Background: With mounting economic burdens of diabetes and its complications, its implications on dental cost are not well studied. Diabetes has been established as an important risk factor for periodontal disease and subsequent tooth loss, but surprisingly few longitudinal studies have examined the relationship between diabetes and dental care costs. ObjectiveTo evaluate associations between diabetes and costs of dental care from a 5-year prospective observation of the insured with and without diagnosed diabetes. **Methods/Research Design:** This was a cohort analysis using linked data from Washington Dental Service and Group Health Cooperative on enrollees continuously and dually insured from 2002-2006. Adults with and without diabetes were matched on baseline characteristics using propensity scores and then compared on 5 years of follow-up dental costs. **Results:** Of the 49,023 linked enrollees that met the study inclusion criteria, 4,038 (8.24%) enrollees met criteria for diabetes. Post matching results show that adults with diabetes had 3% lower attendance to a dentist compared to the matched controls ($P < 0.001$). Among those with a dental visit, diabetes patients were costlier than the control group in non-surgical periodontal procedures, extractions and removable prosthetics ($P < 0.001$ for all) and were less expensive in diagnostic, preventive and restorative (fillings and crowns) procedures ($P < 0.001$ for all). There was no significant difference in total dental care cost between the two groups. **Conclusions:** Despite the lack of difference in total cost for dental care, the distribution of costs across procedure-classes was significantly different for patients with diabetes with higher emphasis on tooth replacing procedures than tooth-retaining procedures. In an administrative services-only arrangement with indemnity and PPO plans, the improved utilization of preventive dental care could accrue cost savings to patients and employers through reduction in downstream costs related to intensive procedures and in indirect costs related to lost productivity and time.

Keywords: Diabetes, Dental costs

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Interventions and Clinical Trials

PS1-10:

The Effectiveness of Screening and Brief Intervention on Reducing DWI Citations

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Objective: The purpose of this study was to use retrospective data to assess the long-term effectiveness of screening and brief intervention (SBI) for at-risk alcohol users and its impact on traffic safety by looking at DWI citations. A second objective was to study ethnicity differences in response to SBI. **Method:** During the time period from 1998 to 1999 LCF Research, together with the Lovelace Health System, participated in the Cutting Back study of screening and brief intervention for at-risk drinkers. A total of 426 subjects exhibiting at-risk drinking behaviors from the New Mexico cohort included 211 subjects who received a brief intervention and 215 in the control group who received usual care were used for the study. This study examined DWI citations for all 426 subjects during the five years following the Cutting Back study. **Results:** The brief interventions were shown to have had a significant impact on reducing DWI citations for at-risk drinkers with the benefit lasting for the 5 years duration of the study. The screening and brief intervention was found to be most effective in reducing DWI citations for Hispanic at-risk drinkers. **Conclusion:** Evidence is presented to support that screening to identify at-risk drinkers followed by a brief intervention has a statistically significant lasting impact on improving traffic safety.

Keywords: SBI, DWI, Intervention

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PS1-37:

Preliminary Findings of a Shared Decision-Making Exploratory Study: Improving Rates of Appropriate Aspirin Use

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Background/Aims: Prophylactic aspirin use is recommended for reducing the risk of stroke in women and myocardial infarction in men. The United States Preventives Services Task Force (USPSTF) recommends a shared decision-making approach between patients and providers to consider the benefits and harms of daily aspirin use. We conducted an exploratory study using a three-arm randomized controlled approach to compare usual care to two tools that could facilitate shared decision-making. **Methods:** Subjects at risk for cardiovascular disease (CVD) were randomized at three clinic sites at Geisinger. Intervention patients received either: 1) a printed "pre-visit summary" (PVS) that described their specific Framingham CVD risk, benefits of aspirin use, and harms of GI bleed (PVS-only arm); or 2) PVS plus an interactive, graphical clinical decision support (CDS) tool embedded in the electronic health record for providers to use during the clinical encounter (PVS+CDS arm). Control patients were given neither tool, but were followed to monitor secular trends. Patients were surveyed within four weeks of their visit and asked about conversations about aspirin with the clinician and appropriate use. All analyses were intention-to-treat. **Results:** Conversations about appropriate aspirin use between patient and provider occurred for 52% of PVS+CDS subjects, 39% of PVS-only subjects, and 19% of control subjects. Aspirin was initiated by 31% of PVS+CDS subjects, 24% of PVS-only subjects, and 17% of control subjects. "Daily" aspirin use (defined as at least 3-4 times a week) was reported by 27% of PVS+CDS subjects, 17% of PVS-only subjects, and 8% of control subjects. All differences between the three study arms are statistically significant ($P < 0.05$). Additional analyses are underway. Less than 10% of providers in the PVS+CDS arm activated the shared decision-making tool. We will conduct interviews with providers to better understand the low activation rates. **Conclusions:** In an exploratory study, we demonstrated clinically meaningful and significant improvements in discussions of appropriate aspirin use between patients and their providers, which correlated with aspirin initiation and regular use, in a population of adults at risk for cardiovascular disease. Shared decision making via health information technology can activate patients and providers resulting in increased use of appropriate preventive care.

Keywords: Shared decision-making, Aspirin

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PS1-03:

Expanding the Functional Scope of Institutional Review Board Review of Multi-Site Research in the HMO Research Network: from Data-Only Studies, to Non-Clinical Interventions, to Clinical Trials

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Background/Aims: The member institutions of the HMORN have long been concerned about their ability to conduct multi-site research in a timely and efficient manner. Frequently in the past, investigators in multi-site studies have felt constrained by the requirement of submitting proposed research to multiple IRBs. In June 2008, the HMORN Governing Board approved a Standard Operating Procedure (SOP) that streamlined this submission process for data-only studies (Version 1), and in September 2010, the SOP was revised (Version 2) to permit the inclusion of all HMORN multi-site research except clinical trials. IRB Administrators and Directors from around the HMORN met in December 2010 to discuss strategies for harmonizing clinical trials review as well as establishing a Network-wide IRB Authorization Agreement for the conduct of HMORN multi-site research. **Methods:** Investigators from around the HMORN have been queried regarding their knowledge of and experiences with Version 1 of the SOP, with an aim being to improve both the visibility and efficiency of the process. Version 2 incorporates their suggestions. The results of the December 2010 meeting of

IRB Administrators and Directors will be reported on as well. **Results:** Data are in the process of collection, and will be reported on at the March 2011 HMORN Conference in Boston. **Conclusions:** In order to maintain and improve efficiency and effectiveness, as well as meet the turn-around times of funding agencies, it is imperative that multi-site research review strives to continuously improve quality without sacrificing the imperative to conduct rigorous ethical and regulatory reviews of proposed research. The processes established in the HMORN work toward this goal, and require the cooperation of the Network-wide research enterprise.

Keywords: Multi-site research, Institutional Review Board, Clinical trial
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PS1-43:

Pilot Study of the Preparing for the Best Transitional Care Preparatory Intervention

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Background/Aim: Inadequate patient engagement and other factors put many older adults at high risk for adverse events during hospital-to-home transitions. Nearly half of all hospitalized consumers experience one or more medical errors following hospital discharge and almost 25% experience an adverse event related to these errors. However, through interventions that address these transitions from hospital to home and their potential risks, many of these errors can be prevented. Currently, most patient-directed care transition interventions are initiated during hospital stays. By actively involving older adults in a patient engagement intervention prior to hospitalization, skills can be learned that could reduce their risk of an adverse event occurring during the hospital-to-home transition. **Method:** This is a pilot study of the feasibility and efficacy of a new intervention for older adult patients. Standardized clinicians (SCs) will participate in scenarios designed to teach and assess older adults' skills for actively participating in hospital-to-home transitions. Patients 65 and older will be recruited from the Scott & White Healthcare system. Participants will take part in a simulated transition from hospital to home with the SCs, followed by a debriefing session. Participants will then attend a workshop that will introduce intervention tools and role play activities to facilitate active engagement in hospital-to-home transitions. The workshop will be followed by additional simulation scenarios. Three months later, participants will return to complete a follow-up scenario session where simulation scenarios will be experienced again. The retention of transition-related behaviors learned in the first session will be evaluated. Impact of the intervention will be evaluated using self-report measures, observed transition-related behaviors during simulated scenarios, and qualitative reports of SCs. The intervention group will be compared to a non-intervention control group. **Expected Results:** Participants are expected to demonstrate more transition-related health behaviors (e.g., asking relevant questions at discharge, reconciling medications, and documenting goals) after training compared to pre-training. Behaviors are expected to persist after three months. SCs are expected to report benefits of the SC experience in addition to suggestions for improving the value of the intervention experience both for participants and for SCs.

Keywords: Transition, Intervention
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PS1-02:

Differential Impact of Caregiving Satisfaction and Stress on Changes in Caregivers Self-Reported Health Status: Findings from REACH-II Intervention

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Background/Aims: Caregiving for a person with dementia is stressful and challenging. Caregiving stress and burdens may have significant negative impact on caregivers (CG) self-reported health status. Despite caregiving stress and burdens, caring is also rewarding and important work for many CGs. The net impact of these positive and negative aspects of caregiving on CGs health is largely unknown. The objectives of this study are to (a) to examine the net impact of positive aspect of caregiving (PAC), depression, stress and burdens on changes in CGs self-reported health status, and (b) how this impact varies by race and ethnicity. **Methods:** Six-hundred and forty five caregivers (212 Hispanic, 219 White, and 214 Black or African-American) participated in the REACH-II study, a multisite psycho-educational caregiving intervention trial. CGs were randomly assigned into the REACH II intervention or a minimum contact control group. CGs in the intervention group received nine in-home (1.5 hours each), and 3 telephone (half hour each) sessions over a 6-month intervention period. This study examined the change in caregivers' health status from baseline to six-month follow-up for both the intervention and the control group. Health status was defined as a binary variable indicating whether a caregiver's health status improved, remained the same, or decreased. Two primary independent covariates were the Zarit burden score (self-reported physical and emotional stress), and the positive aspect of caregiving (PAC) score (based on self-reported reward and satisfaction derived from caregiving). We used logistic regression with Generalized Estimation Equation (GEE) method to account for correlation between responses of same caregiver at baseline and follow-up. PROC GENMOD was used to estimate the model in SAS. **Results:** Preliminary results indicate that higher caregiving burden was associated with a lower probability of improvement in CGs self-reported health status (2%) while, higher the PAC score among caregivers was associated, with higher likelihood (4%) of improvement in health status for the intervention group than the control group. We did not find any significant impact of race/ethnicity on changes in CGs self-reported health. **Conclusions:** The findings support the conclusion that both negative and positive aspects of caregiving are important and influence overall change in CGs self-reported health status.

Keywords: Dementia caregiving, Self-reported health, Intervention
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Mega-Epidemiology and Genetics

PS1-24:

Modeling the Relationship Between Self-Reported Urinary Incontinence Data and Diagnoses in an Electronic Health Record

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Background/Aims: Self-reported data from large longitudinal mailed surveys provide data on disease symptoms in a population of interest. However, such studies do not give researchers an indication of whether patients have clinically significant symptoms. Access to electronic health record (EHR) data of a survey population provides diagnoses on subjects who have sought medical care. The General Longitudinal Overactive Bladder Evaluation (GLOBE) is a population-based study designed to collect longitudinal data on symptoms associated with urinary incontinence (UI). We used self-reported data from the GLOBE study to predict clinical UI based on ICD-9 diagnoses codes for all types of UI in the Problem List in the EHR. **Methods:** We mailed baseline surveys to a random sample of 8,077 (3,648 baseline responses) female primary care patients aged 40+ years from a population of more than 400,000 patients. The surveys were completed by patients between March and May of 2006 while the clinical data collected from the EHR dated between 9/2/2002 and 6/1/2007. Using data from these two sources we created a model to predict which patients had a UI diagnosis in the EHR (dependent variable). Independent variables included age, age2, and Charlson index (from the EHR), and UI severity (range of 0-9), urine loss behavioral adaptations, duration of urine loss symptoms, marital status, education, BMI, and parity (from the survey). **Results:** The mean age of participants was 59.04 (SD +/-13.13). The mean BMI and median parity were 28.51 (SD +/- 16.53) and 2.22 (SD +/- 1.41) respectively. Using a logistic