Health Disparities

Abstract C-A3-02A

Demographic Data Collection on Racial, Ethnic, and Language Preference Information

Melanie A. Stopponi, MPA, CHES, *Institute for Health Research, Kaiser Permanente Colorado*; Arne Beck, PhD, *Kaiser Permanente Colorado*; Steve W. DelCastillo, PhD, *Kaiser Permanente Colorado*; Mauritha Hughes, RN MEd, *Kaiser Permanente Colorado*; Marleah Jex, MPH, *Kaiser Permanente Colorado*; Bograd Harvey, MD, *Kaiser Permanente Colorado*

Tell me everything about yourself: who you are, where you are from, what languages are you most comfortable in. In 2004, the Kaiser Permanente Partnership Group approved a program-wide policy on the collection of race, ethnicity, and language preference data. Meaningful, authentic, and accurate information is essential to the provision of quality and equitable health care. Health disparities among racial and ethnic minorities continue to be persistent and pervasive. Heightening this complexity is increasing immigration from countries and territories outside of the United States. In 2005, there were over 35 million foreign-born persons in the United States; and our regions rank among the top states with the highest foreign-born populations. A critical barrier to both patient-centered care as well as culturally and linguistically competent care is the frequent lack of patient data. Systematic collection and analysis of demographic data would inform opportunities to improve health care at various levels of service, from provider-patient interaction to system-wide institutional change. Standardized data collection would enhance our care delivery model; improving our ability to eliminate health disparities/inequities as well as attend to the different needs of our various populations. Come explore innovative data collection activities, the challenges and lessons learned in these processes, as well as opportunities for data utilization.

Abstract C-A3-03B

Cardiometabolic Risk and Healthcare Utilization for Hispanic and Non-Hispanic Female Health Plan Members

Sarah J. Beaton, PhD, *Lovelace Clinic Foundation*; Scott B. Robinson, MA, MPH, *Lovelace Clinic Foundation*; Ann Von Worley, RN, BSHS, *Lovelace Clinic Foundation*; Herbert T. Davis, PhD, *Lovelace Clinic Foundation*; Audra Boscoe, PhD, *United BioSource Corporation*; Rami Ben-Joseph, PhD, *sanofi-aventis*; Lynn J. Okamoto, PharmD, *United BioSource Corporation*

Objectives: Cardiometabolic risk (CMR) is the overall risk of developing diabetes and/or cardiovascular disease due to a cluster of modifiable risk factors. CMR has been defined in a variety of ways, but all definitions include some combination of abdominal obesity, hypertension, hyperglycemia, and dyslipidemia. This retrospective study was conducted to (1) determine the prevalence of these CMR factors among female health plan members, identifying differences by ethnicity status (Hispanic vs non-Hispanic); and (2) quantify differences in 2-year healthcare utilization between cohorts of individuals with CMR versus controls without CMR. **Methods:** The study consisted of 2578 female members (27.6% Hispanic) of a southwestern US HMO who had a bone mineral density test during 2003-2004. This population was selected since these patients had, in addition to their bone scan results, a measure of height and weight, allowing us to calculate BMI. The following risk factors were used to define CMR: obesity (BMI >27 kg/m²), high triglycerides (>150 mg/dL), low HDL cholesterol (<50 mg/dL), high blood pressure (systolic >130 mm Hg or diastolic >85 mm Hg), and high fasting glucose (>100 mg/dL). **Results:** Results showed that Hispanic females had significantly higher prevalence rates of CMR compared to non-Hispanic females (65.8% vs 52.3%, respectively, $P<0.001$). Patients with CMR factors were more likely than controls to have at least one hospitalization ($P<0.05$). Outpatient visit rates and total costs were higher than controls, particularly for those patients with a diabetes diagnosis. Patients with obesity and diabetes and patients with obesity, diabetes, and dyslipidemia averaged approximately 34 visits vs approximately 22 visits for their respective controls ($P<0.01$). Total costs were about \$11,500 for those cases with diabetes vs \$5,500 for controls. Total costs for all CMR cases were about \$7,000 vs \$5,500 for controls. **Conclusions:** Higher rates of CMR among female Hispanics compared to female non-Hispanics are consistent with earlier studies. The higher utilization for those with CMR suggests the need for health maintenance organizations to identify and monitor health

plan members with CMR. Future research should explore cultural diversity as it relates to CMR, including differences between Hispanics and non-Hispanics in access to care and disease management programs.

Obesity

Abstract C-A4-01

Incidence of Overweight and Obesity Among Child, Adolescent, and Adult Enrollees of a Managed Care Organization

Douglas W. Roblin, PhD, *The Center for Health Research/Southeast, Kaiser Permanente Georgia*; Josephine Calvi, MPH, *The Center for Health Research/Southeast, Kaiser Permanente Georgia*; Peter J. Joski, MSPH, *The Center for Health Research/Southeast, Kaiser Permanente Georgia*

Background: While the prevalence of adult obesity and pediatric overweight (OW) is well known, incident obesity/OW is minimally described in the literature. We estimated 1-year incidence rates of adult obesity and pediatric OW among enrollees of a group-model managed care organization. We also examined demographic, clinical, and socioeconomic correlates of incident obesity/OW. **Methods:** Enrollee-level data, including enrollment history and demographics, height and weight measurements and chronic disease history, were linked with US Census data based on residential address and geocoded to the census block group. Among enrollees with more than one BMI in a year, the average of BMIs was used for ascertaining adult obesity and the last BMI was used for ascertaining pediatric OW. Separate analyses were conducted for adult (18-74 years) and pediatric (2-17 years) enrollees. Associations of incident obesity/OW with enrollee and area-based residential characteristics were assessed using bivariate statistics. **Results:** In 2006, 37.0% of adult enrollees ($n=155,887$) were obese. Among adult enrollees not obese in 2006 with BMI measured again in 2007 ($n=67,200$), 5.8% became obese by 2007. Incident obesity was associated with age (6.6% for 30-39 years, 3.4% for ≥ 70 years; $P<0.01$) and pre-existing diabetes (7.8%, $P<0.01$) and hypertension (6.7%, $P<0.01$). Incident obesity was higher among adults living in areas with higher percentage of black residents ($P<0.01$), adults with a high school education or less ($P<0.01$), and lower median household income ($P=0.02$). In 2006, 33.7% of child and adolescent enrollees ($n=29,995$) were OW. Among children and adolescents not OW in 2006 with BMI measured again in 2007 ($n=10,743$), 9.2% became OW by 2007. Incident OW was associated with age (11.4% for 2-9 years, 6.3% for 13-17 years; $P<0.01$), male gender (9.7%, $P=0.04$), and pre-existing diabetes (25.0%, $P=0.01$). Incident OW was higher among children and adolescents living in areas with higher percentage of black residents ($P=0.01$), adults with a high school education or less ($P=0.01$), and lower median household income ($P<0.01$). **Conclusions:** Rates of incident obesity among adults and OW among children and adolescents will be compared to similarly calculated rates for metabolic syndrome conditions. Findings inform the need to target lifestyle intervention recruitment to specific subsets of enrollees at risk of becoming obese or OW.

Abstract C-A4-03

BMI, Health Behaviors and Utilization of Preventive Services in the California Men's Health Study

Virginia P. Quinn, PhD, MPH, *Kaiser Permanente Southern California*; Reina Haque, PhD, MPH, *Kaiser Permanente Southern California*; Steven Jacobsen, MD, MPH, *Kaiser Permanente Southern California*; Jeff Slezak, MS, *Kaiser Permanente Southern California*; Stephen Van Den Eeden, PhD, *Kaiser Permanente Northern California*; Barbara Sternfeld, PhD, *Kaiser Permanente Northern California*; Bette Caan, DrPH, *Kaiser Permanente Northern California*

Background: Two-thirds of U.S. adults are overweight or obese. Obesity is a major risk factor for cardiovascular disease, type II diabetes, and certain cancers including prostate and colorectal. While overweight and obesity are associated with increased morbidity, mortality and health care costs, their association with health behaviors and use of preventive health services is unclear. **Methods:** We examined lifestyle and screening exams in the past 5 years by categories of body mass index (BMI) in the California Men's Health Study ($n=84,170$). The cohort includes Kaiser Permanente members 45-69 years of age in 2003-2004 with nearly 40% belonging to a minority racial/

ethnic group. **Results:** 25% reported healthy weight (BMI=18.5-24.9); 45% overweight (BMI=25.0-29.9); and 19% and 7% obesity categories I or II+ (BMI=30.0-34.9, 35+). In multivariable analyses controlling for sociodemographics and health care characteristics, we found significant differences in health behaviors and use of preventive services by categories of BMI. Obese men reported lower levels of alcohol consumption and were less likely to be a current smoker. On the other hand, overweight and obese men were less likely to consume a diet with <30% of calories from fat [OR (CI), 0.71 (0.68-0.74); 0.49 (0.46-0.51); 0.38 (0.35-0.41)]. A similar trend was seen for physical activity. Overweight and obese men were less likely to participate in moderate activity [OR (CI), 0.81 (0.78-0.84); 0.51 (0.48-0.53); 0.31 (0.29-0.33)] or vigorous activity [OR (CI), 0.73 (0.70-0.76); 0.47 (0.44-0.50); 0.29 (0.26-0.32)]. An inverse trend was found for sedentary behavior. Men with a BMI of 35+ were twice as likely to report sedentary behavior for 6.5+ hours/day [OR (CI), 2.04 (1.90-2.18)]. For screening exams, overweight and obese men were more likely to report having had their glucose, cholesterol, and triglycerides tested, and among men with diabetes, their HgA1c. In contrast, obese men were less likely to report a PSA test [OR (CI), 0.84 (0.79-0.89); 0.74 (0.68-0.80)] or, among men at average risk for colorectal cancer, a screening sigmoidoscopy [OR (CI), 0.84 (0.79-0.90); 0.73 (0.67-0.81)]. **Conclusions:** Despite having more primary care visits, obese men may be at greater risk due to lower utilization of common screening exams. Results suggest targeted efforts are needed to increase cancer screening and physical activity, and lower consumption of dietary fat among patients with elevated BMIs.

Abstract C-A4-04

One-Year Weight Change and Glycemic Control After Diagnosis of Diabetes Mellitus Type 2

Adrienne C. Feldstein, MD, MS, *Center for Health Research, Kaiser Permanente Northwest*; Gregory A. Nichols, PhD, *Center for Health Research, Kaiser Permanente Northwest*; David S. Smith, RPh, MHA, PhD, *Center for Health Research, Kaiser Permanente Northwest*; A. Gabriela Rosales, MS, *Center for Health Research, Kaiser Permanente Northwest*; Nancy Perrin, PhD, *Center for Health Research, Kaiser Permanente Northwest*

Background/Aims: Limited real-world data describe weight change, associated factors, and glycemic control after diagnosis of diabetes. This study evaluated weight trajectories, glycemic control, and associated factors in the first year after diagnosis of diabetes mellitus type 2 in otherwise healthy patients. **Methods:** Participants were patients aged 21-75 with diabetes mellitus type 2 diagnosed between January 1, 1997 and December 31, 2004, identified from electronic medical records. Eligible patients for this retrospective cohort study met weight measurement criteria and did not have a condition associated with unintentional weight change (n=4135). We estimated 12-month patient weight trajectories using growth curve analyses, grouped similar trajectories using cluster analysis, and compared characteristics among groups. **Results:** The four weight trajectory groups were 'higher stable weight' (n=757; 18.3%), 'lower stable weight' (n=2236; 54.1%), 'weight gain' (n=664; 16.0%), and 'weight loss' (n=478; 11.6%). Most patients (65.9%) had some weight loss by 8 months and then regained. After adjustments, weight losers were more likely than gainers to be older, be female, take fewer medications, have had nutritionist visits, and have lower mean glycosylated hemoglobin (HbA1c) levels. Weight losers were less likely to be in a race group at higher risk for obesity, have depression or dyslipidemia, or have taken more than 30 days of a sulfonylurea alone or in combination with metformin. **Conclusions:** Most diabetes patients lost some weight after diagnosis. Weight loss trajectories were strongly associated with better glycemic control when compared to weight gain. Patients with certain characteristics may need more support for weight loss, and most need support for weight loss maintenance.

Abstract C-A4-05

US Immigration is Associated With Obesity Among Asian-Pacific Hotel Workers in Hawaii

Rachel Novotny, PhD RD, *Kaiser Permanente Center for Health Research Hawaii and Univ. Hawaii*; Andrew E. Williams, PhD, *Kaiser Permanente Center for Health Research Hawaii*; Aleli C. Vinoya, BS, *Kaiser Permanente Center for Health Research Hawaii*; Thomas M. Vogt, MD MPH, *Kaiser Permanente Center for Health Research Hawaii*

Background/Aims: The Work, Weight and Wellness (3W) program is a randomized trial funded by the National Institutes of Health, National Heart, Lung and Blood Institute. The program aims to decrease obesity among hotel workers in Hawaii. In this study we examined patterns of obesity in relation to migration status and ethnicity at baseline. **Methods:** Four thousand five hundred thirty hotel workers in 31 hotels were measured for weight, height and waist circumference at baseline, prior to intervention. Ethnicity and place of birth were self-reported. Data analysis was done using SAS. **Results:** Forty-five percent of hotel workers were born outside of the U.S. Of hotel workers born in the U.S., 35% were born in Hawaii, while 9% were born on the U.S. mainland. Among hotel workers born outside of the U.S., 38% were born in the Philippines, 3% in Japan, 3% in Southeast Asia, 1% in other Pacific islands, and 12% in other locations. Self-reported ethnicity was 44% Filipino, 32% other Asian, 13% Pacific Islander, 9% White and 3% other ethnicity. The body mass index (BMI) of immigrants was 2.2 kg/m² higher than that of non-immigrants, on average, and waist circumference was 5.1 cm higher, on average. The BMI of males was greater than that of females and the interaction of sex and immigration on BMI was significant. The BMI of Pacific Islanders and Filipinos was greater than that of Whites, while BMI of Asians was lower than that of Whites; however, Filipino BMI was no longer greater than White BMI after adjusting for migration status and sex. Being immigrant, male and Pacific Islander was associated with greater BMI, while being Asian was associated with lower BMI. **Conclusions:** Birth outside of the U.S., male sex, Pacific Islander ethnicity and Filipino ethnicity were associated with obesity. Future study will examine the differential effects of the 3W intervention program on obesity, and if this was modified by migration status, sex and ethnicity.

Cancer

Abstract C-B1-02

Spiritual Quality of Life of Long-Term Colorectal Cancer Survivors With Permanent Intestinal Stomas

Mark C. Hornbrook, PhD, *Center for Health Research, Kaiser Permanente Northwest*; Carol M. Baldwin, PhD, RN, *Arizona State University*; Christopher Wendel, MS, *Southern Arizona VA Health Care System*; Marcia Grant, PhD, RN, *City of Hope National Medical Center*; Michelle Ramirez, PhD, *University of the Sciences*; Carmit McMullen, PhD, *Kaiser Permanente Northwest*; Lisa Herrinton, PhD, *Kaiser Permanente Northern California*; Jane Mohler, PhD, *University of Arizona*; Robert S. Krouse, MD, *Southern Arizona VA Health Care System*

Background: Religious and spiritual beliefs can influence adjustment to medical treatments and outcomes. This mixed methods cross-sectional study examined spiritual quality of life (QOL) of long-term colorectal cancer survivors with permanent intestinal ostomies. **Methods:** Men (n=88) and women (n=55) with ostomies whose total scores fell in the upper (n=71) or lower (n=72) quartiles of the validated City of Hope Quality-of-Life ostomy-specific (COHQOL-O) survey provided quantitative and qualitative data regarding spiritual dimensions of QOL. Analyses included chi-square and analysis of variance $\pm$ standard deviations with significances set at $P<0.05$. Content analysis was used to explicate meanings for spirituality items in survey narratives and focus groups. **Results:** The high COHQOL-O group was significantly more likely to be older (74 $\pm$ 9 vs. 70 $\pm$ 1.3, $P<0.01$) and married or partnered (72% vs. 55%, $P<0.03$). Upper quartile subjects had more favorable scores for the spiritual items Sense of Inner Peace, Hopeful, Reason to be Alive, and support from spiritual (e.g., prayer) and religious (e.g., church) activities compared to the lower quartile (all $P<0.0001$). The two groups did not differ for the item Positive Changes in life related to having an ostomy. Qualitative comments made by participants reflected the meaning of their high or low spiritual QOL scores. **Conclusions:** Spiritual