

both, OR = 2.4 [2.2-2.6], 2.2 [1.8-2.6], 6.0 [4.5-8.3]. DISCUSSION/SIGNIFICANCE OF IMPACT: Census tract-based SES could provide invaluable information to health care providers when associated to the EHR. We found that median income, which is not collected in the EHR, was significantly associated with a higher burden of disease. Census tract SES could serve as a proxy for evaluating SDoH.

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Association between treatment of asymptomatic *Trichomonas vaginalis* infection and preterm delivery*

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OBJECTIVES/GOALS: *Trichomonas vaginalis* (TV) has a prevalence of 26% in Baltimore and is associated with preterm delivery (PTD). Yet screening and treatment of TV is not advised due to conflicting data on harms. Our goal is to investigate the association between asymptomatic TV treatment and PTD. METHODS/STUDY POPULATION: This is a retrospective cohort study of women who delivered a child at The Johns Hopkins Hospital between 7/1/16 – 11/19/19. Exclusion criteria included multiple gestation, stillborn, miscarriage, diabetes, hypertension/preeclampsia, HIV, and history of PTD. Chart review and ICD-10 diagnosis codes were used to collect data on demographics, STI test results, lab encounter diagnoses, STI treatment during pregnancy, and labor encounter diagnoses. Preliminary analysis for crude incidence of PTD in asymptomatic and symptomatic women treated for TV was performed using TriNetx, a global research network compiling all de-identified data within the Hopkins system. RESULTS/ANTICIPATED RESULTS: Three hundred and eighty women were tested for TV, 240 (63%) were asymptomatic and 140 (37%) women were symptomatic. Mean ages were 26 (SD:5) and 26 (SD:5) years, respectively. Black women comprised 87% of the asymptomatic cohort and 93% of the symptomatic cohort. Women of Hispanic ethnicity were represented by 4% of the asymptomatic cohort and 7% of the symptomatic cohort. Crude incidence of PTD was 4.1% among asymptomatic women and 7.1% among symptomatic women. Incidence ratio comparing asymptomatic PTD incidence to symptomatic PTD incidence was 0.58 with 95% CI (0.22, 1.56). DISCUSSION/SIGNIFICANCE OF IMPACT: Preliminary data from our study suggests there is no difference in PTD between asymptomatic and symptomatic women treated for TV. Future steps include multiple linear regression using a larger dataset. These preliminary data suggest TV should be considered for screening during pregnancy.

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Association of age at menopause with incident heart failure in the Southern Community Cohort Study

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OBJECTIVES/GOALS: Early age at menopause has been linked to increased risk of cardiovascular disease; however, there is limited evidence for a relationship between early menopause and heart failure

(HF). We examined whether early menopause is associated with incident HF among women in the southeastern United States. METHODS/STUDY POPULATION: The Southern Community Cohort Study enrolled ~86,000 low-income black and white adults from 2002 to 2009. Participants for this analysis were 11,948 women who were postmenopausal at enrollment, had no history of HF, and were on Medicaid or Medicare. HF events were ascertained using ICD-9 codes 428.x via linkage of the cohort with CMS Research Identifiable Files through December 31, 2010. Early menopause was defined as self-reported age at menopause less than 45 years. Hazard ratios (HRs) and 95% confidence intervals (CIs) were computed from multivariable Cox regression models, overall and by race, adjusting for demographic, lifestyle, and reproductive factors, including reason for menopause. RESULTS/ANTICIPATED RESULTS: At baseline, mean age was 58±9 years, and 65% of participants were black. Among women with early menopause, 76% (n = 4,836) had menopause due to hysterectomy or oophorectomy. In women with later menopause, 74% (n = 4,102) reported natural menopause. During a median follow-up of 5.0 years (range 3.1-6.7), 2,157 incident HF events occurred. Compared with women with later onset of menopause, those with early menopause had increased HF risk (HR: 1.27, 95% CI: 1.10–1.47). Risk of HF associated with early menopause was similar in white and black women (p-value for interaction: 0.13). DISCUSSION/SIGNIFICANCE OF IMPACT: In this largely low-income population, early menopause was associated with an increased risk of developing HF. Women with early menopause represent a potential target population for future interventions to decrease risk of HF and cardiovascular risk factors.

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Bimodal Visual-Olfactory Training for Post-Surgical or Post-Traumatic Olfactory Dysfunction (VOLT Trial)*

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OBJECTIVES/GOALS: 1) Assess the patient-reported, perceived change in olfactory function after bimodal visual-olfactory training (OT) 2) Assess change in olfactory function after bimodal visual-olfactory training with a smell identification test 3) Assess which scents are most important to people with olfactory dysfunction (OD) METHODS/STUDY POPULATION: The participants are adults with subjective or clinically diagnosed OD with post-surgical or traumatic etiologies within the last 5 years. At the first of two study visits, participants complete the University of Pennsylvania Smell Identification Test (UPSIT) and complete general health (SF-36) and olfactory-related quality-of-life questionnaires. From a list of 34 scents, participants chose the 4 scents most important to them and smelled the scents twice daily for 3 months. Olfactory testing and the quality-of-life questionnaires were repeated at the final visit. RESULTS/ANTICIPATED RESULTS: 10 participants have enrolled in the study. There was one screen fail and one withdrawal. Six participants are currently undergoing OT and two have completed the study. Seven participants have post-surgical etiology and three have post-traumatic etiology of their OD. Of the two participants who have completed the study, one had an UPSIT score improvement from 25 to 33 out of the 40 questions correct. The minimally clinically important difference on the UPSIT is 4. She reports improvement subjectively. The second participant had a UPSIT score change from 25 to 24 and reports ability to smell is neither better nor worse. DISCUSSION/SIGNIFICANCE OF IMPACT: Traumatic and post-