survivors completed the survey. While more controls felt comfortable with their diet less than one month after operation (48.6% vs 41.3%), a greater proportion took over one year or never felt comfortable with their diet (21.9% vs 18.0%). Ostomates had less problems with constipation ($P=0.001$), and more with gas ($P=0.02$) than controls. More cases avoided vegetables ($P=0.007$), while a greater proportion of controls avoided carbonated beverages ($P<0.001$) and utilized specialty diets ($P=0.03$). There were multiple dietary and behavioral changes utilized to control bowel habits, including the timing of eating, exercise, and food avoidance. **Conclusions:** CRC survivors utilize multiple techniques to control their bowel function, and thus control their lives. Insight into these methods can lead to meaningful interventions for this population of cancer survivors.

Abstract PS1-24

Fatigue and Sleep Quality of Persons with Ostomies: Gender Differences

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Background: Some colorectal cancer (CRC) patients require a permanent ostomy (a surgically created opening on the exterior of the abdomen that allows feces to be eliminated from the body). An ostomy can create psychosocial distress and affect body image, sense of self, and sexual functioning. Few studies have examined health-related quality of life (HR-QOL) relevant to disturbed sleep of CRC survivors with ostomies; moreover, no studies have examined gender differences of ostomates on quality of sleep and fatigue. **Methods:** HR-QOL was examined in this cross-sectional study of long-term (>5 years) CRC survivors with ostomies, who receive care at Kaiser Permanente health systems in California, Oregon, Washington, and Hawaii. Participants completed the City of Hope Quality of Life Ostomy questionnaire, which includes demographic and scaled items, and narrative comments for greatest challenges associated with having an ostomy. Two items, 'fatigue' and 'sleep disruption' (scale from 0 to 10), served as dependent variables. Age, ethnicity, education, partnered status, body mass index (BMI), and time since surgery were included in models. Data were analyzed using t-tests and ordinal logistic regression modeling with significance set at $P<0.05$. **Results:** Women ($n=118$) compared to men ($n=168$) were less likely to be partnered (25% vs 55%, $P<0.0001$). There were no differences for age, ethnicity, education, BMI, or time since surgery. Regression modeling for fatigue showed women to have lower HR-QOL compared to men (0.65 decrease, $P<0.01$), adjusted for time since surgery (modest positive association, $P<0.05$). Regression modeling for sleep disruption also showed women to have poorer HR-QOL (0.57 decrease, $P<0.01$), adjusted for age (modest positive association, $P<0.001$). CRC surgical controls without ostomy showed no significant gender difference for either HR-QOL item. Qualitative narrative comments suggest sleep disruption is associated with fear of, or actual, leakage during hours of sleep. **Conclusions:** Women CRC survivors with ostomies report more fatigue and sleep disruption that may contribute to poorer HR-QOL compared to their male counterparts. Higher rates of fatigue for women are consistent with gender differences in other health conditions. These findings can provide a foundation for gender-specific ostomy interventions to improve sleep quality.

Abstract PS1-25

Statin Use is Associated With a Reduced Risk of Colon Cancer Recurrence

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Background: A significant body of data suggests that statin use reduces the risk of developing colon and other cancers, although other data have not confirmed these findings. **Aims:** To examine whether statin use helps prevent

recurrence of colon cancer in patients with resected disease. **Methods:** We conducted a retrospective analysis of patients treated for stage I-III colon cancer in a large metropolitan health system. Incident cases of colon cancer between 1995, and the present were identified through the tumor registry of the health plan-owned hospital. All identified cases were then crosschecked against the HMO membership database. Data regarding statin use was pulled from the HMO outpatient pharmacy database. For each patient all available data from the 5-year window prior to first diagnosis of cancer until either recurrence or most recent data available was obtained. Demographic data and survival data from the tumor registry were then combined with pharmacy data regarding statin use in a single database for analysis. Recurrence and time to recurrent disease were compared in statin users and non-users. **Results:** A total of 358 colon cancer cases were available for analysis. Median follow-up of patients after diagnosis of colon cancer was 49 months. Eighty-nine patients (24.9%) used statin drugs for some period of time with a median of 780 days of use. Median age of all patients enrolled was 69 years (range, 24-95 yrs). Statin use was higher in patients ages 61-75 years (33%) than in those aged 24-60 years (22%) or those aged 76-95 years (19%) $P=0.02$. There was no association between statin use and stage at diagnosis. Only 6 of 89 patients (6.7%) with any statin use relapsed as opposed to 43 of 269 (16%) of patients with no statin use (Fisher's exact, $P=0.03$). Kaplan-Meier analysis of relapse curves found a significant difference in relapse between groups with a 2-year recurrence rate of 3.7% among statin users and 10.1% among non-users (Log Rank, $P=0.03$, using age stratification). **Conclusions:** Statin use was associated with a decreased risk of recurrence in patients diagnosed with stages I-III colon cancer in this study. Further study of statin use in the prevention of colon cancer is warranted.

Abstract PS1-26

The Content of Physician-Patient Discussions During Routine Health Maintenance Exams

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Background: Little is known about the content of routine health maintenance exams (HMEs) delivered by primary care physicians (PCP) in today's busy primary care practices. We describe the frequency of patient-physician cancer screening discussions amidst the competing demands of other preventive services during routine HMEs to understand HME content in the real world of primary care. **Methods:** We use direct observation of PCP-patient interactions during HMEs to examine discussions around breast, colorectal (CRC), cervical, lung and prostate cancer screening and other lifestyle topics. Visits represent the first 103 visits completed in an NIH-funded study using in-office observations, audio-recordings and patient surveys to study CRC screening recommendations. Physician participants ($n=34$) are general internists or family physicians practicing in a large integrated delivery system in southeast Michigan with patient-specific electronic medical record prompts for evidence-based cancer screening. Patient participants were aged 50-80 years who scheduled an HME with a participating physician and were due for CRC screening (i.e., no colonoscopy or barium enema within 10 years, flexible sigmoidoscopy within 5 years, or fecal occult blood testing (FOBT) within 12 months). **Results:** CRC screening was mentioned in 96% of observed HMEs. Among visits by women ($n=74$), 85% mentioned breast and 51% cervical cancer screening. Among visits by men ($n=29$), 72% mentioned prostate cancer screening. Lung cancer screening was mentioned in 15% of visits. The physician initiated these discussions more than 80% of the time, with the exception of lung cancer screening (53%). Colonoscopy was overwhelmingly the procedure recommended for CRC screening (82%), followed by FOBT (37%) and others (4%). Other topics frequently discussed were exercise (88%), cholesterol (81%), smoking (68%), weight (68%), blood pressure (65%), and diet (65%). While these discussions were usually initiated by physicians, patients were relatively more likely to initiate discussions around weight (41%) and diet (35%). **Conclusions:** In this study

of patients due for CRC screening, discussions did occur and specific recommendations frequently were made for CRC screening. Other cancer screening and preventive issues were discussed, but less frequently. PCPs are uniquely positioned to impact the delivery of these preventive measures and seem to be successfully striving to meet guidelines, particularly those for CRC screening.

Abstract PS1-27

Enrollment Rates of Hispanics Identified Via Surname for a Web-Based Nutritional Intervention

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Objective: To describe the enrollment rates and individual characteristics of Hispanics and non-Hispanics invited to participate in a multi-site Web-based intervention promoting increased fruit and vegetable consumption (MENU). **Methods:** A total of 5751 randomly selected members were invited to enroll in a Web-based nutritional study. Probable Hispanic status was determined by the Latino surname algorithm based on the Passel-Word Spanish Surname List utilized by the 1990 US Census. We computed enrollment rates stratified by ethnicity status and used logistic regression to examine characteristics associated with the likelihood of enrollment. To address potential bias associated with the use of Hispanic surname, sensitivity analyses were conducted comparing self-reported ethnicity of enrolled members to the Passel-Word-identified ethnicity. **Results:** There were 2871 probable Hispanics and 2880 probable non-Hispanics invited to join the study. A total of 174 (6.1%) probable Hispanics and 340 non-Hispanics (11.8%) enrolled in the study for a total enrollment of 514 (8.9%) invitees. Overall, Hispanics were 47% less likely to enroll, females were four times as likely to enroll, and those people with a median income census tract less than \$41,994 were 44% less likely to enroll. Stratifying by probable ethnicity status suggests Hispanics females were 87% more likely to enroll and Hispanics with a median income census tract less than \$41,994 were 46% less likely to enroll while the odds for non-Hispanics enrolling increased 14% for each decade increase of age and non-Hispanics with a census tract median income less than \$41,994 were 43% less likely to enroll in MENU. Self-reported Hispanic rates showed a sensitivity of 91.1% and specificity of 88.8%. Total enrollment of Hispanics into MENU totaled 192 (7.6%), of which 146 (76.0%) were enrolled by Kaiser Permanente Colorado. **Conclusions:** This study demonstrates that identifying Hispanics through surname for oversampling can be highly successful in terms of sampling yield and accuracy. However, results from this study suggest that Hispanics are significantly less likely to enroll in a Web-based nutritional intervention. Additional research is needed to identify methods of attracting more Hispanic subjects to these kinds of interventions.

Abstract PS1-28

The Relationship of Social Support and Smoking Cessation Among African Americans Enrolled in the Project Quit Study

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Background/Aims: African-Americans are disproportionately affected by the health consequences of smoking. Cigarette smoking is one of the main contributors to lung cancer, which is the second most common cancer among this group. Social support is a key component of effective non-pharmacological cessation programs. The objective of this analysis was to examine the association of social support and smoking cessation at 6 months among African-Americans enrolled in a randomized trial. **Methods:** In 2006, 204 African-American members from two large managed care organizations enrolled in Phase I of a Web-based smoking cessation intervention, Project Quit. In addition to the Web-based intervention, participants received a free course of nicotine replacement therapy (patch). All participants received layers of tailored messages to encourage cessation. Each participant was asked at baseline if they had someone who would be supportive while he/she quit smoking. The number of supporters was categorized in three groups: (1)

0-1 supporters; (2) 2-4 supporters; and (3) 5 or more supportive persons. The primary outcome of the study was 7-day abstinence at 6-month follow-up, regardless of use of other cessation products and services. Logistic regression modeling was used to test the association between smoking cessation with the number of social supports and tailoring intensity. **Results:** Among the 202 African-Americans, 65 (32.2%), 98 (48.5%) and 39 (19.3%) reported 0-1, 2-4, and 5 or more supportive persons for smoking cessation, respectively. For the 46 people who quit, we observed a trend toward significance for social support and quitting ($P=0.07$). The odds ratio for quitting for group 2 versus 1 was 0.86 (95% CI, 0.38-1.94; $P=0.71$), and for group 3 versus 1 was 2.35 (95% CI, 0.91-6.05; $P=0.08$). Adding tailoring intensity did not contribute to cessation ($P=0.70$). **Conclusions:** A larger support network specific to smoking cessation is advantageous beyond personally relevant computer tailoring for this African-American population. Our findings suggest that people with higher social support are more likely to quit regardless of the tailoring intensity. Further research should explore the synergistic relationship of computer-based interventions and personal support networks in smoking cessation among African-Americans.

Abstract PS1-29

Social Characteristics and Health Care Utilization Associated With Exemption From Immunization

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Background: This study evaluated usefulness of automated databases in identifying vaccine exemptions. It also studied social characteristics and health care utilization patterns of children who were exempted from immunization. **Methods:** We conducted an observational cohort study of children aged 0 through 6 years enrolled in two large health plans. We used both the immunization registry and medical record to identify the child's vaccine exemptions and assess the child's status regarding recommended vaccinations. We categorized children into racial, education, and income groups based on the distribution of these characteristics in his/her community from 2001 census data. We used administrative data to identify the child's utilization on well-child, outpatient, prescriptions, ER and hospital visits. The knowledge of these characteristics will provide critical information on designing interventions to improve immunization compliance and long-term follow-up with these children. **Results:** We compared exemption information found in the medical record with that found in the administrative data of our chart review sample. Although negative predictive value of the electronic data compared to the chart reviews was 92% and 90% for 2-year and 6-year olds, respectively, positive predictive value was only 52% and 62%, respectively. Additionally, our results indicate that excluders are more likely to come from well-educated, higher income areas than non-excluders. Excluders were found not to have opted out of the health care system and continue, although less frequently for the age 2 group, to use services in the health plans. **Conclusions:** Without better-automated data and the need for chart reviews, tracking of children with immunization exemption status would be expensive. Since parents of excluders are well-educated, interventions should focus on communicating to parents of excluders the most updated information on vaccines and vaccine preventable diseases.

Abstract PS1-30

Parent Perceptions of Neighborhood Safety and Children's Physical Activity: Implications for Health Messages and Advice

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Background: Physical activity (PA) in early adolescence has been demonstrated to be associated with not only the risk of pediatric overweight and obesity but also with the trajectory of lifestyle habits and the risk of