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**Third Cross-Cultural Health Care Conference:
Collaborative and Multidisciplinary Interventions; February 8-9, 2013
- and -
Hawai'i Pharmacists Association Annual Meeting 2013; April 13-14, 2013**

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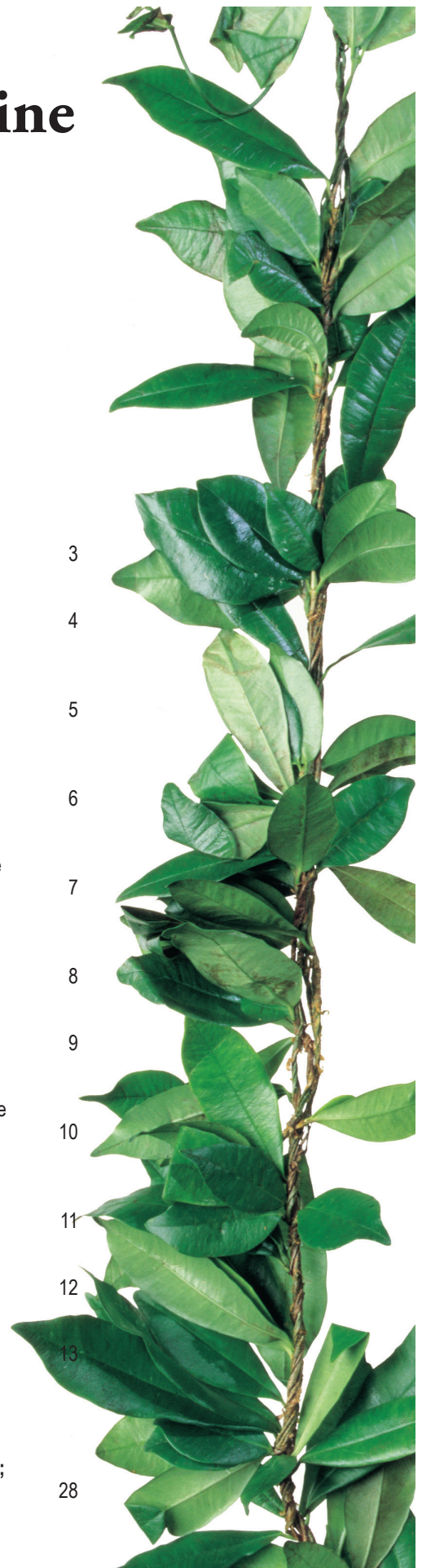
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Third Cross-Cultural Health Care Conference: Collaborative and Multidisciplinary Interventions; February 8-9, 2013

Maria B.J. Chun PhD, CHC, CPC-A and Karen Lubimir MD; Co-Guest Editors

The John A. Burns School of Medicine (JABSOM) Department of Surgery held its 3rd Cross-Cultural Health Care Conference on February 8-9, 2013 at the Ala Moana Hotel. Reflective of its theme of collaborative and multidisciplinary interventions, 200 professionals and trainees with diverse backgrounds registered for the conference. Disciplines represented include medicine, psychology, public health, nursing, social work, and healthcare administration. Three-quarters of the attendees were from the state of Hawai'i (O'ahu and our Neighbor Islands) with the remaining 25 percent from US Mainland and international destinations.

Dr. Danny Takanishi, Jr., Conference Co-Chair, opened the event by introducing Dr. Mark Hochberg, New York University Vice-Chair of Surgery, who presented a professionalism curriculum he developed for surgical residents, which includes a cultural component. He was followed by Dr. Robert Like from the University of Medicine and Dentistry of New Jersey, who provided best and promising practices on educating clinicians to provide culturally competent patient-centered care.

Other speakers included JABSOM's Chair of Native Hawaiian Health, Dr. Keawe Kaholokula who discussed how to conduct community-based participatory research with native populations, and Dean Jerris Hedges (along with co-presenters Dr. Bruce Shiramizu and Dr. Todd Seto), who shared the health disparities and cross-cultural research resources available through RCMI Multidisciplinary and Translational Research Infrastructure Expansion (RMATRIX) in Hawai'i Program.

Dr. Martina Kamaka and Dr. Winona Lee described the Native Hawaiian Center of Excellence (NHCOE) and the other cultural programs overseen by the JABSOM Department of Native Hawaiian Health that emphasize cultural understanding as a path to better health care delivery. Internationally renowned speaker Dr. Joseph Betancourt shared his work on the Cross-Cultural Care Survey and efforts to measure the efficacy of cultural training in different settings.

Among the 40 presenters were some of JABSOM's faculty, fellows, residents, and medical students. Dr. Lauren Okamoto and Dr. Anna Tamai shared their work on palliative care for

Marshall Islanders in Hawai'i. Dr. Kara Wong Ramsay presented her work with Chuukese patients and the use of different interpretation methods, and medical student Jacques Ambrose (MS-3) discussed findings from his review of ACGME cultural competency requirements.

Dean Hedges observed, "We owe much to co-conference chairs Dr. Maria Chun and Dr. Danny Takanishi, who have brought our community together, along with national and international experts in cross-cultural health care." He continued, "Collectively, the gathering represented a phenomenal exchange of perspectives and expertise. JABSOM is honored by this effort to advance health and humbled by the work of those who have developed this field of knowledge."

Student scholarships were sponsored by Dean Hedges (University of Hawai'i [UH] JABSOM), Dean Mary Boland (UH School of Nursing and Dental Hygiene) and Dean Maenette Benham (UH Hawai'i inuiakea School of Hawaiian Knowledge), as well as UH Shidler College of Business (via Dr. Dana Alden), UH JABSOM Department of Geriatric Medicine, UH JABSOM Office of Public Health Studies, UH Department of Psychology, and UH Office of Student Equity Excellence and Diversity (SEED), Pizza Hut Hawai'i, and Big City Diner. Funding for the conference was also received through a grant from The Doctors Company Foundation and a donation from the Hawai'i Medical Service Association (HMSA).

A biennial event, the next conference will be held in January 2015. Please visit the CCHC Website (<http://cchc-conference.com>) for more information about the conference.

Several of the conference presentations and poster abstracts are highlighted in this supplement.

Conflict of Interest

None of the authors report a conflict of interest.

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**Third Cross-Cultural Health Care Conference:
Collaborative and Multidisciplinary Interventions, February 8-9, 2013**

— Invited Speaker —

**RMATRIX: Cross-Cultural Research Mentoring —
Cultural and Interdisciplinary Features**

Jerris R. Hedges MD, MS, MMM; Todd B. Seto MD, MPH; Bruce Shiramizu MD

The reasons for the persistent, and sometime substantial, racial/ethnic health disparities among minority populations are likely related to differences in individual, societal, and cultural factors. Efforts to reduce these disparities likely require a culturally appropriate and interdisciplinary approach by investigators. The goal of the University of Hawai'i's (UH) RCMI Multidisciplinary and Translational Research Infrastructure Expansion (RMATRIX) program (NIMHD U54MD007584, PI: Hedges) is to support investigators who are working to reduce health disparities, particularly among Native Hawaiian and Other Pacific Islanders (NHOPI) and in two areas: Nutrition and Metabolic Health, and Perinatal Growth and Development. The RMATRIX Key Functions provide infrastructure support to our multidisciplinary investigators. For example, the Research Design and Biostatistics Key Function successfully partner with investigators within UH John A. Burns School of Medicine, across UH, and in the community. Over the past year, the team has collaborated on 36 extramural grants, authored/co-authored 27 manuscripts, and consulted on 127

projects. Similarly, the Hawai'i Biospecimen Repository, part of the Biomedical Informatics Key Function consists of >7,500 placental samples with clinical data that has been the basis for a number of interdisciplinary collaborations. An example of a young investigator-initiated pilot study supported by RMATRIX includes the The *Ola Hou* Pilot Study (PI: Kaimi Sinclair, PhD), which is a community-based participatory research study evaluating the impact of hula on cardio-metabolic health and hypertension. Looking ahead, RMATRIX will continue to support investigators through its key functions, mentorship to young investigators, and opportunities for research through the Pilot Projects program, with the goal to reduce health disparities among NHOPI.

Conflict of Interest
None of the authors report a conflict of interest.

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— Invited Speaker —

The New York University Surgical Professionalism and Interpersonal Communication Education (SPICE) Curriculum

Mark S. Hochberg MD

Teaching professionalism effectively to fully engaged general surgery residents is a challenge. Have we been successful and has it led to a change in resident culture? Our goal is to assess whether professionalism has taken root among our surgical residents. Evidence is derived from three studies: (1) annual subjective self-assessments of residents' professionalism abilities, (2) objective metrics of demonstrated professionalism skills by one resident cohort rated by standardized patients (SPs) annually using the objective structured clinical examination (OSCE) tool, and (3) a national survey of the Surgical Professionalism and Interpersonal Communication Education (SPICE) Study Group. Study #1) Aggregate perceived professionalism among surgical residents shows a statistically significant positive trend

over time ($P=.016$). Study #2) One cohort of residents followed over three years showed improvement in their professionalism skills as rated by SPs. Study #3) 41 members of the national SPICE Study Group rated their residents' professionalism skills "slightly better" or "much better" compared to five years ago ($P=.001$). All three assessment methods suggest that residents feel increasingly prepared to effectively deal with the professionalism challenges they face compared to three years ago.

Conflict of Interest
The author reports no conflict of interest.

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**Third Cross-Cultural Health Care Conference:
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— Invited Speaker —

Community-Based Participatory Research (CBPR) with Native and Pacific Populations: Addressing Cultural Competency Issues

Joseph Keawe‘aimoku Kaholokula PhD

The principles/aims of community-based participatory research (CBPR) are well-suited to address cultural competency in research for the following reasons: It accounts for the culture/diversity of a population when developing research ideas and conducting research and it ensures that the research has real-world applications and meets the target population’s socio-cultural/linguistic needs. The goals of CBPR and cultural competency directives share key aspirations, which include social justice and health equity, appreciation for diversity, critical thinking, open communication and dialogue, cooperation, and successful conflict resolution. CBPR approaches can also avoid the stereotyping of racial/ethnic and socially disadvantaged populations and account for important within-group differences and contextual factors (eg, socio-economic circumstances). A “best practice” model of CBPR in Native Hawaiian and Pacific Islander communities has emerged from the community-academic partnership of the PILI ‘Ohana Project (POP). The POP partners are the Department of Native Hawaiian Health at the University of Hawai‘i at Mānoa,

Hawai‘i Maoli of the Association of Hawaiian Civic Clubs, Kula no nā Po‘e Hawai‘i, Ke Ola Mamo, and Kōkua Kalihi Valley Comprehensive Family Services. POP’s mission is to eliminate obesity and obesity-related disparities in Hawai‘i. POP developed two culturally-relevant, community-placed, and evidence-based interventions: The PILI Lifestyle Program and the Partners in Care diabetes self-management program. Factors contributing to POP’s success are the shared vision, mission, and values of the community and academic partners, a co-equal and co-learning research environment, and mutual respect amongst the partners. As a result, the partners built the capacity, social capital, and critical consciousness necessary to effectively address their community-driven health concerns.

Conflict of Interest
The author reports no conflict of interest.

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**Third Cross-Cultural Health Care Conference:
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— Invited Speaker —

Addressing Disparities in Healthcare: What Do Health Literacy and Cultural Competence Have in Common?

Désirée Lie MD, MSED

Cultural differences between patient and provider contribute to adverse health outcomes through poor communication, value conflicts, and disparate concepts of health and illness. Low health literacy contributes to disparities through misunderstanding and poor adherence. Recent studies and reports focus on interventions to address the communication gap between patients and providers, to redefine the responsibility for closing the gap. Health professions curricula can address both cross-cultural care and close the literacy gap by sharing a common goal of disparity reduction. Instructional topics that cross over include communication skills, bias and stereotyping, community strategies, and the culture of medicine. For example, teaching in health literacy may vary patient presentation to include factors such as limited English proficiency, race/ethnicity, sexual identity or orientation, religious affiliation, health beliefs, age, or gender to address cross-cultural issues. Similarly, existing cultural competency curricula may incorporate limited health literacy as a component of patient or community assessment.

Communication tools from each field may be deployed in common. Such tools include the explanatory model of illness, the “teach-back” method, brown bag medication review, and using plain language, among others. Health professions students should be able to access a communication toolbox to select the best tool that minimizes the risk of poor health outcomes due to cross-cultural or health literacy issues. A health literate and culturally competent organization considers its clients stakeholders, identifies high risk clients, aims for equity, designs accessible materials, prepares its workforce for diversity, demonstrates leadership in achieving equity, and actively plans, evaluates, and improves its client/patient outcomes.

Conflict of Interest
The author reports no conflict of interest.

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**Third Cross-Cultural Health Care Conference:
Collaborative and Multidisciplinary Interventions, February 8-9, 2013**

— Invited Speaker —

Educating Clinicians to Provide Culturally Competent Patient-Centered Care: Best and Promising Practices

Robert C. Like MD, MS

Hawai‘i has been a national leader in recognizing the importance of providing culturally responsive and effective care. The reasons for this relate to the same levers of change driving cultural competency efforts around the United States and globally. These include: increasing demographic diversity and immigration; inequalities in health and health care; health care legislation and policy initiatives; standards, regulations, and accreditation requirements; professional education and training resources; public and private sector funding; communities of practice and centers of excellence; market forces and the business case; and liability and risk management. Medical schools and other health professions disciplines have identified the provision of culturally competent patient-centered care as an important priority and are integrating relevant content and clinical experiences into their undergraduate, postgraduate, and continuing education programs. Various adult learning strategies are being employed, and an evidence base is accumulating about the effectiveness and outcomes of training thanks to the availability of a growing number of cultural competency assessment tools. The cultural

competency field, however, has generated important critiques from socio-behavioral scientists that need to be addressed including: poorly designed educational programs; flawed curricular content; stereotyping and limited cultural nuancing; and a lack of faculty with expertise in these subject areas. There have been many lessons learned about the “do’s and don’ts” of training, and “best and promising practices” need to be adopted. Capacity building relating to educating investigators about culturally competent research, and assisting health care organizations to address the Office of Minority Health, National Standards for Culturally and Linguistically Appropriate Services (CLAS) are essential as health care reform proceeds.

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**Third Cross-Cultural Health Care Conference:
Collaborative and Multidisciplinary Interventions, February 8-9, 2013**

— Invited Speaker —

Utilization of Qualitative Methods in Cross Cultural Research

Elyse R. Park PhD, MPH

The objective of this seminar was to provide an overview of qualitative methods, with a focus on how qualitative methods could be used in cross-cultural research. Qualitative research was operationalized, and differentiated from quantitative research. Qualitative research can be conducted as a stand-alone exploratory study, to inform survey development or elucidate survey findings, or to inform program development (curriculum, interventions). The seminar covered the main stages and tasks of qualitative research, including (1) developing a research question, (2) selecting data collection modality, (3) recruitment and sampling, (4) interview tools, and (5) data analysis. Criteria for quality qualitative research were reviewed, with an emphasis on design requirements needed in order to publish qualitative

research. Examples of use of qualitative research were given to illustrate the of qualitative research and stages and tasks of qualitative research, which included exploring cultural attitudes about breast health, racial differences in perspectives on the genetics of nicotine addiction susceptibility, racial disparities in mental healthcare utilization among lung cancer patients, and development of a resiliency program for medical interpreters.

Conflict of Interest
The author reports no conflict of interest.

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Personalizing Recovery-Oriented Treatment Plans: Embedding Multicultural Competence in Usual Standards for Community-Based Practices

Ann-Marie Yamada PhD

Culturally competent practice allows providers to become aware of who their patients are and what's important to them. It follows that providers must be able to elicit the "patient perspective". The Cultural Awareness, Skill, & Knowledge (C-ASK) Interview Tool was designed by the author using a framework of social determinants of health to help providers to get to know their patients. The C-ASK may be used with a variety of patients; however, the interview tool was developed to capture issues relevant to persons with severe mental illnesses as this population faces many challenges in receiving services for a myriad of health and mental health problems. The C-ASK is especially suited for use by paraprofessionals, case managers, nurses or other providers working in community based settings. Qualitative data based on semi-structured interviews, focus groups, and observations was collected in conjunction with the initial testing of the tool in a diverse urban community mental health setting. Participants included 60 outpatients, 36 mental health professionals and 13 administrators. Data analysis used a method of consensus coding involving agreement of final

codes among three researchers. Primary findings suggest that the tool is feasible, liked by patients, and generally viewed as helpful. The greatest challenge identified was the need to facilitate sustained use of the tool within an agency as part of routine care. Strategies are needed to support agency supervisors/administrators or team leaders in providing supervision and training to staff in order to promote maximum effectiveness in using the assessment tool. The implications of this study for embedding the tool as part of culturally and clinically relevant recovery-based services are discussed.

This research was supported by Grant Number R34MH07716 from the National Institute of Mental Health.

Conflict of Interest
The author reports no conflict of interest.

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Using a Community-Based Participatory (CBP) Approach to Teaching Medical Students About Minority Health and Health Disparities: The CBP Curriculum Development Tool

David Acosta MD, FAAFP

Reducing health care disparities among disenfranchised populations remains a major challenge in the United States, and those affected are integral to better understanding causes and solutions. Community-based participatory research (CBPR) provides a process for obtaining input by partnering community members with academic researchers to jointly define issues needing study. The University of Washington (UW) School of Medicine Center for Equity, Diversity and Inclusion (CEDI) adopted and translated the principles/processes of CBPR to develop a new curriculum tool for medical educators—the community-based participatory curriculum development (CBPCD) tool - designed to partner community members with medical educators to jointly define issues to teach our future physician workforce. The critical elements are: (1) recognition that the community has important expertise; (2) partner community members with medical educators; (3) mutual sharing of knowledge, skills, resources and power; (4) participation in every aspect of curriculum development; and (5) empower the community to inform and direct change in behavior, attitudes, knowledge and skills of future health care workforce. Three

separate health care disparities courses for three population groups (Hispanics, LGBT (Lesbian, Gay, Bisexual, Transgender), and African American) were developed and implemented starting in 2007. This approach allowed CEDI to engage the community it serves and receive meaningful recommendations on curriculum content that matters (based on their personal experiences with medical students, residents and faculty). In 2012, 86.1% UW graduates felt their instruction in health care disparities was appropriate, and 6.3% inadequate in comparison to 79% and 18.5% respectively in 2008 UW graduates. This approach provides medical students with an opportunity to hear testimony and witness the direct impact of health inequities on the community members affected.

Conflict of Interest
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— Breakout Session Speaker —

Cultural Aspects of Treating Survivors of Sex Trafficking

Mary de Chesnay DSN, RN, PMHCNS-BC, FAAN

The traumatic events experienced by survivors of sex trafficking are not unlike the experiences of victims of state-sanctioned torture. Injuries sustained during the period of exploitation leave scars on the body and the spirit that can prevent the survivor from having any semblance of a happy life unless practitioners understand the culture not only of the patient, but of the street or brothel. This paper presents clinical implications derived from life histories of women who had been trafficked in the sex trade. Recommendations are given for how to provide services framed within a cultural context. One of many challenges in working with sex trafficking victims is that they may actively resist being rescued. Traffickers are expert manipulators who create a new family structure of rigid rules and norms with the girls they exploit. Street pimps might use the “Romeo” approach in which they seduce the girl into loving them, creating a power-

ful loyalty. Others simply exert control by threatening to harm the girls’ families. This technique is particularly effective with young women who come from cultures that value the family above the individual and would do anything to protect their families, even if the parents sold the girl into early marriage or prostitution. Providing culturally based care is critical to working in collaborative networks including law enforcement, prosecutors, medical and social services, and the business community.

Conflict of Interest
The author reports no conflict of interest.

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A Multi-Method Approach to Assessing Cultural Competency in Medical Education

Jessica Goodkind PhD; Felisha Rohan-Minjares MD; and Valerie Romero-Leggott MD

There is growing agreement in the field of cultural competency in medical education that assessment should employ mixed-methods including self-assessment of perceived competency, assessment of performance, and impact of culturally competent behaviors on health outcomes. In 2004, cultural competency training became a required component of the curriculum at the University of New Mexico School of Medicine. Since 2012, we have begun development of a comprehensive assessment, which includes small group competencies, reflective writing, formative and summative standardized patient activities, professional interpreter feedback, cumulative portfolio, and self-assessment. The first step in this process was to create a plan for administering the Multicultural Assessment Questionnaire (MAQ) to medical students 5 times during their 4 years of UME. Preliminary data from 1st and 2nd year medical students in July 2012 suggested some important differences, which may be due to curricular efforts during the first year that resulted in positive change. Longitudinal administration of the MAQ will allow for ongoing review of the outcomes.

The next step was to develop a standardized patient experience and 8-item self-report survey to evaluate changes in students' confidence in cultural competency skills pre- and post-activity. The scale had high internal consistency (Cronbach's $\alpha = .89$) and showed significant increases in students' confidence ($P < .001$; CI [.12, .43]; ES = .39). Although assessing cultural competency is complex and challenging, it is essential that to develop robust measurement strategies both to evaluate the cultural competency curricular efforts and to ensure that medical students perceive this part of their education as central to their ability to become effective physicians.

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None of the authors report a conflict of interest.

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**Third Cross-Cultural Health Care Conference:
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— Breakout Session Speaker —

Needs for Diabetes Care in a Rural, Underserved, Multi-Ethnic Community

Jillian Inouye PhD, APRN; Merle Kataoka-Yahiro DrPH; Nafanua Braginsky PhD, APRN; Lenard Allen MA, MFTI; and Katharyn Daub EdD, CTN

Diabetes is a significant health concern in rural, underserved communities. While some evidence exists about the success of Community Health Workers (CHW) in service delivery functions, little is known about the perceptions of their use in different ethnic communities. The aims of this project were: to determine needs and barriers to care; to hear providers' and patients' perceptions of care; and to gauge the acceptability of CHW for future interventions. Participants were recruited into three focus groups in a medically underserved rural community with 15 total participants, two patient groups and one provider group. Standard questions focused on intervention needs and thoughts about delivery methods. Concept analysis was performed by three independent reviewers using the constant comparative method. These results were then presented to the focus groups for verification and revision. Five categories emerged: "Programmatic Needs," "Culture," "Relationships," "Health," and "Challenges." The themes/subthemes focused on providers' and patients' views on the expected role and

duties of CHWs; specific cultural health practices; patient-health professional relationship; patient's perception on health related to self and external forces; and patients' challenges in meeting their health needs. What emerged from this project were cultural values around lifestyle behaviors, how self and others play a role in health and challenges. Most valued were personal interactions without the aid of technology. These five categories and themes can inform future interventions in this rural community and areas that can be addressed by CHWs who are culturally aware of the needs and specific interaction styles of this population.

Conflict of Interest

None of the authors report a conflict of interest.

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It Is Not Where You Die, But Who is With You When You Die: Evolving Palliative Care Practices Among Marshall Islanders in Hawai'i

Lauren Okamoto MD; Anna Tamai MD; Sheldon Riklon MD; and Gregory G Maskarinec PhD

Many Marshall Islanders seek healthcare services in Hawai'i. Little is known about traditional Marshallese palliative care practices. Our purpose was to learn about traditional Marshallese palliative care practices to provide culturally appropriate care. We convened 3 focus groups in 2011-2012 among Marshall Islanders living in or visiting the island of O'ahu, Hawai'i. Group facilitators were uniformly trained to conduct focus groups using prepared script, with a native speaking interpreter. Data were analyzed using classical thematic triangulation methods to identify specific Marshallese palliative care practices and the effect of economic and social challenges in Hawai'i. Nine females and ten males, ages 17-79 years, participated. A "good death" was defined as "peaceful and pain free," occurring naturally with avoidance of artificial life prolongation. Factors associated with "good death" included gathering of family to absolve conflicts, and proper and timely cultural practices such as Ilomej (wake) and Eorak (post-burial memorial service). Dying at home is the norm among people living in the Marshall

Islands. After migrating to Hawai'i, having family present at the time of death was more important than the actual locale of death. Factors associated with "bad deaths" included young age, active suffering, accidents, suicides, or "black magic/curses," lack of timely burial, or proper burial site. Barriers included mortuary fees, cost of transporting bodies, US government policies, and wait times for death certificates. There are many underlying cultural factors contributing to "good or bad" death. Overcoming identified barriers may facilitate cultural practices necessary for a good death.

Conflict of Interest
None of the authors report a conflict of interest.

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Validation of Outcome Measures Used in Hawai'i's Rural, Integrated Healthcare Settings

Jill Oliveira Gray PhD; Annie Herмосura MA; Justin Maeda MA; and Heather McDermott MA

As we continue to move toward a person-centered, evidence based healthcare model of integrated service delivery, a more comprehensive understanding of outcome measures is essential. Research indicates health disparities in rural populations in Hawai'i, specifically among Native Hawaiians. Native Hawaiians experience significantly higher physical and behavioral health risks, poorer health status, and lower life expectancy rates compared to other ethnic groups in Hawai'i. Contributing to this problem is a lack of valid assessment measures to identify and monitor treatment progress with rural populations. In order to bridge this gap, I Ola Lāhui serves as an organization that incorporates evidence-based practices with and conducts ongoing evaluations of patients served in rural communities. For the past 7 years, I Ola Lāhui has gathered health outcome data using the Short Form Health Survey-12 (SF-12) and Duke Health Profile, two widely used and validated health outcomes measures for different populations across the world but not for

individuals from rural communities in Hawai'i. These self-report questionnaires measure perceived change across physical and mental health domains and have been applied in various community, inpatient, and outpatient settings. Preliminary validity and reliability analyses of the SF-12 and Duke were conducted for patients recruited from various community health centers across the state, 37.8% of whom were Native Hawaiian, with comorbid physical and mental health conditions (N=347). Results indicate good construct and convergent validity as well as adequate internal consistency for these measures which supports their use with a rural community sample in Hawai'i.

Conflict of Interest
None of the authors report a conflict of interest.

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**Third Cross-Cultural Health Care Conference:
Collaborative and Multidisciplinary Interventions, February 8-9, 2013**

— Breakout Session Speaker —

Administering Psychological Assessments to Multiple Refugee Populations in a Cross-Cultural Setting

Suzan Song MD, MPH; Adriana Weyandt PsyD; Nida Mirza MS; and Kristel Nazzal MS

Within the Center for Survivors of Torture (CST) at Asian Americans for Community Involvement (AACI) in San Jose, California, the need for reducing the stigma of seeking mental health treatment has impeded the access to mental health treatment for refugees and torture survivors from various ethnic communities. The County of Santa Clara provided funding and support to create a program that would address this issue and provide psycho-education for nine specific unreached communities. Resulting from this program were various cultural events and multi-cultural events organized by hired community partners from each target community. One such event was a parenting workshop at which Dr. Suzan Song provided information to each community on parenting and the common

tensions that arise from differing acculturation levels and rates between parents and their children. Measures of psychological distress, family hardiness, strengths of each family, and difficulties experienced by each parent and some children were collected and analyzed. The resulting indications of distress and dichotomous acculturative stress were reported and the need for future research outlining the inter-generational transmission of trauma was emphasized.

Conflict of Interest
None of the authors report a conflict of interest.

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A Multidisciplinary Approach to the Prevention of Early Childhood Caries in Aboriginal Infants in New South Wales, Australia

David Walker PhD, MHPEd, BDS; Ngiare Brown MPHTM, FRACGP, BMed;
and Anthony Blinkhorn PhD, MSc, BDS

Early childhood caries has a major impact on Aboriginal children with recent reports finding a significant increase in the number of Aboriginal children undergoing multiple dental extractions under general anesthesia due to this disease. This study reports the evaluation of a multidisciplinary approach to the prevention of early childhood caries in Aboriginal communities. Oral health training was provided to Aboriginal Health Workers in six Aboriginal Community Controlled Health Services. Pre- and post-training surveys and interviews were conducted to explore change in knowledge and attitudes, to evaluate the training program and to explore means of improving training delivery. Further interviews were undertaken four months after training to explore Aboriginal Health Workers' perceptions of the impact of training on their practice and the potential impact on the oral health of their communities, and to identify the next steps in culturally appropriate oral health role development. The training program was evaluated highly with particular importance

given to the conduct of role plays of the provision of oral health advice and support and of the undertaking of screening. At four months, Aboriginal Health Workers reported significant change in their practice with increased provision of oral health advice to family carers, screening of infants and children for early childhood caries, and referral for dental care. A multi-disciplinary approach to the prevention of early childhood caries based in the training of Aboriginal Health Workers in oral health can lead to improved access to oral health advice, screening and referral in order to reduce the impact of this disease.

Conflict of Interest
None of the authors report a conflict of interest.

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Native Hawaiian Health Program in a Community-Based Hospital in Hawai'i

Diane Paloma PhD, MBA

Queen Emma and King Kamehameha IV's vision in 1859 has profound effects on today's healthcare community. The Native Hawaiian Health Program was developed to address the specific health needs of Native Hawaiians at The Queen's Medical Center. Focused upon aligning the health needs of the Native Hawaiian community and the Chronic Disease management strengths of The Queen's Medical Center, the Native Hawaiian Health Program seeks partnerships both internally and externally to address health needs of this population. The five specific aims of the program (clinical outcomes, healthcare training, research, access, and outreach) will be shared in parallel to Queen Emma's personal achievements and challenges via oli (chants) written for Queen Emma. Clinical outcomes are

the direct link to patients in the Cardiac, Oncology, Diabetes, Obesity and Medicine service lines. Healthcare training will illustrate the various scholarships given to increase the Native Hawaiian healthcare workforce. Research includes both health disparities research as well as translational research. Access and Outreach promote community partnerships and staff development. Participants will have a better understanding of Queen's healthcare services and the woman behind the name.

Conflict of Interest
The author reports no conflict of interest.

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**Third Cross-Cultural Health Care Conference:
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— **Poster Presentation** —

Building a Global Indigenous Health Community of Practice

Andrea Pritchard Kennedy PhD, RN; Yasmin Dean PhD, RSW; Chad London PhD;
Dion Simon; and Andreas Tomaszewski PhD

This presentation provided an overview of our experience building an Indigenous Health Community of Practice (IH-CoP) at Mount Royal University. Our Faculty of Health and Community Studies has a variety of academic departments, including Nursing, Social Work, Justice, and Physical Education that work in collaboration with The Iniskim Centre, our support system for First Nations, Inuit and Métis students. In 2010, we recognized the need for a coordinated forum to learn from each other, and develop scholarship, community service, and student learning opportunities to ensure that vital, sensitive work was not done in isolation. We referred to the World Health Organization (2007) to provide foundational understanding about indigenous health, and defined our IH-CoP domain (membership), community (interactions), and practice (our collective work) based on Wenger's (2006) theory. Our approach is informed by the Royal Commission on Aboriginal Peoples (1996) to make certain that our interactions are based

on “mutual recognition, respect, sharing and responsibility”. Over the years, our IH-CoP membership has grown, and our local group has emerging global connections. We are actively exploring strategies to foster these connections in order to promote indigenous health as a shared global priority. Examples of recent Canadian and Hawaiian collaboration illustrated how links have been created thus far, including a research proposal to develop a global IH-CoP network. We hope that presenting our work will help us move forward together to promote global indigenous health. Moreover, our IH-CoP is cornerstone to a broader vision to create a Human Dignity Commons.

Conflict of Interest
None of the authors report a conflict of interest.

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Cross-Cultural Healthcare Delivery and Treatments: An Examination of Russia and the United States

Ekaterina V. Shapiro BS and Jon M. Shapiro PhD

Introspective inquiry is a methodological approach utilized within cross-cultural marketing in order to gain understanding of artifacts, symbols, socialization and underlying assumptions. We employed this method to contrast the medical systems within the Russian Federation and the United States in terms of medical care, service delivery, and nutritional guidance. Both researchers are bicultural and went through birthing processes within Russia and the United States over a 2-year period. Each system is built on culturally-embedded tradition, provides striking contrasts in terms of prenatal and natal nutrition, and treats cultural outsiders uniquely. We aim to contrast the advantages within each structure to guide public policy and medical service strategy and recommend how each system may become more culturally-sensitive. The researchers faced the following challenges: within Russia interactions with physicians and other healthcare providers are based upon culturally-hierarchical connections. Thus, they are often unwilling to disclose to minorities or “outsiders.” Such

challenges were circumvented by utilizing a bicultural research team to provide insider contact and triangulated insight. Within the United States, physicians appeared to treat ethnic minorities and people from other cultures differently by providing shallower feedback when explaining medical conditions. Thus, as cultural outsiders, researchers are provided more superficial data and patients with a more cursory explanation of treatments. The Russian system stresses better prenatal nutrition and essentially demands that all mothers breastfeed. The United States tends to provide emergent technology for treating complications and Russia utilizes a holistic approach. The paper describes an array of focal contrasts between the two medical systems.

Conflict of Interest
None of the authors report a conflict of interest.

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Initiating the Integrative Process Locally and Globally: Training Afghan Medical Residents to Address Behavioral Health Concerns in the Context of Primary Care

Karla Torres PsyD; Kathryn McLean MA; Lia Knox PhD; and Preston Visser PhD

While behavioral health (BH) problems underlie more than 80% of primary somatic complaints presenting in medical contexts, these concerns are often not adequately addressed as many organizations are not strategically prepared to respond. Behavioral Health Consultants (BHC) specially trained in models of integrated care can assist medical settings attempting to integrate BH services; however, cultural and pragmatic factors may challenge and limit the applicability of these models across diverse settings. Afghan medical residents requested training from the Lawndale BH team in order to treat mental health needs among their patients. The team pursued a collaborative approach that identified community strengths and sought to empower individuals from that culture by training and equipping them to deliver these services. The interventions were sensitive and respectful of cultural values, and sought to build a more sustainable mental health structure. Through collaborative consultation, the BH team began with a Preparation phase in which the

team assessed community needs and resources and developed treatment models focused on crossing cultural contexts. During the Implementation phase a team of 2 BHCs provided training at hospitals in Afghanistan. The final Continuation phase focused on solidifying the partnership between organizations. In each phase the BH team utilized consultation skills to Listen by identifying needs through observing and learning from the client, Advise through the adaption and synthesis of information gathered to reflect possible options to client, and Invite by engaging the client in evaluating and modifying presented plans. This initiative provides a preliminary framework for organizations attempting cross-cultural integrated care.

Conflict of Interest
None of the authors report a conflict of interest.

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A Qualitative Interpretive Meta-synthesis (QIMS) of African Americans and Obesity: Cultural Acceptance and Public Opinion

Tracey M. Barnett LGSW and Regina T.P. Aguirre PhD, LMSW-AP

The Centers for Disease Control (2012) estimate that 44.1% of Non-Hispanic Blacks score the highest in obesity prevalence compared with Mexican Americans (39.3%), all Hispanics (37.9%) and non-Hispanic Whites (32.6%). The purpose of this study is to understand the experiences of African Americans (AA) who struggle with their weight. A Qualitative Interpretive Meta-Synthesis was used to locate and synthesize qualitative scholarly articles from medicine, nutrition, nursing, public health, and social work. Peer-reviewed studies were included that contained qualitative descriptions of AA's experiences with diets and weight loss who were living in the US. The eight studies combined yielded a sample size of 384 AAs currently living in Illinois, Mississippi, Missouri, Tennessee, and Texas, whose ages ranged from 8 to 77. Six themes were identified from the studies, including: (a) barriers to being physically active, (b) enjoying the benefits and results of exercising, (c)

public opinion about weight and weight loss, (d) preference for strong-willed support system, (e) inspirational reasons to lose weight, and f) community and cultural acceptance and opinion of body size. The themes identified have implications for future practice and research. Possible health outcomes research could begin with health education in at-risk AA children and youth. AAs live in a mixed culture. They have the "real" self that they portray at home and the "idealized" self that they display in the world. AAs often find these two worlds lead to competing cultural conflicts as the real self and idealized self are two different people.

Conflict of Interest
None of the authors report a conflict of interest.

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The Complexity of Culture: Using an Intersectional and Social Ecological Lens to Examine the Impact of Culture on Health Disparities

Lauren Brinkley-Rubinstein MA, MS and Abbey Mann MS

Research has explored the underlying causes for the presence of health disparities disproportionately affecting minority and immigrant populations in the United States. This paper seeks to inform intervention and practice by examining the strengths of both ecological and intersectional approaches to alleviating health disparities. There is a need to consider the intersection of multiple inequalities in combination with a concentration on environmental factors affecting marginalized populations. Furthermore, the interaction between individual and societal norms and productions of culture must be better understood in order to more comprehensively address the means through which culture intensifies health disparities. Research has also indicated that intersecting forms of identity and inequalities that manifest at the individual level can lead to negative health outcomes. These intersections of identity and inequality are further compounded by structural forms of inequality that affect the social conditions in which immigrant populations work and reside. In order to address and prevent further exacerbation of health disparities

among immigrants, multilevel, multidisciplinary approaches must be used. This may be achieved by blending frameworks that focus on the impact of the social environment and intersecting forms of identity and inequality, and the intermediary manifestation of structural conditions. Subsequently, the authors recommend participatory and holistic perspectives and those that incorporate cross-sector partnerships to provide avenues for the application of hybrid social ecological and intersectional frameworks. These types of approaches have been shown to increase individual empowerment and ameliorate the deleterious effects of traditional power dynamics that exist in traditional research-driven interventions by including and giving power to the affected population at every step of the intervention.

Conflict of Interest
None of the authors report a conflict of interest.

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Exploration of Research Community Relationships with Marginalized Youth at Risk for HIV in the United States: Promoting Openness Through Safer Sex Education Project

Diana Lemos MPH and Sybil G. Hosek PhD

Working with youth who are marginalized on multiple levels provides unique challenges due to adolescent developmental and social influences, including stigma surrounding access and receipt of medical services, particularly among those with highly stigmatized conditions such as HIV. Utilizing a community-based participatory process, a community-level HIV intervention, Promoting Openness through Safer Sex Education (POSSE), was developed to access the House Ball community in Chicago. The House Ball community is comprised of primarily African-American youth of diverse sexual and gender identities, who compete in underground events involving artistic dance and gender expression. While there is limited research from within such communities, it has demonstrated HIV is a concern. The POSSE study utilized a 3-stage community-based participatory research approach (CBPR) with a community advisory board (CAB) comprised of House leaders and members from Chicago houses. In Stage 1, semi-structured qualitative interviews, using a HIV-related risk and protective factors framework, were

conducted with House leaders and members (N=39). In Stage 2, qualitative data was then evaluated with input from the community advisory board. Summaries were shared with the CAB for theme validation and expansion of definitions. Three main themes were identified informing intervention development. In Stage 3, a pilot intervention of the POSSE project was conducted (N=60 Opinion Leaders), after the adaptation process of *d-up! Defend Yourself* intervention for the House Ball community. This study highlighted how this 3-stage CBPR approach can be used to work with marginalized groups to promote innovative HIV-prevention interventions.

Conflict of Interest
None of the authors report a conflict of interest.

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I'm Culturally Competent, Now What? The Use of Inquiry Methodology to Explore Cultural Humility, Cultural Responsiveness and Critical Self-Reflection in Community-Based Participatory Research & Practice

Leah Christina Neubauer EdD, MA

In terms of broad competency, the demands for public health and community-based researchers and practitioners are quite vast. This demand requires researchers and practitioners to consistently acknowledge the larger political, social, and economic forces surrounding themselves, their work, and their collaborative partners.

This year-long action research study employed collaborative inquiry (CI) to investigate cultural competency in participant's (N=6) community-based research and practice. Drawing from Heron's (1971) cooperative inquiry, pragmatism and hermeneutic phenomenology, CI is a systematic process where peers work collaboratively to address an issue of mutual significance through repeated episodes of reflection and action. The new knowledge generated becomes the basis for innovative actions designed to modify professional practice or research (eg, curricula, guidelines, professional principles). While a fluid and experiential form of inquiry, CI is highly rigorous with its concerns about the validity of the learning that emerges among practitioners.

The findings from this qualitative, multiple-method study illustrate that cultural competency is not universally agreed upon in definition, in planning, and in use. Instead of cultural competency, or "mastery" of multiple cultural specificities, the goal for practitioners should be active cultural grounding as one begins to examine their understandings of the self and context. CI is a particularly useful methodology for exploring the complex and dynamic nuances of constructs such as culture. For community-based researchers/practitioners, CI provides an opportunity to promote learning, while deepening and broadening one's personal and professional knowledge base. Qualitative research inquiry methods provide excellent organizing structures for ongoing professional development.

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The author reports no conflict of interest.

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**Third Cross-Cultural Health Care Conference:
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— Student Presentation —

Occupational Health of Newcomers and Immigrants to Canada

Iffath U.B. Syed MPH

Previous discourses in occupational health and medicine suggest that newcomer and immigrant groups experience high rates of work-related illness and injuries, possibly resulting from working conditions, social exclusion, as well as participation in precarious work. Often, social circumstances lead to adverse health outcomes including mental, psycho-social, and physiological. This investigation's aim was to gather a rich understanding of the evidence for work-related illness, morbidity and mortality among immigrant and newcomer groups from urban areas such as Montreal, Toronto, and the Greater Toronto Area, locations which have been popular destinations for migrant settlement and labor market trends in the last two decades. This study focused on elements from the political economy, social determinants of health, and social justice lenses to examine the concept of the new visible minority labor diaspora in the Canadian context, evidence for occupational disease acquired in the workplace among these vulnerable groups, and how such illness intersects

culture, employment background, and gender. Evidence of income disparities from the literature was compared to Statistics Canada 2006 census data and adjusted for inflation. This analysis confirmed the negative effects of resettlement stress and precarious working conditions experienced by ethnic and racial minorities. Work-related musculoskeletal conditions, workplace violence, mental health issues due to overt discrimination and profiling, as well as exposures to second hand-tobacco smoke have been described. In addition, large disparities in earnings were widely reported. The implications of these findings has led to suggested interventions to address these issues.

Conflict of Interest
The author reports no conflict of interest.

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Guest Editors' Message: Hawai'i Pharmacists Association Annual Meeting 2013; April 13-14, 2013

Eric Gilliam PharmD, BCPS and Benjamin Chavez PharmD, BCPP, BCACP; Co-Guest Editors

The Hawai'i Pharmacists Association (HPhA) is proud to present the abstracts presented by its membership during their annual meeting at the Honolulu Country Club on April 13 - 14th, 2013. As the only professional pharmacy association in Hawai'i, HPhA serves a membership of approximately 350 pharmacists, pharmacy technicians, and pharmacy students. HPhA is dedicated to improving patient care for the people of Hawai'i and the Pacific through the advancement and support of pharmacy practice. Hawai'i pharmacy students and practitioners, both pharmacists and technicians, were invited to submit abstracts within the categories of original research, practice insights, and

therapeutic case reports. More information about the HPhA abstract submission process, poster session, and complete list of works presented at the meeting can be found at: <https://sites.google.com/site/hphaposters/>

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None of the authors report a conflict of interest.

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Addition of Hypoglycemics Following Hemoglobin A1C Levels: An Epidemiological Study From a Large Hawai'i Database

Benjamin Chavez PharmD, BCPP, BCACP; Jim Davis PhD; and Deborah Juarez ScD

Background: Despite guidelines that highlight the importance of glycemic control, national population-based estimates suggest that only 56% of patients with diabetes have HbA1c $\leq 7\%$.

Objective: To determine how often medications get prescribed based on changes in HbA1C, as well as which types of medications.

Methods: A database from a large insurance company in Hawaii was used. Patients had to have at least one prescription for a diabetes medication and a serum HbA1c measurement in 2009. Participants were classified into three groups: no increase in HbA1c, an increase of $< 1\%$, or an increase of $\geq 1\%$. The primary outcome was adding a new medication for diabetes during the first 30 days of follow-up.

Results: The percentage of patients adding a new medication within 30 days were 0.47% for those with no HbA1c increase, 13.5% for those with an increase of $< 1\%$, and 23.9% for those with increases of $\geq 1\%$. Use of new oral medications was by far

the more common; adding insulin was infrequent, particularly for patients with baseline HbA1c levels below 9%. The percent beginning insulin remained under 7% regardless of the baseline HbA1c or percent increase in HbA1c.

Conclusion: Addition of medications based on HbA1C appears not to be as common as suspected. Despite knowledge that insulin is one of the most effective methods of controlling diabetes, the use of it is relatively low in this database. Education of providers and patients may help to increase the appropriate use of insulin.

Conflict of Interest

None of the authors report a conflict of interest.

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Outreach Efforts of the Pacific Islander Mobile Screening Clinic

Jed Sana (Student Pharmacist); Brianne Gustilo (Student Pharmacist);
and Katherine Anderson PharmD

Background: The Pacific Islander Mobile Screening Clinic (PIMSC) is a student organization at the University of Hawaii at Hilo College of Pharmacy. A \$20,000 HEAL grant from the Hawaii Beacon Community facilitated PIMSC's outreach efforts to expand underserved communities throughout Hawaii County, with the goal of reaching 350 participants with free wellness screenings.

Objective: Educate the public about PIMSC efforts and its target of Pacific Islander communities with limited medical access known to have high rates of diabetes and hypertension.

Methods: Participants were provided the following metabolic screens: body mass index, blood pressure, hemoglobin A1c, and cholesterol. In initial and follow-up screenings, student pharmacists and interpreters provided health education personalized to participants' lifestyle and screening results.

Results: Screenings to-date include 342 initial and 49 follow-ups at 19 screening events held from April 2012 to February 2013. The ethnicities among the participants include 102 Micronesians,

66 Native Hawaiians, 62 Asians, 49 Caucasians, 21 other Pacific Islanders, 8 African Americans and 34 others who declined to report. Thirty participants were uninsured, and 82 did not have a local care provider. Satisfaction surveys were completed by 72 respondents; and the average score was 4.7, with 5 being excellent on a scale of 1 to 5.

Conclusions: PIMSC hopes to reach a larger percentage of Pacific Islanders through increased collaboration with leaders in the target communities. Assistance with translation, obtaining health insurance, and connecting with a health care provider has been highlighted as needs in these communities. Future endeavors include expansion to neighboring islands.

Conflict of Interest

None of the authors report a conflict of interest.

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Pharmacy Workload: Medication Order Verification After Closure of Two Community Hospitals

Eric Gilliam PharmD, BCPS; Brian Niimi (PharmD Candidate); and Meng Fei Lee PharmD

Background: An increase in patient volume has been noted in hospital emergency departments (ED) after the closure of two community hospitals. This study aimed to evaluate changes in ED medication order verification (pharmacy workload) at The Queen's Medical Center before and after these hospital closures.

Objectives: Determine if ED pharmacists' order verification volumes and/or the time required for order verification changed after the recent hospital closures.

Methods: This study was a retrospective analysis of medication orders generated within the ED. Baseline ED order verification volumes were collected from December 1-14, 2011 and post-closure volumes were gathered from January 7-21, 2012. The date-time of all medication orders generated and the time to pharmacists' verification of the order were collected from the electronic medical record database utilizing a computerized physician order entry system. The baseline and post closure order volumes were compared using non-parametric statistical t-tests.

Results: The volume of orders did not differ significantly between the two time periods: 10,326 versus 10,343 orders per two weeks. Order verification time improved in the post group with average per-order verification time of 10.67 minutes versus 13.12 minutes in the pre-group.

Conclusion: Time required for order verification was not negatively affected by increased patient volumes. However, this study failed to evaluate all workload indicators including clinical actions which may have been negatively affected by changes in workload.

Conflict of Interest
None of the authors report a conflict of interest.

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Prevalence of Diabetes and Obesity Among Hawai'i County Residents Identified by Pacific Islander Mobile Screening Clinic Health Screenings

Katherine Anderson PharmD; Francine Amoa (Student Pharmacist);
and Amanda Wendel (Student Pharmacist)

Background: High prevalence of diabetes and obesity is reported among Hawai'i County residents. This report is the first of a three-part cross-sectional study using data obtained by a pharmacist-led mobile screening clinic over a 10-month period in 2012-2013.

Objective: Identify prevalence of diabetes and obesity in rural residents with reduced access to care.

Methods: Participants 9 - 89 years of age were recruited from community health screenings. A questionnaire was used to gather sociodemographic information. HbA1c, BMI, and other point-of-care metabolic parameters were obtained. Stages of pre-diabetes/diabetes categorization were determined using 2012 ADA diabetes guidelines. Data were analyzed using descriptive and inferential statistics.

Results: Three hundred forty-two consenting participants were enrolled, including some children for whom parents provided informed consent. Data is based on a cohort of 262 participants with HbA1c results. Thirty-eight percent were male, 61.9% female, mean age 47.7 years (range 11-89), 51.3% had at least

some college education. The mean A1c was 6.6% and BMI 28.9%. Ethnicity and percent with HbA1c \geq 5.7: Pacific Islander 81.3%, Micronesian 77.8, Asian 71.7%, Hawaiian/Hawaiian Mix 71.2%, Marshallese 68.4%, Hispanic 57.1, White 55.6%. For those with HbA1c $>$ 6.4, mean A1c was 9% and BMI was 30.7. High prevalence diabetes mellitus and obesity was led by the Pacific Islander cohort with 81.3%, HbA1c $>$ 5.7, and 64.7% BMI $>$ 30.

Conclusion: Our findings report higher rates of diabetes, which may indicate we are working among under-reached populations. High prevalence diabetes mellitus and obesity was led by the Pacific Islander cohort with 81.3% HbA1c $>$ 5.7 and 64.7% BMI $>$ 30.

Conflict of Interest
None of the authors report a conflict of interest.

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The 2012 Beers Criteria in Pharmacy Technician Training: Limited Introduction at a Career College

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Background: Pharmacy technicians could be better assets through suitable application of the Beers Criteria (The Beers Criteria [or Beers List] is a list of medications that are generally considered inappropriate when given to elderly people). That was a comment in the Pharmacy Technician Educators Council Google Group's exchange on the Beers Criteria in August 2012. The comment stimulated introduction of the Beers Criteria to students in an early course of pharmacy technician training at a career college.

Description of Practice: For a precursory course to "Pharmacology," the instructor modified the career college's formula for the major assignment so that it could include students' communication of specific, verbatim text from the 2012 Beers Criteria. The modification was that if the major assignment's topic was a drug in the Beers Criteria, the student's oral presentation and visual aid (PowerPoint or handout) would give the Beers Criteria's rationale(s), recommendation(s), and strength of the recommendation(s) for the drug. A handout and oral clarification on what content should be in the visual aid (a deliverable)

were given by the instructor. The instructor only mentioned the Beers Criteria as a means for students' application of their understanding of drugs' adverse reactions during the experiential courses in pharmacies. After limited introduction to the Beers Criteria, students acceptably collected specific information from the primary article on the Beers Criteria, and incorporated such into the assignment of medical communication. Through encouragement from pharmacists at experiential sites, students possibly could develop their knowledge and comprehension of the Beers Criteria into application with the potential for assisting the pharmacist in improving direct patient care.

Conclusions: Pharmacy technician training can include the Beers Criteria as a suitable topic.

Conflict of Interest
The author reports no conflict of interest.

Author's Affiliation:
- Independent Contractor

Description and Impact of Clinical Pharmacy Services in a Dialysis Unit: Focusing on Anemia Management and Bone Disease Management

Ramona K. Corson PharmD, BCPS and Charles L. Chiu PharmD, BCPS

Background: Clinical Pharmacists have been involved in the care of Chronic Kidney Disease (CKD) patients and End Stage Renal Disease (ESRD) patients in various settings. It is estimated that over 10% of the US population, or more than 20 million, aged 20 years or older in the United States have CKD. In the United States, there are 413,725 ESRD patients, on either hemodialysis or peritoneal dialysis per 2010 United States Renal Data Set (USRDS). With this growing population, Kaiser Permanente in Hawai'i has over 420 patients on dialysis in over 25 dialysis units throughout Hawai'i.

Description of Practice: The clinical pharmacist is part of the multi-disciplinary nephrology team and works closely with the dialysis team. There is coordination and follow through with dialysis labs and medication adjustments with the supervising nephrologist. Average hemoglobin was 11.1 gm/dL, within the target range of hemoglobin 10.0-11.5 gm/dL. Mineral bone

disease management (MBD) outcomes include average intact parathyroid hormone of 447 pg/mL, calcium of 9.0 mg/dL, and phosphorous of 5.3 mg/dL. Similar to anemia management, MBD outcomes were also within target range.

Conclusions: Clinical pharmacy services have a role in ESRD starting with anemia and bone management. Anemia management is one of the more common areas of involvement where clinical pharmacy can demonstrate its interventions. In the future, other areas of expansion on comorbid conditions managed by clinical pharmacists, working closely with physician partners may be explored.

Conflict of Interest
None of the authors report a conflict of interest.

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Development and Implementation of a Pharmacist-Driven Gout Management Service Including Appropriate Use of Colchicine

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Kimberly Legawa PharmD, BCPS; Camlyn Masuda PharmD BCACP;
Terri Miyamoto PharmD, BCACP; and Gavin T Sakamoto PharmD, BCPS

Background: The US Food and Drug Administration approved new dosing guidelines for Colcrys (colchicine) intended to improve patient safety. The Kaiser Permanente Hawai'i Region took this opportunity to implement a plan to improve gout management in the region and review the appropriate utilization of colchicine. Ambulatory care clinical pharmacists (ACCP) provided telephone-based gout management using an algorithm developed in collaboration with the Rheumatology and Primary Care departments.

Description of Practice: After Pharmacy & Therapeutics committee approval, patient charts were reviewed by ACCPs and student pharmacists; and through discussion with primary care physicians, appropriate candidates for ACCP gout management were selected. The clinical pharmacists contacted patients to provide education on gout management, including new dosing guidelines for colchicine and appropriate use of medications for gout prophylaxis. Patients were also informed of the goals of therapy and gout prophylaxis medications were started or

titrated. Labs were rechecked every three weeks and the xanthine oxidase inhibitor (XOI) dose was titrated to achieve a uric acid of <6 mg/dl or maximum recommended dose based on renal function. Kaiser Permanente outpatient pharmacists reinforced the new dosing guidelines and provided additional patient counseling.

Conclusion: Monitoring and titration of XOIs to achieve a uric acid level of <6 mg/dl was anticipated to reduce the number of acute gout attacks resulting in fewer office visits and a decrease in colchicine use. Pharmacist-directed gout management led to a 60% decrease in the amount of colchicine dispensed in the Kaiser Permanente Hawai'i Region in 2012.

Conflict of Interest

None of the authors report a conflict of interest.

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Impact of Pharmacist Care in a Shared Medical Appointment Model for the Management of Type 2 Diabetes in a Pacific Islander Population

Candace Tan PharmD; Stacy Haumea MPH; Deborah Juarez ScD;
and Charlotte Grimm APRN

Background: Approximately eight percent of the United States' population has diabetes and its health complications make it a leading cause of death. While racial and ethnic disparities are well documented in some populations, less information is available for Pacific Islanders (PI). To address health care challenges in PI, a Federally Qualified Health Center serving Hawai'i Island piloted a shared medical appointment model for diabetes management for two PI populations in 2006.

Methods: A multi-disciplinary team consisting of a dietician, certified diabetes educator, and registered nurse provided weekly education sessions to patients, after which patients had one-on-one appointments with a primary care provider if they met threshold clinical criteria. In 2011, a pharmacist joined the team to provide medication management services during these individual appointments for the Marshallese group. This included optimization of medication regimens to target disease state goals and adherence services. Clinical indicators including A1c, LDL, and blood pressure were compared to a control arm that did not receive clinical pharmacist services (CPS).

Results: Retrospective analysis showed no statistically significant differences in clinical measures between the intervention (n=36) and control (n=21) arms at baseline and at the end of the eighteen-month intervention period. Despite this, subjective reports from patients and providers reflected improved quality of care for the intervention group.

Conclusion: PI face unique healthcare challenges including poor socioeconomic status, language barriers, and differences in cultural perceptions of health care. The value of CPS has been well documented in the literature but future directions for this high-risk group involves further targeting unique care barriers.

Conflict of Interest
None of the authors report a conflict of interest.

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Motivational Interviewing and the Impact of Pharmacy and Nursing Students on Lifestyle Modifications Among Members of the Community, “The A.L.O.H.A. (A Life of Health and Awareness) Project”

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Lara Gomez PharmD; and Mimi Pezzuto RPh

Background: The *A Life of Health and Awareness* (ALOHA) Project, an IRB-approved project funded by the HEAL grant through the Hawai'i Island Beacon Community, aimed to provide free patient consultations and an awareness campaign. The project aimed to promote the benefits of speaking to pharmacists and other health professionals about diet, current medications, and overall health. Student pharmacists and nursing students, under the supervision of Hawai'i-licensed pharmacists, provided lifestyle consultations and discussed ways to better manage and prevent worsening of chronic diseases. Blood pressure, cholesterol and diabetes screenings, and individualized consultations were conducted in underserved communities.

Description of Practice: The ALOHA Project has continuously sought innovative and novel ways to have a significant presence in the community and to collaborate with community organizations and other health professionals. With support from Hawai'i-licensed pharmacists, the project has hosted more events than the typical student organization. In Fall 2012 alone,

the ALOHA Project participated in 13 community events. The ALOHA Project has also sought opportunities for interdisciplinary collaboration. The pharmacy students have had the opportunity to work alongside nursing students, dietitians, and community health advocates.

Conclusions: A total of 134 community members received health screenings, with 15 encounters being optional follow-up visits. Among the follow-up clients: 69% (9/13), 100% (12/12), and 83% (10/12) self-reported that they met their “healthy food to increase”, “unhealthy food to limit”, and “physical activity” goals, respectively. The ALOHA Project has received funding to continue services and program development through the 2013-14 academic year.

Conflict of Interest
None of the authors report a conflict of interest.

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Practice Insights to Home Infusion Delivery Systems

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Background: Until the 1980's, patients receiving long-term intravenous (IV) therapies were required to be treated in the hospital, which is expensive and prevented individuals from resuming their normal lifestyle. Today, patients have a less costly alternative to receive IV therapies either at home or in an outpatient infusion suite. Pharmacare provides over 35 different IV therapies, including antibiotics, chemotherapy, pain management, and total parenteral nutrition (TPN) throughout the Hawaiian Islands, Guam, and the South Pacific. Pharmacare's health care team consists of pharmacists, nurses, patient care assistants, and staff who communicate on a daily basis to optimize patient care.

Description of Practice: Pharmacare offers a selection of infusion delivery systems, including Gravity Filtration, and mechanical and electronic pumps. The choice of device depends on drug and patient related factors. Pharmacists and nurses work together to decide on optimal delivery of IV therapy by evaluating the patient's type of treatment, functional limitations, home

environment, therapy duration, and administration frequency.

Conclusion: Home care is becoming an attractive and cost-effective alternative for administering long-term IV therapies. Home infusion provided by Pharmacare allows patients to return to the comfort of their homes while transitioning back to activities of daily living. The trend of home care is becoming more prevalent due to higher health care costs, technological advances, aging of the US population, and chronic disease state management. Overall, the variety of home infusion devices at Pharmacare allows patients to be independent in medication administration and the health care staff to provide direct patient care in the convenience of patients' homes.

Conflict of Interest

None of the authors report a conflict of interest.

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Reducing *Angiostrongylus cantonensis* (Rat Lungworm) Infection on the Island of Hawai'i Through an Educational Research Approach

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Jill Anne Villarosa (PharmD Candidate); Akio Yanagisawa (PharmD Candidate);
and Susan Jarvi PhD

Rat Lungworm Disease (RLWD) is a globally emerging infectious disease caused by the nematode *Angiostrongylus cantonensis*. In Hawai'i, the State Department of Health has reported 38 cases of the disease since 2005. Members of the Hawai'i Island Rat Lungworm Working Group, including 2nd year pharmacy students, developed an activity book entitled, "The Mystery of Rat Lungworm Disease," and presented it to 2nd grade students at four schools in eastern Hawai'i. The purpose of the book is to teach students and their families about properly preparing vegetables and fruits, as well as other methods to reduce the risk of contracting RLWD. Presentations

included interactive activities and demonstrations on how to wash lettuce and properly dispose of slugs and snails. The activity book is the beginning of a series of educational and research projects intended to limit the incidences of RLWD in the state and throughout the Pacific basin.

Conflict of Interest
None of the authors report a conflict of interest.

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Student-Directed Implementation of a Community Health Fair in a Rural Setting

Janine Masri (Student Pharmacist); Jack Goldsberry (Student Pharmacist); Margaret Kang (Student Pharmacist); and Forrest Batz PharmD

Background: Miloli'i is a uniquely isolated and underserved Native Hawaiian community located south of Kona, on the Big Island of Hawai'i. They are identified as the last fishing village in Hawai'i, with a population of approximately 200 people. Miloli'i is challenged with a lack of electricity, running water, fresh fruits and vegetables, and access to quality healthcare.

Description of Project: In the Spring of 2012, 46 University of Hawai'i at Hilo College of Pharmacy students from the Phi Delta Chi Professional Fraternity, under faculty supervision, designed and conducted an innovative, day-long health fair for the residents of Miloli'i. Student pharmacists provided blood pressure, blood sugar, and cholesterol screenings, as well as brown bag medication reviews. Community organizations provided HIV screenings and urinalysis. Education on healthy diet and lifestyle choices specifically focused on the unique challenges faced by Miloli'i residents.

Results: A total of 74 adults were screened and educated on long-term healthy lifestyle choices to improve individual and community health outcomes. Twenty-five children participated in fun, educational and physical exercise activities. Student pharmacists learned the importance of finding effective ways to encourage children to make healthy lifestyle choices. Students also experienced how to tailor health services to better meet the unique needs of the community.

Conclusions: Goals for future Miloli'i Health Fairs include documenting community impact to assess measurable health outcomes, as well as expanding health education topics for children.

Conflict of Interest
None of the authors report a conflict of interest.

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The Impact of a Diabetes Center in an Independent Community Pharmacy

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Brandon K. Reiss (PharmD Candidate); Kathleen A. Ancheta RN, CDE;
Sheena S. Jolson PharmD; and Leslie J Krenk RPh

Background: A certified diabetes educator (CDE) was employed through an independently owned community pharmacy to establish a diabetes education center. The goal was to create easy and accessible diabetes education and services to patients while improving quality of care and outcomes.

Description of Service: Patients who were newly diagnosed with diabetes, who had difficulty managing their diabetes, or who had gestational diabetes were identified by their physicians and referred to the CDE. After a referral, patients were called by the diabetes center to schedule an appointment. Types of interventions included disease state, nutrition, medication and device counseling, dosage adjustments, and overall monitoring. Services were billed through patient's medical insurance plans as a "Certified Diabetes Educator provider."

Impact of Patient Care: A total of 92 patients were referred to the diabetes center and seventy-two enrolled in 2012. Seventy-six patients completed at least one visit and 41 completed two or more visits. After consultation, of the 49 patients who had

A1c and BMI readings at baseline, 27 had A1c reductions and 25 had weight reductions by the end of the year. Approximately 50% of the patients made improvements after at least 1 visit with the CDE.

Conclusion: Having a CDE in a community pharmacy has helped patients with diabetes achieve desired goals and clinical outcomes. Increased collaboration with the CDE, pharmacy, and physicians could continue to increase patient outcomes. Efforts to expand patient services, encourage follow-up visits, and collaborate with other healthcare professionals are in progress.

Conflict of Interest
None of the authors report a conflict of interest.

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— Therapeutic Case Report —

Daptomycin and Incidence of Elevated Creatinine Phosphokinase (CPK) Levels: A Case Report and Case Series Review

Eryn Kishimoto PharmD; Laura Ota PharmD; and Corinne Solomon PharmD

Background: Daptomycin was approved by the Food and Drug Administration in 2003 for complicated skin and skin structure infections and staphylococcus aureus bacteremia, including right-sided infective endocarditis. Daptomycin has been associated with an elevation in creatinine phosphokinase (CPK) levels, and the manufacturer recommends weekly CPK monitoring with more frequent monitoring in patients receiving HMG-coA reductase inhibitors or patients with elevations in CPK. Since 2006, ten case reports have been published describing daptomycin related elevations in CPK associated with rhabdomyolysis and/or renal or hepatic failure. The onset of CPK elevation occurred between days 1 and 10 with the dose of daptomycin ranging from 4-12mg/kg daily. Three patients had baseline renal impairment and two patients were receiving concomitant HMG-coA reductase inhibitor therapy.

Case and Review: A patient with MRSA bacteremia started daptomycin 750mg daily (6mg/kg) and developed increased CPK levels from 155 unit/L (day 17) to 2423 unit/L (day 18)

with worsening renal function. A retrospective review of 79 patients was completed. Elevations in CPK greater than 600 unit/L occurred in six (7.6%) patients. Five of the six patients received daptomycin doses more than 6mg/kg, had renal impairment, and were considered obese. Two patients received concomitant HMG-coA reductase inhibitors.

Conclusions: Daptomycin is associated with elevations in CPK. We recommend a baseline CPK level and more frequent monitoring in patients with additional risks including renal impairment, critically ill patients unable to report symptoms of myopathy, and obese renally impaired patients. We recommend discontinuing HMG-coA therapy while on daptomycin.

Conflict of Interest
None of the authors report a conflict of interest.

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