Purpose: The aim of this research was to estimate and compare the direct and indirect influence (mediated by respondents' education) of three indicators of CSES (childhood financial conditions, mothers' education, fathers' education) on: i) the EQ-5D; ii) self-rated health (SRH), iii) age-comparative self-rated health (ASRH), and; iv) subjective wellbeing, using data from TromsÃ Study, Norway.
Methods: The data was analyzed using Stata command Paramed. Log-linear regression was used for the health and life satisfaction outcomes to estimate the natural direct effects (NDE), natural indirect effects (NIE) and marginal total effects (MTE) as risk ratios (RR). Statistically significant interaction ($p<0.05$) was observed between the CSES exposures and gender, regressed on the health and wellbeing outcomes, therefore the analysis was conducted separately for men and women.
Results: childhood financial conditions was associated (NDE) with all health measures. Men had a higher risk of being unhealthy on the composite EQ-5D measure, and the anxiety/depression dimension , but women had a higher risk of being unhealthy on the dimensions self-care, usual activities, pain/discomfort, as well as on SRH. Childhood financial conditions had no statistically ($p>0.05$) significant NIE mediated by respondents' education, on any health measure. While almost all NDEs of parental education on health outcomes were not statistically significant ($p>0.05$), most of the NIEs of parental education were statistically significant ($p<0.05$).
Conclusions: Childhood financial conditions have a strong direct effect on later health and wellbeing, independent of respondents' education, while parental education has an indirect effect on later health mediated by respondents' education.

Health Outcomes

P33. Comparative Effectiveness of the CenteringPregnancy Program and Traditional Prenatal Care on Adverse Birth Outcomes in Medicaid Enrollees in a Rural Western Kentucky Clinic

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Purpose: This study examines the average treatment effects of the CenteringPregnancySmilesTM (CPS), versus the Traditional Prenatal Care (TPC) on birth outcomes and total hospital related charges from prenatal to 28 days post-delivery.
Methods: Data were abstracted from medical records, birth certificates, and hospital billing for 246 women who participated in the CPS program from 2006-2007, and 1082 women who participated in the TPC program (491 in 2005 and 591 from 2006-2007) in a rural western Kentucky clinic. Propensity score weighting was incorporated in the analyses of program effects on birth and hospital charge outcomes.
Results: Compared with participants of the CPS program, women who participated in the TPC group from 2006-2007 had shorter weeks of gestation (b = -0.69, 95% CI [-1.06, -0.33]), higher odds of cesarean section delivery (OR = 1.66, 95% CI [1.14, 2.43]), lower odds of being assessed for false labor (OR = 0.54, 95% CI [0.33, 0.89]), higher total hospital charges (mean ratio = 1.23, 95% CI [1.01, 1.51]), and higher hospital charges for newborns (mean ratio = 1.73, 95% CI [1.04, 2.88]). Women in the TPC group in 2005 also had shorter weeks of gestation (b = -0.38, 95% CI [-0.71, -0.05]), and higher delivery charges (mean ratio =1.12, 95% CI [1.02, 1.23]), compared with those in the CPS group.
Conclusions: There were significant treatment effects of CenteringPregnancySmilesTM on improved birth outcomes, and reduced hospital charges. The estimated total saving for 2006-2007 would be $1,338,024 if all women participated in CPS rather than in TPC.

P34. Resource Use Intensity in a Mature, Integrated Canadian Trauma System: A Multicenter Cohort Study

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Purpose: To estimate patient-level resource use related to acute trauma care in a universal health system and identify determinants of resource use intensity.
Methods: We conducted a retrospective cohort study based on patients admitted to any of the 57 adult trauma centers in a Canadian integrated trauma system (1999 to 2012, n=174,643). Data were abstracted from the Québec Trauma Registry and the Québec provincial costing database. Resource use was estimated with activity-based costs whereby units of resource use were multiplied by corresponding unit costs. Determinants of resource use intensity were identified using a hierarchical linear model.
Results: Mean patient age was 56 years and 55% were men. Mean costs were 10,277 2014 CAD (95% CI: 10,060-10,494) per admission. Mean length of stay was 12 days. Variations in resource use were observed over time, and according to trauma center designation level and insurance status ($p<0.001$). The majority of resources were used in the operating room (67% of total costs), followed by the intensive care unit (12%). The strongest determinants of resource use intensity were injury severity, body region of the most severe injury, and age; Cohen f2 = 6.8%, 6.3% and 1.7% respectively. Determinants of resource use intensity varied across trauma center designation level.
Conclusions: Year of admission, type of insurance, and availability of resources were predictors of acute trauma care resource use intensity in a universal-access health system. This study provides data that can be used to evaluate resource use intensity for acute trauma care and improve its efficiency.

P35. Depressive Symptoms, Heart Rate and Heart Rate Variability Among Police Officers

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Purpose: Both heart rate (HR) and heart rate variability (HRV) have been shown to be associated with all-cause and cardiovascular mortality in population studies and in clinically-based studies among participants with cardiovascular disease. The aim of this cross-sectional study was to examine associations of depressive symptoms with heart rate and heart rate variability among Buffalo, NY police officers.
Methods: Using standardized methods HR and high frequency (HF) HRV were measured in 361 police officers. Depressive symptoms were assessed using the Beck Depression Inventory II (BDI-II) questionnaire. Linear regression models were used to assess the association of depressive symptom scores with HR and HRV. Mean levels of HR and HF HRV were examined across quintiles of depressive symptom scores using ANOVA. Means were adjusted for age, gender, race/ethnicity, alcohol intake, smoking status, physical activity and beta-blocker medication.
Results: In our population mean age was 41 years old, 75% were male and 89% were Caucasian. Depressive symptom scores were not associated with HF HRV. However, HR increased across increasing quintiles of depressive symptom scores (61.5, 62.3, 63.4, 64.6, 66.6 respectively, p=0.003); after adjustment, the trend remained significant (p=0.010). Depressive Symptoms Scores were not significantly associated with HF HRV (p=0.183).
Conclusions: This study may be limited by its cross-sectional design and small sample size. Our findings revealed a positive and independent association between depressive symptoms and HR. Future studies could employ a prospective design and examine a larger population to determine whether depressive symptoms are associated with heart rate variability.

P36. Drug-Level Variation in Medication Adherence Among Adult Diabetics in Hawaii: Clinical and Methodological Implications

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Purpose: Medication adherence is important for optimal disease control. Adherence research has focused on patient characteristics, health behaviors, and factors indirectly related to drugs like regimen complexity, cost, diagnosis, and disease severity. This study sought to parse out variations in adherence directly attributable to drugs.
Methods: The patient population was diabetic adults enrolled with the largest insurer in Hawaii. Adherence by drug (portion of enrolled days covered by a filled antidiabetic, antihyperlipidemic or antihypertensive prescription) was available from 2008 to 2010. Drugs filled by <100 patients, and drug-classes with <2 drugs were excluded. A three-level hierarchical