

overweight and obesity in early adulthood. The specific aim of this study was to assess how parents' perception of neighborhood safety is associated with PA in children aged 10-12 years. **Methods:** Based on a cross-sectional design, 201 parent-child dyads were enrolled from a random sample of Kaiser Permanente members in two distinct geographic areas in Oakland, California, designed to represent relatively high and low SES based on zip code and census tract information. Parents and children were interviewed by telephone and asked their perception of the neighborhood environment (a modification of the Neighborhood Environment Walkability Survey (NEWS)) including factors related to traffic and crime safety, social capital, and aesthetics, and about frequencies of specific crimes. For each domain, a summary score was created, which was the mean of the score of all items in the domain. Parents reported the number of days/week their child participated in vigorous and moderate PA. Ordered logistic regression was used to model the association between the NEWS/crime frequency variables and parents' report of children's vigorous and moderate physical activity. Analyses were stratified by high-income versus low-income zip codes and adjusted for child's gender, parental SES variables and race/ethnicity. For each model, we obtained the odds ratio, 95% confidence interval, *P*-value, and *q*-value to adjust for repeated testing in each domain. **Results:** In the adjusted model, items from the NEWS that were significantly associated with parents' report of children's vigorous PA included safety of parks at night and the presence of crosswalks and pedestrian signals. The crime frequency summary score and frequency of some specific crimes (i.e., murder, being beaten up, teens carrying guns) were also associated with children's vigorous PA. **Conclusions:** The results of this study indicate the importance of considering parents' concern for children's safety in the design of programs, interventions, health messages and counseling that aim to promote children's physical activity.

Abstract PS1-31

The Association Between Body Mass Index and High Sensitivity C-Reactive Protein by Gender

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Background/Aims: Prior studies relating inflammatory biomarkers to obesity demonstrated a correlation between elevated body mass index (BMI) and elevated C-reactive protein (CRP). To date, however, little research has examined the association of the newer, high-sensitivity CRP assay (hs-CRP) to BMI of both men and women. **Methods:** In this cross-sectional study, the association between BMI and hs-CRP by gender was estimated in 376 subjects recruited from a network of community-based, primary care clinics in eastern Pennsylvania. The data were analyzed with Spearman's correlation and multivariate linear regression, accounting for age, gender, high density lipoprotein, and hypertension. The natural logarithmic transformation was used due to the presence of right-skewness of the distribution of hs-CRP. **Results:** All subjects were Caucasian, 52% were male with a mean age of 62, BMI of 30.6. The sample consisted of 21% with diabetes mellitus and 72% with hypertension. There was a significant positive association between BMI and hs-CRP ($r=0.28$) for the entire sample. This association was slightly weaker in males ($r=0.24$) compared to females ($r=0.31$), and did not significantly vary ($P=0.9425$). The adjusted associations demonstrated limited confounding (males: $r=0.23$; females: $r=0.28$), suggesting that BMI may be an independent factor for elevated hs-CRP. **Conclusions:** BMI and hs-CRP correlate positively, slightly more for women than men. In patients with elevated BMI, elevated hs-CRP has potential for use as a cardiac risk stratification tool. Elevated levels of hs-CRP in the obese individual could direct initiation of statin use to reduce the chronic inflammatory state or assist in cardiac risk stratification. In a time of limited patient resources and tighter budgets, these data give promise for the judicious use of biomarkers based on BMI for cardiac risk stratification.

Abstract PS1-32

Attorney General Consumer and Prescriber Grant Program. Changing Prescriber Behavior: The Meyers Primary Care Experience

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Background: The Meyers Primary Care Institute (MPCI) is one of 28 Attorney General Consumer and Prescriber Grant Program grantees. Four HMORN CERTs sites, including MPCI, received grants. The Institute is developing curricular interventions to educate prescribers regarding the influence of pharmaceutical marketing on prescribing behavior. Our objectives are to encourage prescribers to incorporate understanding of this influence into their practice and utilize best evidence to improve patient care. **Methods:** In 2006-2007 the MPCI convened a multidisciplinary group of advisors with skills in research, patient care and education. We convened focus groups of prescribers (NP, PA, PharmD and MD) to learn about their experiences with pharmaceutical representatives. Integrating this evidence with detailed data from the peer reviewed literature and recommendations regarding best-practices in electronic learning, we are developing 6 educational modules: (1) Pharmaceutical Development and Regulation; (2) Evidence-Based Medicine; (3) Pharmaceutical Marketing; (4) Organizational Influence; (5) Communication with Pharmaceutical Representatives; and (6) Communication with Patients. These modules will be freely accessible to all prescribers via web-based delivery systems, will include downloadable PowerPoint presentations and content notes for faculty who wish to integrate them into their own curricula, and PDA downloads for clinicians. **Results:** We will showcase elements from the modules, discuss issues of development and implementation, and suggest ways in which HMORN partners may be able to utilize these and other grantee resources to improve the practice of their clinical partners.

Abstract PS1-36

Secular Trends in Diagnosis and Antibiotic Treatment of Childhood Infections

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Background: Antibiotic prescribing rates for young children have declined dramatically in recent years. We aimed to determine what drove this decline in 8 communities throughout Massachusetts. **Methods:** We obtained automated claims data from four large health insurers on antibiotic dispensings and visit diagnoses in children 3 to <24 months of age and 24 to <48 months of age from Sept 1998-August 2003, and created diagnosis categories for common infections. We determined diagnosis rates (# visits for each diagnosis/total # of person-years [p-y]), antibiotic treatment rates (# visits for each diagnosis associated with an antibiotic/ total # of p-y) and the percent

treated (# visits for each diagnosis associated with an antibiotic/total # of visits for each diagnosis). We additionally assessed antibiotic dispensings not associated with a specific visit. **Results:** We analyzed a total of 78,253 p-y. Among those aged 3 to <24 months, overall treatment rates decreased from 2.8 to 2.2 antibiotics/p-y (22%). Acute otitis media (AOM) was the most common diagnosis (2.1/p-y) and the most frequent reason for antibiotics (1.4/p-y) in 1998-1999. These decreased by 19% and 20%, respectively, by 2002-2003 ($P<0.0001$), accounting for 45% of the overall decrease. Antibiotics that were not linked to a visit accounted for another 28%. Among those aged 24 to <48 months, overall treatment rates decreased from 1.7 to 1.5 antibiotics/p-y (11%). AOM was again the most common diagnosis (1.0/p-y) and the most frequent reason for antibiotics (0.7/p-y) in 1998-1999. These decreased by 12% and 11%, respectively, by 2002-2003 ($P<0.0001$). AOM treatment accounted for 43% of the overall decrease in antibiotics and unlinked antibiotics accounted for another 52%. The percent of AOM associated with antibiotics remained stable in both age groups. **Conclusions:** In spite of new recommendations for 'watchful waiting' for some cases, the percent of AOM treated, once diagnosed, remained stable. The substantial overall decline in antibiotic prescribing was driven by declines in rates of diagnosis of AOM and antibiotics not linked to a visit. Unlinked antibiotics included refills and prescriptions after telephone encounters. Decreases in antibiotic use appear to be the result of changes in diagnostic thresholds rather than treatment of diagnosed conditions.

Abstract PS1-37

Dentist Attributes Associated With Sealant Placement

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Background: Dental sealants have been shown to be effective in reducing caries by 80%, however, not all children are at risk of developing caries and therefore it is more efficient to seal the teeth in those children at high caries risk. This was an examination of the relationship between patient and dentist characteristics and the application of sealants. **Methods:** This study utilized claims and administrative data from a large dental managed care organization in Minnesota. Sealant placement was a covered benefit in the study period. This study was conducted using the data from 6173 children 6 years of age between 1995 and 2006 who had dental encounters with either a general or pediatric dentist and no prior record of receiving a sealant. They all had an assessment of their level of caries risk (low, moderate or high) at age 6. Sealant placement within 6 months of the caries risk exam visit served as the dependent measurement. **Results:** There were 73 general dentists represented in the study but only 3 pediatric dentists. However, the pediatric dentists had about 20% of the encounters. About 22% of patients were seen by a female dentist and the medium age of the dentist seen was 45. Sixty-two percent of children were deemed at low caries risk and 15% and 23% were at moderate and high risk. Logistic regression analysis predicting 6-month sealant application found higher sealant application rates among children at high or moderate risk (OR 1.89, $P<0.0001$; OR 1.54, $P<0.0001$) and female children (OR 1.39, $P<0.0001$). General dentists were more likely to apply sealants than pediatric dentists (OR 1.94, $P<0.0001$) even though pediatric dentists were almost twice as likely to rate patients at high risk (38% vs. 20%, $P<0.0001$). Younger dentists (under age 55) were more likely to apply sealants (OR 1.21, $P=0.0483$). **Conclusions:** It is encouraging to see that children at moderate and high risk of developing caries are more likely to be sealed than children at low risk. This is not consistent with earlier studies but may be related to the complete coverage of sealants in the study population. The observation that pediatric dentists see more high risk patients but are less likely to seal may relate to different practice patterns or could be an artifact of the small numbers of pediatric dentists in the study. The reduced sealant rate for older dentists may be related to earlier dental school training not encouraging sealant use.

Abstract PS1-38

Is the Placement of Dental Sealants Related to Caries Risk?

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Background: The purpose of this investigation was to examine the relationship between a caries risk assessment (CRA) score and the subsequent application of sealants. **Methods:** Data were collected from the data sets of a large dental managed care organization in Minnesota. Sealant placement was a covered benefit in the study period. This study was conducted using the data from 8458 children 6 years of age between 1995 and 2006. Six percent of the subjects (472) had a prior history of a sealant at the time of their first CRA and were therefore excluded. This left 7986 subjects. CRAs were classified into 3 scores; low, moderate and high and all analyses were made relative to the first caries risk assessment at age 6. **Results:** The distribution of initial CRAs found 61.4% with low risk, 15.3% with moderate, and 23.3% at high risk. In the high risk category 36.9% of children had dental coverage through public programs versus 18.8% for the low risk group ($P<0.001$). Of the children at low risk 19% received a sealant within 6 months of their CRA while among the children with moderate or high risk, 26% and 27% had subsequent sealant within 6 months ($P<0.0001$). When the 6-month follow-up timeframe to include any later sealant was lifted, sealant rates were 69%, 69% and 67% ($P=0.19$). **Conclusions:** First, higher risk children are composed of significantly more children from lower socioeconomic status. Second, it appears that when a child of 6 years of age is assessed to be at high risk for the development of subsequent caries, they are more likely to receive a sealant within the period following the caries risk assessment. However, as the interval after the caries risk assessment lengthens, other factors impact the likelihood of a sealant application in the low-risk group and their rate approaches that of the high-risk children.

Abstract PS1-39

Maximizing Opportunities to Implement and Evaluate Translating Research Findings into Clinical Practice (TRIP)

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Background: The HMORN is an excellent laboratory for translational research, being comprised of a diverse group of health care delivery systems with associated research staff. **Methods:** We interviewed each HMO on formal organizational characteristics of the research organization (RO) and the delivery system (DS), as well as the structural relationship between the RO and the 'parent' system. The interviews focused on TRIP: (1) modifiers, (2) facilitators, and (3) barriers. HMO confidentiality was maintained for all interview data. **Results:** Of the 15 HMORN members, 13 HMOs participated, 9 with individuals from both RO and DS, 2 with individuals from RO only, and 2 with individuals from DS only. Our results contain information from interviews, emailed questionnaires sent to all HMOs, and HMO websites. Results are organized by TRIP areas of focus: **TRIP:** We assigned a TRIP score for each HMO as follows (% of HMO): 1=no system for TRIP or dependent on individual clinicians (7.7%); 2=TRIP driven by departments or care teams, with some information technology support (38.5%); 3=systematic TRIP plus electronic medical record (EMR) functions and decision support (46.2%); and 4=RO integrated into level 3 above (7.7%). **Modifiers:** We created a variable called 'chaos' for both RO and DS where 1=no chaos and 5=total chaos. Most felt a minor degree of chaos was beneficial as it initiated improvement measures. Of the 13 HMOs, 7 were 'academically' oriented with research tending to focus on mainstream science (e.g., NIH R01 grant support). A 3rd modifier was EMR with variation in data use by various organizations and the degree to which ROs had direct access. **Facilitators:** We identified 4 types of facilitators: quality and types of communication between RO and 'parent', extent to which interventional research is conducted in the DS, amount of consulting done by researchers in the DS, and the value placed on publishing results. **Barriers:** This consisted primarily of issues related to communication, implementing change, and organizational