OBJECTIVE: To examine patient satisfaction and willingness to return to an emergency department (ED) among non-English speakers. DESIGN: Cross-sectional survey and follow-up interviews 10 days after ED visit. SETTING: Five urban teaching hospital EDs in the Northeastern United States. PATIENTS: We surveyed 2,333 patients who presented to the ED with one of six chief complaints. MEASUREMENTS AND MAIN RESULTS: Patient satisfaction, willingness to return to the same ED if emergency care was needed, and patient-reported problems with care was measured. Three hundred fifty-four (15%) of the patients reported English was not their primary language. Using an overall measure of patient satisfaction, only 52% of non-English-

speaking patients were satisfied as compared with 71% of English speakers ($p < .01$). Among non-English speakers, 14% said they would not return to the same ED if they had another problem requiring emergency care as compared with 9.5% of English speakers ($p < .05$). In multivariate analysis adjusting for hospital site, age, gender, race/ethnicity, education, income, chief complaint, urgency, insurance status, Medicaid status, ED as the patient's principal source of care, and presence of a regular provider of care, non-English speakers were significantly less likely to be satisfied (odds ratio [OR] 0.59; 95% confidence interval [CI] 0.39, 0.90) and significantly less willing to return to the same ED (OR 0.57; 95% CI 0.34, 0.95). Non-English speakers also were significantly more likely to report overall problems with care (OR 1.70; 95% CI 1.05, 2.74), communication (OR 1.71; 95% CI 1.18, 2.47), and testing (OR 1.77; 95% CI 1.19, 2.64). CONCLUSIONS: Non-English speakers were less satisfied with their care in the ED, less willing to return to the same ED if they had a problem they felt required emergency care, and reported more problems with emergency care. Strategies to improve satisfaction among this group of patients may include appropriate use of professional interpreters and increasing the language concordance between patients and providers.

Cooke, M. W., Wilson, S., Cox, P., and Roalfe, A. (2000). Public understanding of medical terminology: non-English speakers may not receive optimal care. *Journal of Accident & Emergency Medicine, 17*(2), 119-121.
INTRODUCTION: Many systems of telephone triage are being developed (including NHS Direct, general practitioner out of hours centers, ambulance services). These rely on the ability to determine key facts from the caller. Level of consciousness is an important indicator after head injury but also an indicator of severe illness. AIMS: To determine the general public's understanding of the term "unconscious." METHODS: A total of 700 people were asked one of seven questions relating to their understanding of the term "unconscious." All participants were adults who could speak sufficient English to give a history to a nurse. RESULTS: Correct understanding of the term "unconscious" varied from 46.5% to 87.0% for varying parameters. Those with English as their first language had a better understanding ($p<0.01$) and there was a significant variation with ethnicity ($p<0.05$). CONCLUSIONS: Understanding of the term "unconscious" is poor and worse in those for whom English is not a first language. Decision-making should not rely on the interpretation of questions using technical terms such as "unconscious," which may have a different meaning between professional and lay people.

Cooper-Patrick, L., Gallo, J. J., Gonzales, J. J., Vu, H. T., Powe, N. R., and Nelson, C. (1999). Race, gender, and partnership in the patient-physician relationship. *Journal of the American Medical Association, 282*, 583-589.
CONTEXT: Many studies have documented race and gender differences in health care received by patients. However, few studies have related differences in the quality of interpersonal care to patient and physician race and gender. OBJECTIVE: To describe how the race/ethnicity and gender of patients and physicians are associated with physicians' participatory decision-making (PDM) styles. DESIGN, SETTING, AND PARTICIPANTS: Telephone survey conducted between November 1996 and June 1998 of 1816 adults aged 18 to 65 years (mean age, 41 years) who had recently attended 1 of 32 primary care practices associated with a large mixed-model managed care organization in an urban setting. Sixty-six percent of patients surveyed were female, 43% were white, and 45% were African American. The physician sample (n = 64) was 63% male, with 56% white, and 25% African American. MAIN OUTCOME MEASURE: Patients' ratings of their physicians' PDM style on a 100-point scale. RESULTS: African American patients rated their visits as significantly less participatory than whites in models adjusting for patient age, gender, education, marital status, health status, and length of the patient-physician relationship (mean [SE] PDM score, 58.0 [1.2] vs 60.6 [3.3]; P = .03). Ratings of minority and white physicians did not differ with respect to PDM style (adjusted mean [SE] PDM score for African Americans, 59.2 [1.7] vs whites, 61.7 [3.1]; P = .13). Patients in race-concordant relationships with their physicians rated their visits as significantly more participatory than patients in race-discordant relationships (difference [SE], 2.6 [1.1]; P = .02). Patients of female physicians had more participatory visits (adjusted mean [SE] PDM score for female, 62.4 [1.3] vs male, 59.5 [3.1]; P = .03), but gender concordance between physicians and patients was not significantly related to PDM score (unadjusted mean [SE] PDM score, 76.0 [1.0] for concordant vs 74.5 [0.9] for discordant; P = .12). Patient satisfaction was highly associated with PDM score within all race/ethnicity groups. CONCLUSIONS: Our data suggest that African American patients rate their visits with physicians as less participatory than whites. However, patients seeing physicians of their own race rate their physicians' decision-making styles as more participatory. Improving cross-cultural communication between primary care physicians and patients and providing patients with access to a diverse group of physicians may lead to more patient involvement in care, higher levels of patient satisfaction, and better health outcomes.

Crane, J. A. (1997). Patient comprehension of doctor-patient communication on discharge from the emergency department. *Journal of Emergency Medicine, 15*(1), 1-7.
An exit interview was conducted during March, 1994 on 314 patients treated and released from the Emergency Department at Kern Medical Center in Bakersfield, California. The questionnaire was designed to assess understanding of diagnosis, prescribed medications, additional instructions, and plans for follow-up care. The patients' own perceptions of the adequacy of communication and whom they considered the most important source of information were also determined. Overall, patients correctly identified 59% of their instructions. The performance of the English-speaking and the Spanish-speaking patients was compared. Spanish-speaking patients scored significantly lower on all questions. Most patients identified the physician as the source of the most information. The authors make recommendations for further study and use of professional interpreters in hospitals.

David, R. A., and Rhee, M. (1998). The impact of language as a barrier to effective health care in an underserved urban Hispanic community. *Mt Sinai Journal of Medicine, 65*(5-6), 393-397.
BACKGROUND: Language barriers between patient and physi-

cian impact upon effective health care. This phenomenon is not well studied in the literature. METHODS: A survey was created in English and Spanish, and administered at the ambulatory site for medical housestaff and faculty at a teaching hospital. "Cases" were defined as patients who reported using a translator or as having poor English skills. Patients who reported not using a translator and having good English skills served as controls. Both groups were predominantly of Hispanic origin. RESULTS: Analysis revealed 68 cases and 193 controls. The survey completion rate was 96%. The data were predominantly categorical. Chi-square analysis was utilized. Both groups responded that understanding medication side effects corresponds to compliance (87% cases vs 93% controls, $p = 0.18$). More cases responded that side effects were not explained (47% vs 16%, $p < 0.001$). More controls reported satisfaction with medical care (93% vs 84%, $p < 0.05$). More controls agreed that their doctors understood how they were feeling, with statistical significance in Hispanic subset analysis (87% vs 72%, $p < 0.05$). Both groups felt they had enough time to communicate with their doctors (89% vs. 88%, $p = 0.86$). More cases than controls reported having had a mammogram within the last 2 years (78% vs. 60%, $p < 0.05$). CONCLUSIONS: Lack of explanation of side effects to medication appeared to correlate negatively with compliance with medication. The language barrier correlated negatively with patient satisfaction. Cases reported more preventive testing; test ordering may replace dialogue.

Derose, K. P., and Baker, D. W. (2000). Limited English proficiency and Latinos' use of physician services. *Medical Care Research & Review, 57*(1), 76-91.
Many Latinos have limited English proficiency and this may negatively affect their use of health care services. To examine this, the authors interviewed 465 Spanish-speaking Latinos and 259 English speakers of various ethnicities who presented to a public hospital emergency department with non-urgent medical problems to assess previous physician visits, sociodemographic characteristics, and level of English proficiency. The proportion of patients who reported no physician visit during the 3 months before study enrollment was not related to English proficiency. However, among the 414 patients who saw a physician at least once, Latinos with fair and poor English proficiency reported approximately 22 percent fewer physician visits ($p = 0.020$ and $p = 0.015$, respectively) than non-Latinos whose native language was English, even after adjusting for other determinants of physician visits. The magnitude of the association between limited English proficiency and number of physician visits was similar to that for having poor health, no health insurance, or no regular source of care.

Dias, M. R., and O'Neill, E. O. (1998). Examining the role of professional interpreters in culturally-sensitive health care. *Journal of Multicultural Nursing & Health, 4*(1), 27-31.
Multiple factors affect the client's ability to receive and use health care. Language barriers pose a significant threat to the nurse-client relationship. The hypothesis proposed is that health care professionals may overcome this barrier through the use of skilled, professional interpreters. The following paper analyzes existing studies regarding the use of both professional and informal interpreting services in various settings to determine their outcome on patient care. When the studies were analyzed, two major outcomes were found to be consistent. First, patient access to health care was highly correlated with the availability of translators at health care sites. Second, health care professionals perceived that their efficacy in providing care improved significantly with the use of skilled interpreters. The accuracy of written translation tools is also examined. This review found that nursing can benefit greatly from the use of formal interpreters by promoting effective communication, trust, and positive relationships with clients. With careful supervision and training, interpreters can provide an invaluable link to improving health outcomes and meeting patient needs.

Drennan, G. (1996). Counting the cost of language services in psychiatry. *South African Medical Journal, 86*(4), 343-345.
OBJECTIVE: To document interpreter utilization at a major South African mental hospital over a two-month period in 1993. DESIGN: A survey was conducted by requesting clinicians to complete a questionnaire each time they required an interpreter. SETTING: Seven admission wards at a Western Cape mental hospital and an emergency psychiatric service at a general hospital. PARTICIPANTS: Twenty-nine clinical staff members. MAIN OUTCOME MEASURES: Number of patients requiring an interpreter, who provides interpreting services; interpreter availability; and duration of interview. RESULTS: One hundred and forty-eight predominantly Xhosa-speaking patients (20-30% of admissions) required interpreting. Interpreter services were available immediately in 69% of cases. Nursing staff provide 67% of the interpreter service, while cleaning staff provide 10%. There were 93.5 documented hours of interpreting. One person employed as an interpreter in two wards had longer interviews on average than the other staff members. The opportunity cost of using nurses and cleaners as interpreters amounts to R1 504 for the period of the study. CONCLUSIONS: Psychiatrically educated staff are clearly preferred as interpreters. A significant proportion of patients are being assessed through the use of family members, cleaners and other inappropriate people. The financial burden to the hospitals of not providing an interpreter service is small, but the impact on working conditions and service to patients is considerable.

Enguidanos, E. R., and Rosen, P. (1997). Language as a factor affecting follow-up compliance from the emergency department. *Journal of Emergency Medicine, 15*(1), 9-12.
We evaluated language (English vs. Spanish) as a variable in compliance with follow-up appointments from emergency department (ED) referrals and compared it with four other socioeconomic variables. Patients were interviewed on presentation to the ED. A follow-up interview was performed by phone eight weeks later, after the scheduled referral date. We find that language is not a significant variable influencing follow-up compliance. Having a primary medical doctor prior to the ED visit was positively correlated with follow-up compliance and was the only significant socioeconomic variable irrespective of language ability. There was no significant correlation between English speaking and any of the socioeconomic variables. Among Spanish speakers, having a primary medical doctor and having some form of medical insurance were significantly correlated to compliance with referrals.

Erzinger, S. (1991). Communication between Spanish-speaking patients and their doctors in medical encounters. *Culture, Medicine & Psychiatry, 15*(1), 91-110.
Little research in patient-doctor communication addresses the profound difficulties that emerge as Spanish-speaking patients seek medical services in the U.S. This study examines the interaction of language and culture in medical encounters between Spanish-speaking Latino patients and their doctors who have a range of Spanish language ability and a variety of cultural backgrounds. Initial ethnographic fieldwork investigated Spanish-speaking patients' perceptions of doctors' Spanish language skill as it relates to their medical service. To elaborate on these fieldwork findings, medical encounters were audiotaped for detailed conversational analysis. Data from the two methods illustrate how language and culture interact in accomplishing communicative tasks as doctors attend Spanish-speaking patients.

Eytan, A., Bischoff, A., and Loutan, L. (1999). Use of interpreters in Switzerland's psychiatric services. *Journal of Nervous and Mental Disease, 187(*3), 190-192.
A survey on medical interpretation in psychiatry was sent to all psychiatric hospitals and public psychiatric services in Switzerland in May 1997. Forty-five percent of psychiatric departments estimated that 1-5% of their patients did not speak, or spoke only poorly, the local language. 22% estimated that proportion to be 5-7%, and 9% estimated the proportion to be greater than 10%. Ninety-four percent of departments considered that difficulties, rated from moderate to considerable, existed in communicating with patients who did not speak or spoke poorly the local language. Six and a half percent of departments never used interpreters, 40% used interpreters rarely, and 50% used interpreters often. 85% of departments used health care staff and/or patients' relatives or friends as interpreters. 72% of departments used non-medical staff as interpreters, 49% used outside volunteers, and 59% used trained and paid interpreters.

Flaskerud, J. H., and Liu, P. Y. (1991). Effects of an Asian client-therapist language, ethnicity and gender match on utilization and outcome of therapy. *Community Mental Health Journal, 27*(1), 31-42.
The purpose of this study was to examine the relationship of Asian client-therapist ethnicity, language and gender match on two measures of utilization: number of sessions with primary therapist and dropout from therapy; and one measure of client outcome: admission-discharge difference in Global Assessment Scale (GAS) scores. The sample consisted of 1746 Asian client episodes in Los Angeles County mental health facilities between January 1983 and August 1988. Various types of multiple regression analyses were used to investigate the relationship of language, ethnicity, and gender match to the three dependent variables and to eight socio-demographic variables. Either client-therapist language match or ethnic match significantly increased the number of client sessions with the primary therapist. However, only ethnicity match had a significant effect on dropout rate. Gain in GAS admission-discharge score was not affected by either a client-therapist ethnicity or language match. Gender match had no consistent effect on the dependent variables. Of the covariates examined, only therapist discipline (social worker) had a consistent effect on the dependent variables. It was concluded that both client-therapist language and ethnicity match are important variables affecting the utilization of treatment. Further research will be needed to separate the effects of language and ethnicity on therapy utilization.

Flores, G., Laws, M., Mayo, S., Zuckerman, B., Abreu, M., Medina, L., and Hardt, E. J. (2003). Errors in medical interpretation and their potential clinical consequences in pediatric encounters. *Pediatrics, 111*(1), 6-14.
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 31 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.

Hampers, L. C., and McNulty, J. E. (2002). Professional interpreters and bilingual physicians in a pediatric emergency department. *Archives of Pediatrics and Adolescent Medicine, 156*(11), 1108-1113.
OBJECTIVE: To determine the impact of interpreters and bilingual physicians on emergency department (ED) resource utilization. DESIGN: Cohorts defined by language concordance and interpreter use were prospectively studied preceding and following the availability of dedicated, professional medical interpreters. SETTING: Pediatric ED in Chicago, Ill. PARTICIPANTS:

We examined 4146 visits of children (aged 2 months to 10 years) with a presenting temperature of 38.5 degrees C or higher or a complaint of vomiting or diarrhea; 550 families did not speak English. In 170 cases, the treating physician was bilingual. In 239, a professional interpreter was used. In the remaining 141, a professional medical interpreter was unavailable. MAIN OUTCOME MEASURES: Incidence and costs of diagnostic testing, admission rate, use of intravenous hydration, and length of ED visit. RESULTS: Regression models incorporated clinical and demographic factors. Compared with the English-speaking cohort, non-English-speaking cases with bilingual physicians had similar rates of resource utilization. Cases with an interpreter showed no difference in test costs, were least likely to be tested (odds ratio [OR], 0.73; 95% confidence interval [CI], 0.56-0.97), more likely to be admitted (OR, 1.7; 95% CI, 1.1-2.8), and no more likely to receive intravenous fluids, but had longer lengths of visit (+16 minutes; 95% CI, 6.2-26 minutes). The barrier cohort without a professional interpreter had a higher incidence (OR, 1.5; 95% CI, 1.04-2.2) and cost (+$5.78; 95% CI, $0.24-$11.21) for testing and was most likely to be admitted (OR, 2.6; 95% CI, 1.4-4.5) and to receive intravenous hydration (OR, 2.2; 95% CI, 1.2-4.3), but showed no difference in length of visit. CONCLUSION: Decision making was most cautious and expensive when non-English-speaking cases were treated in the absence of a bilingual physician or professional interpreter.

Hampers, L. C., Cha, S., Gutglass, D., Binns, H., and Krug, S. (1999). Language barriers and resource utilization in a pediatric emergency department. *Pediatrics, 103*(6 Pt 1), 1253-1256.
BACKGROUND: Although an inability to speak English is recognized as an obstacle to health care in the United States, it is unclear how clinicians alter their diagnostic approach when confronted with a language barrier (LB). OBJECTIVE: To determine if a LB between families and their emergency department (ED) physician was associated with a difference in diagnostic testing and length of stay in the ED. DESIGN: Prospective cohort study. METHODS: This study prospectively assessed clinical status and care provided to patients who presented to a pediatric ED from September 1997 through December 1997. Patients included were two months to ten years of age, not chronically ill, and had a presenting temperature ≥38.5 degrees C or complained of vomiting, diarrhea, or decreased oral intake. Examining physicians determined study eligibility and recorded the Yale Observation Score if the patient was <3 years old, and whether there was a LB between the physician and the family. Standard hospital charges were applied for each visit to any of the 22 commonly ordered tests. Comparisons of total charges were made among groups using Mann-Whitney U tests. Analysis of covariance was used to evaluate predictors of total charges and length of ED stay. RESULTS: Data were obtained about 2467 patients. A total of 286 families (12%) did not speak English, resulting in a LB for the physician in 209 cases (8.5%). LB patients were much more likely to be Hispanic (88% vs. 49%), and less likely to be commercially insured (19% vs. 30%). These patients were slightly younger (mean 31 months vs. 36 months), but had similar acuity, triage vital signs, and Yale Observation Score (when applicable). In cases in which a LB existed, mean test charges were significantly higher: $145 versus $104, and ED stays were significantly longer: 165 minutes versus 137 minutes. In an analysis of covariance model including race/ethnicity, insurance status, physician training level, attending physician, urgent care setting, triage category, age, and vital signs, the presence of a LB accounted for a $38 increase in charges for testing and a 20 minute longer ED stay. CONCLUSION: Despite controlling for multiple factors, the presence of a physician-family LB was associated with a higher rate of resource utilization for diagnostic studies and increased ED visit times. Additional study is recommended to explore the reasons for these differences and ways to provide care more efficiently to non-English-speaking patients.

Hayes, R. P., and Baker, D. W. (1998). Methodological problems in comparing English-speaking and Spanish-speaking patients' satisfaction with interpersonal aspects of care. *Medical Care, 36*(2), 230-236.
OBJECTIVES: The authors examine the reliability and validity of English and Spanish versions of a patient satisfaction measure, the Interpersonal Aspects of Care (IAC) Examiner Scale. METHODS: The examiner scale was administered to 234 Spanish-speaking and 250 English-speaking patients seen in the emergency department of a large public hospital. Reliability and validity coefficients were calculated for both administrations. Differences in item and scale response distributions were compared using two methods of response dichotomization. RESULTS: In general, the examiner scale was reliable and valid. However, the Spanish version of the scale was significantly less reliable and valid. Depending on the method of item response dichotomization, significant differences between Spanish-speaking and English-speaking patients were found for the majority of the individual scale items. This was due primarily to a tendency for Spanish-speaking patients to respond "good" to items more frequently than did English-speaking patients. CONCLUSIONS: The results bring into question the use of certain types of response formats and the practice of dichotomizing responses when evaluating patient satisfaction in Spanish-speaking patients.

Hornberger, J., Itakura, H., and Wilson, S. R. (1997). Bridging language and cultural barriers between physicians and patients. *Public Health Rep, 112*(5), 410-417.
OBJECTIVE: This study explored a group of primary care physicians' use of various methods to bridge language and cultural barriers between themselves and their patients and the physicians' perceptions of the availability and quality of these methods. METHODS: The authors mailed a questionnaire to 495 primary care physicians in the Greater Bay Area of northern California, an area chosen for its ethnically diverse population. Respondents were asked to estimate how many patients they saw per week, how many encounters they had per week with non-English-speaking patients, and how often they used each of six interpretation methods. They were also asked to assess the availability and quality of interpretation services. RESULTS: Physicians reported that, on average, 21% of visits were with non-English-speaking patients. Trained medical interpreters or the AT&T Language Line were used, on average, in fewer than 6% of these encounters, and no interpreters were used in 11%. In 27% of encounters with non-English-speaking patients, the physician could speak the patient's language, in 20% interpretation was done by a staff member who had no formal interpretation training, and in 36% a family member or companion of the patient

interpreted. Physicians who had access to trained interpreters reported a significantly higher quality of patient-physician communication than physicians who used other methods ($P < 0.0001$). CONCLUSIONS: In an area of great ethnic diversity where physicians who had access to the services of trained interpreters reported a significantly higher quality of patient-physician communication, the low rates of use of trained interpreters suggest that factors other than quality, such as costs, preclude greater use of these services.

Hornberger, J. C., Gibson, C. D., Wood, W., Dequeldre, C., Corso, I., Palla, B., and Bloch, D. A. (1996). Eliminating language barriers for non-English-speaking patients. ***Medical Care, 34*****(8), 845-856.**

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.

Hu, D. J., and Covell, R. M. M. (1986). Health care usage by Hispanic outpatients as a function of primary language. ***Western Journal of Medicine*** **144(4), 490-493.**

Three groups of Hispanic patients at five outpatient clinics in San Diego County, California, participated in a survey questionnaire concerning health care usage according to whether they were Spanish-speaking only, bilingual with Spanish as a primary language, or primarily English-speaking. Although the three groups were similar in age and income distribution, the use of health services (regular source of health care, health insurance, admission to hospital, and frequency of general physical, eye, and dental examinations) was positively correlated with the increased use of English. Likewise, respondents whose primary language was English were more likely to describe their health care as more than adequate and their own health as excellent than were those whose primary language was Spanish.

Jackson, J. C., Rhodes, L. A., Inui, T., and Buchwald, D. (1997). Hepatitis B among the Khmer: issues of translation and concepts of illness. ***Journal of General Internal Medicine, 12*****, 292-298.**

OBJECTIVE: To assess the comprehensibility of hepatitis B translations for Cambodian refugees, to identify Cambodian illnesses that include the symptoms of hepatitis, and to combine these observations with critical theoretical perspectives of language to reflect on the challenges of medical translations generally. DESIGN: Open-ended, semistructured interviews, and participant-observation of a refugee community in Seattle, Washington. SETTING: Homes of Cambodian residents of inner-city neighborhoods. PARTICIPANTS: Thirty-four adult Cambodian refugees who had each been educated about hepatitis B through public health outreach. RESULTS: Medical interpreters translated hepatitis B as rauk tlaam, literally "liver disease." Unfortunately, while everyone knew of the liver (tlaam), rauk tlaam was a meaningless term to 28 (82%) of 34 respondents and conveyed none of the chronicity and communicability intended by refugee health workers for 34 (100%) of the respondents. In contrast, all respondents knew illnesses named after symptom complexes that include the symptoms of acute and chronic hepatitis, but do not refer to diseased organs. The Cambodian words chosen to translate hepatitis B reflect the medical thinking and medical authority that can unintentionally overwhelm attempts at meaningful communication with non-English-speaking patients. CONCLUSIONS: To improve comprehension of hepatitis B translations for the Khmer, translators must choose between medical terminology focused on the liver and Khmer terminology which identifies recognizable experiences, but represents important Khmer health concepts. A critical linguistic view of this situation suggests that for these translations to be meaningful clinicians and health educators must first analyze and then monitor the contextual significance of medical language. In cross-cultural settings, this means a partnership with medical interpreters to pay close attention to the experience of illness and social context of the translation.

Jacobs, E. A., Lauderdale, D. S., and Meltzer, D., Shorey, J. M., Levinson, W., and Thisted, R. A. (2001). Impact of interpreter services on delivery of health care to limited-English-proficient patients. ***Journal of General Internal Medicine, 16*****(7), 468-474.**

OBJECTIVE: To determine whether professional interpreter services increase the delivery of health care to limited-English-proficient patients. DESIGN: Two-year retrospective cohort study during which professional interpreter services for Portuguese

and Spanish-speaking patients were instituted between years one and two. Preventive and clinical service information was extracted from computerized medical records. SETTING: A large HMO in New England. PARTICIPANTS: A total of 4,380 adults continuously enrolled in a staff model health maintenance organization for the two years of the study, who either used the comprehensive interpreter services (interpreter service group [ISG]; N = 327) or were randomly selected into a 10% comparison group of all other eligible adults (comparison group [CG]; N = 4,053). MEASUREMENTS AND MAIN RESULTS: The measures were change in receipt of clinical services and preventive service use. Clinical service use and receipt of preventive services increased in both groups from year one to year two. Clinical service use increased significantly in the ISG compared to the CG for office visits (1.80 vs. 0.70; P <.01), prescriptions written (1.76 vs 0.53; P <.01), and prescriptions filled (2.33 vs. 0.86; P<.01). Rectal examinations increased significantly more in the ISG compared to the CG (0.26 vs. 0.02; P =.05) and disparities in rates of fecal occult blood testing, rectal exams, and flu immunization between Portuguese and Spanish-speaking patients and a comparison group were significantly reduced after the implementation of professional interpreter services. CONCLUSION: Professional interpreter services can increase delivery of health care to limited-English-speaking patients.

Jacobs, E. A., Suaya, J., Stone, E. L., and Shepard, D. S. (2001). *Overcoming language barriers to access to medical care: the costs and benefits of interpreter services*: Collaborative Research Unit, Cook County Hospital, Chicago, IL; Schneider Institute for Health Policy, Brandeis University, Waltham, MA; Division of Medical Assistance, Commonwealth of Massachusetts, Boston, MA.
BACKGROUND: Many US residents face language barriers that reduce access to medical care. Despite a growing focus on this problem many health care organizations provide inadequate interpreter services. A principal reason is the concern that uncertain benefits do not justify the costs of adequate services. The objective of this study was to assess the impact of an interpreter service program on the utilization and cost of health care services at a staff model HMO. METHODS: We conducted a two-year cohort study of continuously enrolled adult members of a staff model HMO where new comprehensive interpreter services for Spanish and Portuguese-speaking ambulatory patients were implemented in year two of the study. Two groups were studied: an interpreter service group (ISG, n=380) consisting of members who used the new interpreter services and a comparison group (CG, n=4119) consisting of a 10% random sample of all other members who received ambulatory care in year two. We abstracted demographic information and utilization of primary health care services (preventive services and outpatient services) and hospital-based services (ED visits and hospitalizations) from the HMO's administrative database. We calculated the unit cost per interpretation based on the cost of the services (salaries, fringe benefits, supervision, and overhead) and reported volume of use of services. We calculated induced costs of interpreter services by multiplying the change in utilization for each health care service by its 1997 fee-for-service reimbursement rate from the Massachusetts' Division of Medical Assistance. RESULTS: Utilization of primary health care increased in both groups after implementation of interpreter services. The changes (yr2-yr1) in utilization of primary care services (p<0.05), utilization of office visits (p<0.01), prescriptions filled (p<0.01) and prescriptions written (p<0.01) were significantly greater in the ISG compared to the CG. Utilization of hospital-based services remained the same for both groups, except for a reduction in ED use by the ISG. The change in rate of ED use (yr2-yr1) was not significant when compared to the CG. The net cost of providing interpreter services in 1997 prices was $79/per interpretation x 2.95 visits per person/ per year in the ISG. The net induced cost of the increased care delivered to the ISG compared to the CG was $22 per person per year. The overall cost impact was an increase of $256 per person per year in the ISG or $2.41 per HMO member per year. CONCLUSIONS: We found that professional interpreter services improve the delivery of health care to LEP patients, increasing the delivery of preventive and all primary care and possibly reducing the use of ED services. The net first-year cost was $256 per person using the interpreter services or $2.41 per HMO member per year.

James, C. E. (1998). Cultural interpretation services within a multicultural context: an exploration of the problematic and ethical issues facing social service institutions. *Canadian Journal of Community Mental Health, 17*(2), 51-66.
This paper explores the challenges for social service agencies which offer cultural interpretation services in their bid to meet dire needs of service seekers and recipients from linguistic minorities. The author argues that cultural interpretation is provided by institutions that have done little more than add a service for clients from cultural minorities, while leaving intact their service structures-structures that have historically viewed language and "cultural differences" as problems. This orientation will need to change if these services are to be accessible and equitable for Canadians from linguistic and ethnic minorities. While cultural interpreters remain critical to service delivery, they need to work within institutions where service providers and administrators understand language as a cultural, social, and political instrument through which individuals articulate their identities, realities, and understandings of their cultural contexts and service needs. This paper concludes by identifying some of the ethical dilemmas and questions that attend the needed institutional changes.

Kirkman-Liff, B., and Mondragon, D. (1991). Language of interview: relevance for research of southwest Hispanics. *American Journal Of Public Health, 1991*(81), 1399-1404.
BACKGROUND: This paper reports the results of a survey investigating health status, access, satisfaction with care, and barriers to care in Arizona. The major focus is on the association between languages of the interview and of the dependent measures; interviews were conducted in English and Spanish. METHODS: The differences between groups were tested using chi-square statistics for each independent categorical variable; the significance of all the independent variables on each of the dependent variables was tested simultaneously using a maximum likelihood logistical regression models. RESULTS: Language of interview for Hispanic children was a significant variable, more important than ethnicity itself, in determining health status, access, satisfaction with care, and barriers to care; language of the

interview for Hispanic adults was not a significant measure, but neither was ethnicity. Instead, income affected access to care for adults. CONCLUSIONS: This pattern of results suggests that in the southwestern United States, studies on health status and access to care that use only ethnicity and do not include language of the interview may fail to identify populations of Hispanic children who are remarkably more vulnerable. PUBLIC HEALTH: The research of Hispanic populations can be more instrumental toward policy improvement if it increases its specificity with this heterogeneous group. Analysis of language of the interview has a low cost and a high benefit toward this specification.

Kravitz, R. L., Helms, L. J., Azari, R., Antonius, D., and Melnikow, J. (2000). Comparing the use of physician time and health care resources among patients speaking English, Spanish, and Russian. *Medical Care, 38*(7), 728-738.
BACKGROUND AND OBJECTIVES: The number of US residents with limited English proficiency (LEP) is 14 million and rising. The goal of this study was to estimate the effects of LEP on physician time and resource use. DESIGN: This was a prospective, observational study. SETTING AND SUBJECTS: The study included 285 Medicaid patients speaking English (n = 112), Spanish (n = 62), or Russian (n = 111) visiting the General Medicine and Family Practice Clinics at the UC Davis Medical Center in 1996-1997 (participation rate, 85%). Bilingual research assistants administered patient questionnaires, abstracted the medical record, and conducted detailed time and motion studies. MAIN OUTCOME MEASURES: We used seemingly unrelated regression models to evaluate the effect of language on visit time, controlling for patient demographics and health status, physician specialty, visit type, and resident involvement in care. We also estimated the effect of LEP on cross-sectional utilization of health care resources and adherence to follow-up with referral and testing appointments. RESULTS: The three language groups differed significantly by age, education, and reason for visit but not gender, number of active medical conditions, physical functioning, or mental health. Physician visit time averaged 38+/-20 minutes (mean+/-SD). Compared with English-speaking patients and after multivariate adjustment, Spanish and Russian speakers averaged 9.1 and 5.6 additional minutes of physician time, respectively ($P < 0.05$). The language effect was confined largely to follow-up visits with resident physicians (house staff). Compared with English speakers, Russian speakers had more referrals ($P = 0.003$) and Spanish speakers were less likely to follow-up with recommended laboratory studies ($P = 0.031$). CONCLUSIONS: In these academic primary care clinics, some groups of patients using interpreters required more physician time than those proficient in English. Additional reimbursement may be needed to ensure continued access and high-quality care for this special population.

Lee, E. D., and Rosenberg, C. R. (1998). Does a physician-patient language difference increase the probability of hospital admission? *Academic Emergency Medicine, 5*(1), 86-89.
OBJECTIVE: To determine whether a difference in the preferred language of communication between the patient and the emergency physician was associated with a greater probability of admission to the hospital. SETTING: The study was carried out in 1995 in the emergency department (ED) of the New York Hospital Medical Center of Queens in Flushing, NY. METHODS: A convenience sample of 1,000 patients registered in the ED over a 2-month period was classified as either adult or pediatric. Subjects were prospectively evaluated as to whether their preferred language of communication was different from that of their primary ED physician, and were classified either as "language disparate" (if different) or "language matched" (if the language was the same). A data collection form was completed for each patient by the physician, and included information on patient age, sex, acuity of injury or illness (high, moderate, or low), and whether an interpreter was present. Physicians were blinded to the study purpose and told that the ED was doing a "needs assessment" for intepreter services. Univariate comparison between the language disparate and language matching groups were assessed for significance using Fisher's exact test for nominal categorical variables and the two-sample Kolmogorov-Smirnov test for ordered categorical variables. Cox proportional hazards model was used for multivariate data analysis. RESULTS: Of the 653 adult study subjects, 557 (85.30%) spoke English as a preferred language. Non-professional interpreters were present in 80 cases (52%) of the disparate language group. Twenty-nine (36%) of these were family members, eight (10%) were emergency medical technicians, seven (9%) were hospital staff other than physicians (clerks, nurses, nurse's aides, or volunteers), one (1%) was a physician, and 26 (33%) were undescribed. The rate of admissions from the pediatric language disparate group was not increased (13% vs. 13% for the matched group). For adult patients in the disparate language group, the risk of admission to hospital was found to be significantly increased (35% vs. 21% in the matching group). Risk of admission to the hospital increased with increasing age and acuity level, and decreased in the presence of an interpreter. The chance of being admitted to the hospital approximately 70% greater for disparate language patients than matched language patients.

Lee, S. M., and Pope, C. R. (2001). *Final report: patients who don't speak English: improving language minorities' health care with professional interpreters*. Washington, DC: U.S. Department of Health and Human Services Office of Minority Health.
This paper reports findings from a study of the effects of interpreter services on utilization of health care by limited English proficient (LEP) patients. Data are based on administrative records on visits to health providers collected by a large health maintenance organization, Kaiser Permanente/Northwest (KPNW) in the Portland, Oregon, metropolitan area and its contractor for interpreter services, Pacific Interpreters (PI). The data cover a four-year period, from June 1995 to August 1999. Around July 1997, or about mid-way through the four-year study period, KPNW implemented a centralized professional interpreter service for its LEP members. We compare LEP members' use of health care two years before, and after, the implementation of the interpreter service. The sample consists of 1,037 LEP members of KPNW. The sample was continuously enrolled for four years, thus allowing an analysis of the effects of interpreter services. The main research objective is to observe and analyze change in the outcome variables before and after July 1997. The outcome variables include: total visits by LEP members to health provid-

ers; total visits to emergency and urgent care facilities; percent of failures to show up for scheduled visits; length of stay in emergency facilities; level of care provided in emergency facilities; and consistency between complaint and diagnosis codes in emergency facilities. We expect total visits to increase after interpreter services are introduced in July 1997 because interpreters enable greater access to health care for LEP patients. The percent of failures to show up for scheduled visits, use of emergency facilities, and length of stay in emergency facilities are expected to show declines after interpreters are available. For these three outcome measures, interpreters are expected to facilitate LEP patients' ability to: cancel and reschedule appointments, replace visits to emergency and urgent care facilities with routine visits, and reduce amount of time in emergency facilities through more effective communication with health providers. Finally, level of care in emergency facilities and consistency between complaint and diagnosis are expected to increase, again because interpreters facilitate effective communication between LEP patients' and health providers. We also examine how changes in the outcome measures vary by gender, language group, age, and type of health care coverage of LEP members. Over 60 percent of the sample are women. Four language groups make up about 85 percent of the sample: 26 percent are Spanish-speakers, 28 percent are Vietnamese speaking, 16 percent are Russian speaking, and 15 percent are Chinese speakers. Language is used as a proxy for observing cultural differences in the impact of interpreter services. We are also able to compare LEP patients who are on Medicaid or the Oregon Health Plan (for low income patients) with patients who have private health insurance. We discuss the findings with reference to how interpreter services as a form of health care service affects the health care utilization of LEP patients who experience language and related cultural barriers in accessing health care. We recognize that our study is a limited examination of this increasingly important issue in the U.S. health care system, given increases in the foreign-born population and federal guidelines on compliance with Title VI of the Civil Rights Act of 1964 with respect to LEP individuals. In spite of data limitations, the findings can help inform health providers, patients, advocacy groups, and policy makers on how interpreter services can facilitate better access to, and more effective use of, health care by the growing LEP population.

Leman, P. (1997). Interpreter use in an inner city accident and emergency department. *Journal of Accident & Emergency Medicine, 14*(2), 98-100.
OBJECTIVE: To determine the extent of communication problems that arose from patients whose primary language was non-English presenting to an inner city accident and emergency (A&E) department. METHODS: A prospective survey over seven consecutive days during September 1995. All adult patients other than those directly referred by their general practitioner to an inpatient team had a questionnaire completed by the A&E doctor first seeing the patient. The doctor recorded language ability and form of interpreter used, and estimated any prolongation of the consultation and ability to improve communication by the use of additional services. RESULTS: 103 patients (17%) did not speak English as their primary language; 55 patients (9.1% of the study population) had an English language ability rated as other than good, and 16 (29%) of these consultations could have been improved by the use of additional interpreter services; 28 patients overall (4.6% of the study population) required the use of an interpreter, who was usually a relative. CONCLUSIONS: A significant number of patients presenting to A&E have difficulty in communicating in English. These consultations could often have been improved by the use of additional interpreter services. Telephone interpreter services may provide the answer for use in A&E departments because of their instant and 24 hour availability.

Manson, A. (1988). Language concordance as a determinant of patient compliance and emergency room use in patients with asthma. *Medical Care, 26*(12), 1119-1128.
To test the hypothesis that the ability of physicians to speak the same language as asthmatic patients promotes patient compliance and the use of scheduled office appointments in preference to emergency services, the charts of 96 Spanish-speaking patients with asthma were reviewed. Of these patients, 65 were cared for by seven Spanish-speaking bilingual physicians and 31 were cared for by 23 non-Spanish speaking physicians. Compared with patients with language concordant physicians, patients with language discordant physicians were only slightly more likely to omit medication, to miss office appointments, and to make at least one emergency room visit. Subgroup analysis showed that, with extended follow-up, patients cared for by a language discordant physician were more likely to omit medication (rate ratio: 3.24; $p = 0.08$), more likely to miss office appointments (rate ratio: 3.06; $P = 0.01$), and were slightly more likely to make an emergency room visit (rate ratio: 2.07; $P = 0.12$) than patients with language concordant physicians. Cox regression analyses taking account of differences in follow-up time, age, gender, pay-status, and severity of disease confirmed these findings. These data suggest that patient compliance and more cost-effective use of ambulatory care services may be associated with the ability of physicians to speak the same language as their patients.

Marcos, L. R. (1979). Effects of interpreters on the evaluation of psychopathology in non-English-speaking patients. *American Journal of Psychiatry, 136*(2), 171-174.
Non-English-speaking patients in need of psychiatric services are usually evaluated with the help of an interpreter. Discussions with psychiatrists and lay hospital interpreters who had experience in these interviews and content analysis of eight audiotaped interpreter-mediated psychiatric interviews suggested that clinically relevant interpreter-related distortions could lead to misevaluation of the patient's mental status. The author notes that pre- and post-interview meetings of clinicians and interpreters have been found useful in minimizing these distortions.

Mazor, S. S., Hampers, L. C., Chande, V. T., and Krug, S. E. (2002). Teaching Spanish to pediatric emergency physicians: effects on patient satisfaction. *Archives of Pediatrics and Adolescent Medicine, 156*(7), 693-695.
BACKGROUND: Language barriers are known to negatively affect patient satisfaction. OBJECTIVE: To determine whether a course of instruction in medical Spanish for pediatric emergency department (ED) physicians is associated with an increase in

satisfaction for Spanish-speaking-only families. DESIGN, SETTING, PARTICIPANTS, AND INTERVENTION: Nine pediatric ED physicians completed a 10-week medical Spanish course. Mock clinical scenarios and testing were used to establish an improvement in each physician's ability to communicate with Spanish-speaking-only families. Before (preintervention period) and after (postintervention period) the course, Spanish-speaking-only families cared for by these physicians completed satisfaction questionnaires. Professional interpreters were equally available during both the preintervention and postintervention periods. MAIN OUTCOME MEASURES: Responses to patient family satisfaction questionnaires. RESULTS: A total of 143 Spanish-speaking-only families completed satisfaction questionnaires. Preintervention (n = 85) and postintervention (n = 58) cohorts did not differ significantly in age, vital signs, length of ED visit, discharge diagnosis, or self-reported English proficiency. Physicians used a professional interpreter less often in the postintervention period (odds ratio [OR], 0.34; 95% confidence interval [CI], 0.16-0.71). Postintervention families were significantly more likely to strongly agree that "the physician was concerned about my child" (OR, 2.1; 95% CI, 1.0-4.2), "made me feel comfortable" (OR, 2.6; 95% CI, 1.1-4.4), "was respectful" (OR, 3.0; 95% CI, 1.4-6.5), and "listened to what I said" (OR, 2.9; 95% CI, 1.4-5.9). CONCLUSIONS: A 10-week medical Spanish course for pediatric ED physicians was associated with decreased interpreter use and increased family satisfaction.

Meyers, C. (1992). Hmong children and their families: consideration of cultural influences in assessment. *American Journal of Occupational Therapy, 46*(8), 737-744.

Occupational therapists assessing young Hmong children with developmental problems must consider their families' cultural beliefs as they affect the design of assessment procedures and practices. Choices that families make about health and educational services are influenced by their beliefs. Developmental status can be affected by unresolved medical problems and the child's general health condition. Assessment components based on cultural awareness may improve the effectiveness of early identification of Hmong children with developmental delay. Appropriate use of interpreters, creation of the most beneficial assessment environment, parental report, and observation of functional skills and play provide needed information when determining the child's eligibility for early intervention services. The author has found that trained interpreters provide the most reliable communication between family members and the therapist. Assessments in the home environment are encouraged due to the child's age and the need for family support and interaction. Parents are an excellent source of information about the child's current and past functional abilities. Observations of the child's interaction with family members, with objects and toys during play, and during functional daily living activities provides the therapist with valuable information about the child's need for intervention.

Morales, L. S., Cunningham, W. E., Brown, J. A., Liv, H., and Hays, R. D. (1999). Are Latinos less satisfied with communication by health care providers? *Journal of General Internal Medicine, 14*(7), 409-417.

OBJECTIVE: To examine association of patient ratings of communication by health care providers with patient language (English vs. Spanish) and ethnicity (Latino vs. white). METHODS: A random sample of patients receiving medical care from a physician group association concentrated on the West Coast was studied. A total of 7,093 English and Spanish language questionnaires were returned for an overall response rate of 59%. Five questions asking patients to rate communication by their health care providers were examined in this study. All five questions were administered with a seven-point response scale. MAIN RESULTS: We estimated the associations of satisfaction ratings with language (English vs. Spanish) and ethnicity (white vs. Latino) using ordinal logistic models, controlling for age and gender. Latinos responding in Spanish (Latino/Spanish) were significantly more dissatisfied compared with Latinos responding in English (Latino/English) and non-Latino whites responding in English (white) when asked about: (1) the medical staff listened to what they say (29% vs. 17% vs. 13% rated this "very poor," "poor," or "fair"; p <.01); (2) answers to their questions (27% vs. 16% vs. 12% p<.01); (3) explanations about prescribed medications (22% vs. 19% vs. 14% p<.01); (4) explanations about medical procedures and test results (36% vs. 21% vs. 17% p<.01); and (5) reassurances and support from their doctors and the office staff (37% vs. 23% vs. 18% p<.01). CONCLUSION: This study documents that Latino/Spanish respondents are significantly more dissatisfied with provider communication than Latino/English and white respondents. These results suggest Spanish-speaking Latinos may be at increased risk of lower quality of care and poor health outcomes. Efforts to improve the quality of communication with Spanish-speaking Latino patients in outpatient health care settings are needed.

Rivadeneyra, R., Elderkin-Thompson, V., Silver, R. C., and Waitzkin, H. (2000). Patient centeredness in medical encounters requiring an interpreter. *American Journal of Medicine, 108*(6), 470-474.

PURPOSE: Patient-centered interviewing is associated with greater patient satisfaction and better medical outcomes than traditional encounters, but actively seeking patients' views of their illnesses and encouraging patients to express expectations, thoughts, and feelings is difficult in encounters that require an interpreter. We sought to examine physicians' use of the patient-centered approach with patients who required the assistance of an interpreter. SUBJECTS AND METHODS: A cross-sectional sample of patients was video recorded during visits with physicians at a multi-ethnic, university-affiliated, primary care clinic. Nineteen medical encounters of Spanish-speaking patients who required an interpreter and 19 matched English-speaking encounters were coded for frequency that patients mentioned symptoms, feelings, expectations, and thoughts (collectively called "offers"). Physicians' responses were coded as ignoring, closed, open, or facilitative of further discussion. RESULTS: English-speaking patients made a mean (+/- SD) of 20 +/- 11 offers, compared with 7 +/- 4 for Spanish-speaking patients (P = 0.001). Spanish-speaking patients also were less likely to receive facilitation from their physicians and were more likely to have their comments ignored (P <0.005). English-speaking patients usually received an answer or acknowledgment to their questions even if the physicians did not encourage further discussion on the topic. CONCLUSION: Spanish-speaking patients are at a double

disadvantage in encounters with English-speaking physicians: these patients make fewer comments, and the ones they do make are more likely to be ignored. The communication difficulties may result in lower adherence rates and poorer medical outcomes among Spanish-speaking patients.

Roger, P., Code, C., and Sheard, C. (2000). Assessment and management of aphasia in a linguistically diverse society. *Asia Pacific Journal of Speech, Language & Hearing, 5*(1), 21-34.
This paper reports the results of a survey conducted in metropolitan Sydney, Australia, which was designed to look at the assessment and treatment practices adopted by speech-language pathologists when working with individuals with aphasia from language backgrounds other than English. The results of the survey highlight a number of areas of concern for speech-language pathologists. These include the need for a range of appropriate assessment and treatment materials, as well as the need to improve the way that speech-language pathologists and interpreters work cooperatively in the assessment and treatment of aphasia in a linguistically diverse environment. The study also revealed that many speech-language pathologists wish to improve aspects of their own knowledge and skills relevant to their work with individuals who come from a variety of language and cultural backgrounds. These needs, some of the ways in which they might be addressed, and their implications in terms of further research are discussed in detail.

Sarver, J., and Baker, D. W. (2000). Effect of language barriers on follow-up appointments after an emergency department visit. *Journal of General Internal Medicine, 15*(4), 256-264.
OBJECTIVE: To determine whether patients who encountered language barriers during an emergency department visit were less likely to be referred for a follow-up appointment and less likely to complete a recommended appointment. DESIGN: Cohort study. SETTING: Public hospital emergency department. PARTICIPANTS: English- and Spanish-speaking patients (N = 714) presenting with nonemergent medical problems. MEASUREMENTS AND MAIN RESULTS: Patients were interviewed to determine sociodemographic information, health status, whether an interpreter was used, and whether an interpreter should have been used. The dependent variables were referral for a follow-up appointment after the emergency department visit and appointment compliance, as determined by chart review and the hospital information system. The proportion of patients who received a follow-up appointment was 83% for those without language barriers, 75% for those who communicated through an interpreter, and 76% for those who said an interpreter should have been used but was not (P =. 05). In multivariate analysis, the adjusted odds ratio for not receiving a follow-up appointment was 1.92 (95% confidence interval [CI], 1.11 to 3.33) for patients who had an interpreter and 1.79 (95% CI, 1.00 to 3.23) for patients who said an interpreter should have been used (compared with patients without language barriers). Appointment compliance rates were similar for patients who communicated through an interpreter, those who said an interpreter should have been used but was not, and those without language barriers (60%, 54%, and 64%, respectively; P =.78). CONCLUSIONS: Language barriers may decrease the likelihood that a patient is given a follow-up appointment after an emergency department visit. However, patients who experienced language barriers were equally likely to comply with follow-up appointments.

Schur, C. L., and Albers, L. A. (1996). Language, sociodemographics, and health care use of Hispanic adults. *Journal of Health Care for the Poor & Underserved, 7*(2), 140-158.
This study examines the role of spoken language in access to health care for Hispanic adults. Analyzing the associations between personal characteristics and the use of Spanish as opposed to English reveals that monolingual Spanish speakers were more likely than others to be older, less educated, in poor health, uninsured, and in poverty. Further, Spanish speakers were less likely than English-speaking Hispanics to have a usual source of health care. Persons with no usual source of care were least likely to have seen a physician or to have had their blood pressure checked, whereas those with a regular doctor appeared to have the greatest access. The authors conclude that, whereas language is certainly associated with many barriers to health care, both economic well-being and having a usual source of care are of paramount importance for the Hispanic American population.

Takeuchi, D. T., Sue, S., and Yeh, M. (1995). Return rates and outcomes from ethnicity-specific mental health programs in Los Angeles. *American Journal of Public Health, 85*(5), 638-643.
OBJECTIVES. The present study compared the return rate, length of treatment, and treatment outcome of ethnic minority adults who received services from ethnicity-specific or mainstream programs. METHODS. The sample consisted of 1516 African Americans, 1888 Asian Americans, and 1306 Mexican Americans who used 1 of 36 predominantly White (mainstream) or 18 ethnicity-specific mental health centers in Los Angeles County over a 6-year period. Predictor variables included type of program (ethnicity specific vs mainstream), disorder, ethnic match (whether or not clients had a therapist of the same ethnicity), gender, age, and Medi-Cal eligibility. The criterion variables were return after one session, total number of sessions, and treatment outcome. RESULTS. The study indicated that ethnic clients who attended ethnicity-specific programs had a higher return rate and stayed in the treatment longer than those using mainstream services. The data analyses were less clear cut when treatment outcome was examined. CONCLUSIONS. The findings support the notion that ethnicity-specific programs seem to increase the continued use of mental health services among ethnic minority groups.

Tocher, T. M., and Larson, E. (1998). Quality of diabetes care for non-English-speaking patients: a comparative study. *Western Journal of Medicine 168*(6), 504-511.
To determine the quality of care provided to non-English-speaking patients with non-insulin-dependent (type 2) diabetes mellitus compared with English-speaking patients, we did a retrospective cohort study of 622 patients with type 2 diabetes, of whom 93 were non-English-speaking and 529 were English-speaking. They were patients at primary and specialty care clinics at a university and a county hospital, and the study was based on clinical and administrative database records with a 12-month follow-up. Professional interpreters were provided to all non-English-speaking patients. Patients were identified using interpreter services records, which reliably included all patients who did

not speak English. After adjusting for demographic differences, significantly more non-English-speaking patients received care that met the American Diabetes Association guidelines of 2 or more glycohemoglobin tests per year (odds ratio, 1.9; 95% confidence interval, 1.2-3.0) and 2 or more clinic visits per year (odds ratio, 2.6; 95% confidence interval, 1.2-5.4). More non-English-speaking patients had 1 or more dietary consultations (odds ratio, 2.8; 95% confidence interval, 1.3-6.1). No other significant differences were found in routine laboratory test use or in the number of ophthalmologic examinations. Outcome variables also did not differ, including standardized glycohemoglobin and other laboratory results, complication rates, use of health services, and total charges. At these institutions, the quality of diabetes care for non-English-speaking patients appear to be as good as, if not better than, for English-speaking patients. Physicians may be achieving these results through more frequent visits and laboratory testing.

Tocher, T. M., and Larson, E. B. (1999). Do physicians spend more time with non-English-speaking patients? *Journal of General Internal Medicine, 14*(5), 303-309.
OBJECTIVE: To determine whether physicians at a general internal medicine clinic spend more time with non-English-speaking patients. DESIGN: A time-motion study comparing physician time spent with non-English-speaking patients and time spent with English-speaking patients during 5 months of observation. We also tested physicians' perceptions of their time use with a questionnaire. SETTING: Primary care internal medicine clinic at a county hospital. PATIENTS/PARTICIPANTS: One hundred sixty-six established clinic patients, of whom 57 were non-English speaking and 109 were English speaking, and 15 attending physicians and 8 third-year resident physicians. MEASUREMENTS AND MAIN RESULTS: Outcome measures included total patient time in clinic, wait for first nurse or physician contact, time in contact with the nurse or physician, physician time spent on the visit, and physician perceptions of time use with non-English-speaking patients. After adjustment for demographic and comorbidity variables, non-English-speaking and English-speaking patients did not differ on any time-motion variables, including physician time spent on the visit (26.0 vs. 25.8 minutes). A significant number of clinic physicians believed that they spent more time during a visit with non-English-speaking patients (85.7%) and needed more time to address important issues during a visit (90. 4%), (both $p < .01$). Physicians did not perceive differences in the amount they accomplished during a visit with non-English-speaking patients. CONCLUSIONS: There were no differences in the time these physicians spent providing care to non-English-speaking patients and English-speaking patients. An important limitation of this study is that we were unable to measure quality of care provided or patients' satisfaction with their care. Physicians may believe that they are spending more time with non-English-speaking patients because of the challenges of language and cultural barriers.

Twinn, S. (1997). An exploratory study examining the influence of translation on the validity and reliability of qualitative data in nursing research. *Journal of Advanced Nursing, 26*(2), 418-423.
Although the complexity of undertaking qualitative research with non-English speaking informants has become increasingly recognized, few empirical studies exist which explore the influence of translation on the findings of the study. The aim of this exploratory study was therefore to examine the influence of translation on the reliability and validity of the findings of a qualitative research study. In-depth interviews were undertaken in Cantonese with a convenience sample of six women to explore their perceptions of factors influencing their uptake of Pap smears. Data analysis involved three stages. The first stage involved the translation and transcription of all the interviews into English independently by two translators as well as transcription into Chinese by a third researcher. The second stage involved content analysis of the three data sets to develop categories and themes and the third stage involved a comparison of the categories and themes generated from the Chinese and English data sets. Despite no significant differences in the major categories generated from the Chinese and English data, some minor differences were identified in the themes generated from the data. More significantly the results of the study demonstrated some important issues to consider when using translation in qualitative research, in particular the complexity of managing data when no equivalent word exists in the target language and the influence of the grammatical style on the analysis. In addition the findings raise questions about the significance of the conceptual framework of the research design and sampling to the validity of the study. The importance of using only one translator to maximize the reliability of the study was also demonstrated. In addition the author suggests the findings demonstrate particular problems in using translation in phenomenological research designs.

Wardin, K. (1996). A comparison of verbal evaluation of clients with limited English proficiency and English-speaking clients in physical rehabilitation settings. *American Journal of Occupational Therapy, 50*(10), 816-825.
OBJECTIVES: Recent literature has emphasized collaborative goal setting between therapists and clients and has sought to increase therapists' awareness of treating in cross-cultural settings. How occupational therapists verbally evaluate clients with limited English proficiency (LEP) is important to these topics and underdeveloped in the literature. METHOD: Seventy-four occupational therapists working with adult clients with LEP in physical rehabilitation settings in large U.S. metropolitan areas were surveyed to discover the time taken, methods used, and themes surrounding verbal evaluation, including use of translators and respondents' linguistic abilities. A follow-up telephone interview of 12 survey respondents clarified these discoveries. RESULTS: Respondents reported taking 11.5 min more to verbally evaluate clients with LEP than for English-speaking clients and reported understanding the treatment needs of clients with LEP after verbal evaluation less well. Respondents with higher abilities in second languages reported better understanding of clients' needs than monolingual respondents. CONCLUSION: Methods for cross-lingual verbal evaluation need to be identified so that therapists can collaborate with clients with LEP in planning culturally sensitive treatment.

Woloshin, S., Bickell, N. A., Schwartz, L., Gany, F., and Welch, H. G. (1995). Language barriers in medicine in the United States. *Journal of the American Medical Association, 273*(9), 724-728.
Review of 1995 status of interpreter services in U.S. health care

system, the clinical impact of inadequate interpretation, and the legislative responses to the language needs of patients with limited English proficiency.

Woloshin, S., Schwartz, L. M., Katz, S. J., and Welch, H. G. (1997). Is language a barrier to the use of preventive services? *Journal of General Internal Medicine, 12*(8), 472-477.
OBJECTIVE: To isolate the effect of spoken language from financial barriers to care, we examined the relation of language to use of preventive services in a system with universal access. DESIGN: Cross-sectional survey. SETTING: Household population of women living in Ontario, Canada, in 1990. PARTICIPANTS: Subjects were 22,448 women completing the 1990 Ontario Health Survey, a population-based random sample of households. MEASUREMENTS AND MAIN RESULTS: We defined language as the language spoken in the home and assessed self-reported receipt of breast examination, mammogram and Pap testing. We used logistic regression to calculate odds ratios for each service adjusting for potential sources of confounding: socio-economic characteristics, contact with the health care system, and measures reflecting culture. Ten percent of the women spoke a non-English language at home (4% French, 6% other). After adjustment, compared with English speakers, French-speaking women were significantly less likely to receive breast exams or mammography, and other language speakers were less likely to receive Pap testing. CONCLUSIONS: Women whose main spoken language was not English were less likely to receive important preventive services. Improving communication with patients with limited English may enhance participation in screening programs.

Xuo, D., and Fagan, M. J. (1999). Satisfaction with methods of Spanish interpretation in an ambulatory care clinic. *Journal of General Internal Medicine, 14*(9), 547-550.
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.

Organizational Supports for Cultural Competence

Agger-Gupta, N. (2001). *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 organization change and the growth of a new profession.* Unpublished Ph.D. Dissertation, The Fielding Graduate Institute, Santa Barbara.
This interdisciplinary grounded theory qualitative study was about the necessary organizational contexts and decision-making processes leading to the creation of professional healthcare interpreter services in Canada and the United States. The study developed theoretical frameworks from an analysis of audio-taped on-site interviews from a convenience sampling of health care executives and managers, health care clinicians, and health interpreting experts in 14 health organizations in Calgary, Vancouver, Seattle, Chicago, Boston, Worcester, Oakland. The stories about the development of interpreter services in their site, were transcribed and analyzed. A complex variety of compelling reasons for establishing dedicated interpreter services were found. Details differed, particularly between American and Canadian sites, but common patterns of obstacles, challenges, essential prerequisite conditions, and catalysts, were identified. While the prerequisite conditions by themselves were inadequate, specific catalysts appear to have created the necessary initial momentum for the organization to launch an interpreter service, including legal, legislative and "trouble case" situations. The elements determining the course of this change process in the health organizations appears to occur within a matrix of at least five structural and contextual domain layers. A four-stage model of interpreter services development emerged from participants' stories. Development typically moved from a stage of "making do" without interpreters, to a "launch" stage, followed by a longer period of "normative growth and maturation" of the interpreter service. A number of established interpreter services included in this study appeared to be highly successful. At these sites, the organization's executives championed the interpreter service's leadership, for the entire organization, toward what appears to be a fourth stage of "culturally competent health care," characterized by a number of indicators.

Armenta, F. (1993). *Latinos and group parent training: a research study with implications for increasing parental participation in group parent training programs.* Unpublished Ph.D. Dissertation, University of California Los Angeles.
Parent training is now considered an important community intervention to prevent and treat problems like child abuse and juvenile delinquency. This descriptive study explored factors that are believed to be influential in the participation of Latino parents in parent training programs. Hypotheses about the potential influence of acculturation, social class and parental stress were tested in terms of their relationship to a variety of potential

influencing forces (prior parental knowledge about training programs, recruitment procedures, and program, group and instructor characteristics). Ninety Mexican and Mexican-American mothers of children ages five to nine participated. Results showed that acculturation and social class had uneven effects on various factors. Stress did not influence program interest; however, Latinos reported higher parental stress than Anglo norms. The results showed a very low level of awareness of parent training programs among Latino parents, suggesting the need for extensive education about parent training in Latino communities. Based on factors that parents indicated would most positively influence their participation, a cooperative, systemic involvement approach is most likely to be successful. The approach would include educating such valued community agents as teachers, doctors, social workers and clergy to personally promote participation, possibly using simply written materials like pamphlets and flyers; holding programs in Spanish and English at schools, colleges and community centers at flexible hours for five to seven weeks for 30-60 minutes per session; using a variety of attendance incentives and such necessary supports as the provision of child care and transportation; appealing to child and family benefits in the titles of the programs; and working to insure that non-participating spouses are supportive of the participating parent. Instructor educational background was found to be highly important, as was instructor's knowledge of program content, respectful attitude toward parents and being a parent themselves. Results are discussed in conjunction with models of health service utilization and culturally competent service delivery.

Banner, R. O., DeCambra, H., Enos, R., Gotay, C., Hammond, O. W., Hedlung, N., Issell, B. F., Matsunaga, D. S., and Tsark, J. A. (1995). A breast and cervical cancer project in a Native Hawaiian community: Wai'anae Cancer Research Project. ***Preventive Medicine, 24*****(5), 447-453**.
BACKGROUND: This article describes a breast and cervical cancer control project in a Native Hawaiian community and presents preliminary findings from its first year. The project is community driven, with Native Hawaiian community investigators and advisors involved in all phases of the research project. Its purpose is to test the effectiveness of a culturally appropriate intervention as a means of increasing breast and cervical cancer screening practices among Native Hawaiian women. METHODS: This article discusses the process of community participation in the development of a baseline survey as well as selected findings from that survey. A baseline telephone survey was conducted to obtain an initial assessment of community knowledge, attitudes, and behavior related to cancer. Community representatives were an integral part of the research team that planned and implemented the survey. RESULTS: A total of 1,260 women drawn equally from the study and the control communities participated in the survey. A majority of those surveyed in both communities indicated adherence to cancer screening recommendations. Seventy-three percent of the women reported having obtained a Pap test during the past two years. Fifty-nine percent of women over 40 years of age reported having had a mammogram during the past two years. Twenty-eight percent reported having used Hawaiian remedies within the past year. Thirty-six percent of the women reported encouraging others to obtain cancer screening services. DISCUSSION: Though a majority of the target population are following cancer screening guidelines, a significant minority are not. While the project intervention aims to change the screening behavior of women not currently getting cancer screening, it plans to do so by enlisting the women already in compliance to reach others in their social networks who are currently not getting cancer screening. The involvement of community representatives, working alongside researchers, in baseline survey planning helped assure the survey was acceptable to the participants and the community as a whole. This process is illustrative of a participatory research commitment which underlies success in the early phase of this Native Hawaiian research project.

Dimas, J. M. (2003). ***A systematic approach to implementing cultural competence assessment and training of providers in a managed care setting.*** **Paper presented at the Third national conference on quality health care for culturally diverse populations: advancing effective health care through systems development, data, and measurement, Chicago, IL.**
This study examines the feasibility and effectiveness of implementing cultural competency assessment and training for providers as part of a systems approach to deal with culturally competent health care in a managed care setting. The Alameda Alliance for Health will conduct assessments of health care providers' cultural competency, provide training, examine whether level of cultural competency is related to processes and outcomes of care, examine business-related considerations in effective implementation of assessment and training, and institutionalize ongoing assessment and training.

Frayne, S. M., Burns, R. B., Hardt, E. J., Rosen, A. K., and Moskowitz, M. A. (1996). The exclusion of non-English-speaking persons from research. ***Journal of General Internal Medicine, 11*****(1), 39-43**.
OBJECTIVE: We sought to determine how often non English-speaking (NES) persons are excluded from medical research. DESIGN: Self-administered survey. PARTICIPANTS: We identified all original investigations on provider-patient relations published in major U.S. journals from 1989 through 1991, whose methodology is involved in direct interaction between researcher and subject (N = 216). Each study's corresponding author was surveyed; 81% responded. MEASUREMENTS AND MAIN RESULTS: Of the 172 respondents, 22% included NES persons; among these includers, 16% had not considered the issue during the study design process, and 32% thought including the NES had affected their study results. Among the 40% who were excluded the NES (excluders), the most common reason was not having thought of the issue (51%), followed by translation issues and recruitment of bilingual staff. The remaining 35% (others) indicated that there were no NES persons in their study areas. CONCLUSIONS: Many persons are commonly excluded from provider-patient communication studies appearing in influential journals, potentially limiting the generalizability of study findings. Because they are often excluded through oversight, heightened awareness among researchers and granting institutions, along with the development of valid instruments unvaried languages, may increase representation of the non-English-speaking subjects in research.

Giacomelli, J. (1997). A review of health interpreter services in a rural community: a total quality management approach. *Australian Journal of Rural Health, 5*(3), 158-164.
The current focus in health care is on total quality management (TQM), a process that involves ongoing quality improvement and benefits both internal and external customers. In order to comply with the values of TQM, the Griffith Murrumbidgee Health Service set up a team to review the use of interpreters in a healthcare setting. Staff from a number of wards/units filled out a survey sheet regarding interpreter services for each patient/client presenting for service during a one-month period. The results showed that (i) there was a marked tendency by staff to use non-accredited interpreters; and (ii) staff who used non-accredited interpreters tended to inappropriately assess patient/client interpreting needs and to be unfamiliar with the Health Care Interpreter Policy. The TQM team subsequently devised several strategies for change.

Glover, S. H., Shi, L., and Samuels, M. E. (1997). African American administrators in community/migrant health centers. *Journal of Health Care for the Poor & Underserved, 8*(2), 153-169.
Community and migrant health centers (CHC/MHCs) play a secondary role as avenues for the development of minority and women health care professionals, groups traditionally underrepresented in administrative and managerial positions within the health care system. This paper focuses on the role of CHC/MHCs in eliminating the barriers that typically limit the professional advancement of these groups. In a survey of both rural and urban CHC/MHC administrators, it was found that CHC/MHCs have higher percentages of minorities in top management positions than general management but do not necessarily reflect the minority composition of those being served. Of the CHC/MHC administrators, 20 percent were African American, less than the population served (31 percent) but greater than the percentage of African Americans in the general U.S. population (12 percent). This suggests that CHC/MHCs have partially met the original goal of upward mobility and that there is room for improvement.

Hagland, M. M., Sabatino, F., and Sherer, J. L. (1993). New waves: hospitals struggle to meet the challenge of multiculturalism now - and in the next generation. *Hospitals, 67*(10), 22-31.
This article looks at two critical aspects of multiculturalism: hospitals as employers and as providers in a diverse society. Experts believe the most immediate priority on the labor front is encouraging minorities to enter health care administration and clinical care. Examples of how hospitals tackle the challenge of serving multicultural patients are given.

Johnson, A. E., and Baboila, G. V. (1996). Integrating culture and healing: meeting the health care needs of a multicultural community. *Minnesota Medicine, 79*(5), 41-45.
Delivering health care to culturally diverse patients is fast becoming an integral part of patient care-a change driven by shifting demographics in Minnesota and especially in the Twin Cities metro area. At United Hospital and Children's Health Care-St. Paul, ethnographic research is being used to create cross-cultural health care information systems that address the needs of providers and patients. These include an easy-to-use computer-based information system, brown bag seminars, and cross-cultural skills training. This article discusses that hospital's efforts to identify provider needs, collect cultural information, and disseminate that information in a manner that supports quality and cost-effective health care delivery.

Kaufert, J. M., and Koolage, W. W. (1984). Role conflict among "culture brokers": the experience of Native Canadian medical interpreters. *Social Science & Medicine, 18*(3), 283-286.
An examination of role conflicts among Cree and Saulteau language speaking interpreters working in two urban hospitals providing tertiary medical care services to native Canadians from remote northern communities, based on 18 months of participant observation and analysis of 4,000 videotaped clinical consultations. An inventory of roles and situational contexts characterizing the interpreter's work in this setting is developed. Sources of role conflict were associated with cross-pressures in their work as language interpreters, culture brokers, and patient advocates.

Kaufert, J. M., Putsch, R. W., and Lavallee, M. (1998). Experience of Aboriginal health interpreters in mediation of conflicting values in end-of-life decision making. *International Journal of Circumpolar Health, 57*(Suppl 1), 43-48.
This paper examines the experience of Aboriginal medical interpreters working with terminally ill patients, family members, and care providers, and serving as mediators when cultural values and decision frameworks are in conflict. The discussion is based on a qualitative analysis of interaction in 12 patient encounters which were observed and for which transcripts were made of the discourse and interaction. Each case involved intervention by a professional interpreter. Interaction involved the signing of advance directives or other consent agreements in situations in which Aboriginal patients were terminally ill. Analysis will focus on the cultural dimension of value conflict situations, particularly in relation to issues of individual autonomy and biomedical emphasis on truth-telling in the communication of terminal prognosis.

Koseki, L. K. (1996). A study of utilization and satisfaction: implications for cultural concepts and design in aging services. *Journal of Aging & Social Policy, 8*(1), 59-75.
This article describes the utilization and satisfaction patterns of Native Hawaiian elders with the Ke Ola Pono No Na Kupuna ("Good Health and Living for the Elderly") project funded under Title VI-B of the Older Americans Act. Data were collected through a self-administered questionnaire. Its unique, one of a kind, culturally specific program, which includes traditional Native Hawaiian meals, has a number of implications for policy considerations in designing aging programs that can serve ethnic minority aged more effectively. Changes in current federal policy that would enable federally mandated aspects of programs to provide for greater flexibility in providing culturally relevant programs and services for ethnic minorities would help to surmount some of the current problems and barriers to service delivery and utilization by ethnic minority groups. Allowing for greater involvement of ethnic minorities in program design will help to assure culturally relevant and appropriate activities and services and may increase the likelihood of success due to a

sense of personal ownership and self-responsibility on the part of those involved.

Paez, K. (2002). *Planning culturally and linguistically appropriate services: a guide for managed care plans*. Baltimore: Centers for Medicare & Medicaid Services and Agency for Healthcare Research and Quality.
This guide is designed to assist health plans in 1) assessing the diversity of their population and their current level of cultural and linguistic competence, 2) identifying feasible priority areas for improvement of culturally and linguistically appropriate services (CLAS) based on the assessment, and 3) developing a plan to implement cost-effective and manageable interventions to address these priority areas. Part 1 of the guide addresses four aspects of the assessment process: 1) preparing the CLAS Assessment and Planning Team, 2) assessing the diversity of members and the community, 3) assessing the managed care plan, and 4) identifying gaps, determining priorities, and briefing senior leaders. Part 2 offers an overview of three areas of concentration for improving CLAS: 1) providing linguistic services (oral and written), 2) improving cultural competence, and 3) developing a diverse workforce. Appendices include reprints of cultural competence assessment tools.

Ratliff, S. S. (1999). Waterfalls and geysers: the development of diversity awareness at Children's Hospital. *Journal of Nursing Care Quality, 13*(3), 36-46.
The development of diversity awareness at Children's Hospital in Columbus, Ohio, has been a work in progress since the early 1980s. The interface of administration and individual initiatives ("waterfalls" and "geysers") has resulted in projects ranging from major international exchange programs to noontime Spanish language classes. This article recounts the journey from a parochial focus to a consciousness of multiculturalism in virtually all aspects of hospital interaction.

Resick, L. K., Taylor, C. A., Carroll, T. L., D'Antonio, J. A., and de Chesnay, M. (1997). Establishing a nurse-managed wellness clinic in a predominantly older African American inner-city high rise: an advanced practice nursing project. *Nursing Administration Quarterly, 21*(4), 47-54.
With funding from a U.S. Department of Housing and Urban Development contract awarded to a private university, advanced practice nurse faculty established a nurse-managed wellness clinic in an apartment building populated by predominantly African American older people. Ethnographic methods were used to ensure culturally competent care. The clinic provided nursing, pharmacy, and health sciences faculty and students with community-focused clinical experiences as interdisciplinary team members.

Salimbene, S. (1999). Cultural competence: a priority for performance improvement action. *Journal of Nursing Care Quality, 13*(3), 23-35.
An increase in diversity that has been accompanied by a sharp decrease in white Caucasian "mainstream" culture has made cultural competence a priority in nursing performance improvement. Each culturally diverse group defines health and illness differently. Most have a long and well-established tradition of folk health beliefs and practices, which strongly impact members' reactions to American standards of care—an influence on both patient satisfaction and treatment compliance. This article describes the culture—health care relationship and lists 10 indicators for measuring cultural competency. It presents a practical, systemwide model for the improvement of nursing care quality through enhanced cultural competency and lists resources, which can be used to both support and improve cultural competency throughout an integrated health care system.

Simpson, E., Gawron, T., Mull, D., and Walker, A. P. (1994). A Spanish-language prenatal family health evaluation questionnaire: construction and pilot implementation. *Journal of Genetic Counseling, 3*(1), 39-62.
The Family Planning Council of America has constructed and implemented a genetic history questionnaire, the Family Health Evaluation, to elicit risk factors, to increase clients' knowledge about reproductive choices, and to improve access to genetic services. The objective of the present study was to improve access to genetic services. The objective of the present study was to develop and implement a Spanish-language version of the Family Health Evaluation for data collection and risk assessment. The content of the Family Health Evaluation was modified to more clearly reflect the risks, exposures, and medical needs of a Hispanic, largely Mexican-American, population. In the present study, the questionnaire was administered to women presenting for prenatal care. The data collected in this pilot study indicate that the questionnaire is effective in identifying individuals and families who would benefit from receiving additional information about a medical condition in their families, from genetic counseling or from a referral for high-resolution ultrasound or other diagnostic procedures.

Stanton, B., Black, M., Feigelman, S., Ricardo, I., Galbraith, J., Li, X., Kaljee, L., Keane, V., and Nesbitt, R. (1995). Development of a culturally, theoretically and developmentally based survey instrument for assessing risk behaviors among African-American early adolescents living in urban low-income neighborhoods. *AIDS Education & Prevention, 7*(2), 160-177.
The creation of developmentally and culturally appropriate data-gathering instruments is necessary as health researchers and interventionists expand their investigations to community-based minority adolescent populations. The creation of such instruments is a complex process, requiring the integration of multiple data-gathering and analytic approaches. Recent efforts have delineated several issues to be considered in survey design for minority populations: community collaboration; problem conceptualization; application of the presumed model of behavioral change; and dialect and format of delivery. This paper describes the process of creating a culturally and developmentally appropriate, theoretically grounded instrument for use in monitoring the impact of an AIDS educational intervention on the behavior and health outcomes of urban African-American preadolescents and early adolescents. Three phases of research were involved: preliminary (and ongoing) ethnographic research including extensive participant observation, as well as, focus group and individual interviews with 65 youths; construction and testing of the preliminary instrument involving two waves of pilot testing (N1 = 57; N2 = 45); and, finalization of the instru-

ment including reliability testing and assessment of tool constructs and selection of the mode of delivery (involving two additional waves of pilot testing (N3 = 91; N4 = 351). The essential role played by the community in all phases of instrument development is underscored.

Stolk, Y., Ziguras, S., Saunders, T., Garlick, R., Stuart, G., and Coffey, G. (1998). Lowering the language barrier in an acute psychiatric setting. *Australian & New Zealand Journal of Psychiatry, 32*(3), 434-440.

OBJECTIVES: The aim of this paper is to investigate the effectiveness of a training and policy strategy to improve communication opportunities in an acute inpatient unit for patients of non-English-speaking background (NESB) with low English proficiency. METHOD: A pre- and post-intervention design involved: (i) a survey of the multilingual skills of 80 clinical staff; (ii) recording of patients' ethnic background and proficiency; (iii) pre- and post-intervention data collection of the main outcome measure (communications with patients in a language other than English [LOTE]); and (iv) staff training, and active encouragement, in interpreter use. English proficiency was assessed using the population census proficiency question. RESULTS: Of 257 admissions, 33% were of NESB and 19% preferred to speak a LOTE. The staff survey yielded a 49% return rate and showed that, of 11 LOTEs spoken by patients, seven were also spoken by 17 of the staff. Twenty-nine percent of staff were not clinically proficient in these languages. Compared to the NESB population, a higher proportion of NESB patients rated low on proficiency. Following the intervention, interpreter bookings and booking duration increased significantly. CONCLUSIONS: A standard training package and a policy promoting interpreter use improved communication opportunities in an acute setting where language needs are typically poorly met. Failure to ensure effective communication raises risks of misdiagnosis and inappropriate treatment. By measuring patients' proficiency directly, the present study identified a higher level of need for interpreter services than estimated by past reports.

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