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Visual HIV Health Information and Knowledge Among Deaf/Hard of Hearing

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Purpose: Research has shown persons who are Deaf or Hard of Hearing (HH) have significantly less knowledge and a higher incidence rate of HIV than their hearing counterparts. No prior work has evaluated whether visual HIV information can improve HIV knowledge among persons who are Deaf or HH. The goal of this study was to examine whether persons who are Deaf or HH who receive visual HIV/AIDS information in addition to standard written information have greater knowledge than those who only receive standard written information.

Methods: Deaf or HH persons were recruited through community organizations. Qualtrics interface randomly assigned participants to either receive standard written HIV information or visual HIV information and standard written information. Both the visual and written piece contained the same information. HIV knowledge was assessed through 16 true/false questions. Descriptive statistics were assessed using Fisher’s exact test for categorical data and t-tests for continuous data. Our primary outcome, knowledge scores, was compared between groups using a t-test.

Results: The mean proportion of correct answers in the control group (n=5) was 0.850 (s.d. = 0.056) and was 0.882 (s.d. = 0.072) in the intervention group (n=5). The difference in knowledge between groups was not statistically significant (p = 0.446).

Conclusion: This pilot study found that individuals who received visual HIV information had higher knowledge than those who did not receive this information, although not statistically significant. Further research is needed in larger and more representative samples to examine whether visual HIV information can improve knowledge among persons who are Deaf or HH.

Health Care Access and Utilization Among Adults by Vision Impairment

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Purpose: This study aims to examine health care access and utilization among adults with and without vision impairment (VI).

Methods: We analyzed data for adults who participated in the 2018 Behavioral Risk Factor Surveillance System. VI was assessed with the question, “Are you blind or do you have serious difficulty seeing, even when wearing glasses?” Health care access and utilization questions included: health insurance coverage (Coverage); usual health care provider (Provider); and in the past year, routine check-up (Check-up), dental visit (Dental), or unmet healthcare need because of cost (Cost). If respondents reported additional disability types (i.e., mobility, cognition, independent living, hearing, or self-care), it was coded as “Yes, other disability.” Age-adjusted prevalence of health care access and utilization were estimated using SAS-callable SUDAAN to account for the complex survey design.

Results: Of 19,302 respondents, 39.3% (3.3% confidence interval (CI) = 5.1%-5.4%) reported VI. Compared to adults without VI, those who reported VI were older and current smokers (P<0.001). Respondents reporting VI had a higher percentage of other disability than those not reporting VI (68.2% vs. 23.2%). After age adjustment, compared to adults without VI, adults with VI had lower prevalence of Coverage (80.6%[95%CI = 78.9%-82.1%] vs. 87.6%[95%CI = 87.2%-87.9%]), Provider (71.0%[95%CI = 70.2%-73.5%] vs. 75.4%[95%CI = 75.4%-76.0%]), and Dental (52.9%[95%CI = 51.2%-54.7%] vs. 67.2%[95%CI = 66.9%-67.6%]), but higher prevalence of Cost (29.2%[95%CI = 27.6%-31.0%] vs. 12.6%[95%CI = 12.3%-12.8%]; no differences were found for Check-up (75.6%[95%CI = 73.9%-77.2%] vs. 75.2%[95%CI = 74.9%-75.5%]).

Conclusion: Disparities in health care access and utilization among adults with and without VI require more attention to understand barriers to improve access to health care services for people with VI.

Sociodemographic Disparities in the Treatment and Outcome of Pancreatic Cancer

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Purpose: To investigate whether socioeconomic status (SES) and race are associated with receipt of any treatment, time to treatment, and overall survival, separately, for pancreatic cancer patients across different facility types.

Methods: The National Cancer Database was queried for pancreatic cancer cases from 2004-2015. Multivariable logistic and Cox models were used to assess effects of insurance (private vs. public), education, income, included as separate variables, and race on the receipt of any treatment, time to treatment and survival after adjusting for age, sex, stage and facility.

Results: Among 223465 patients, 44.6%, 42.1% and 13.3% were treated at academic, community and integrated centers, respectively. The adjusted odds ratio (aOR) for receipt of any treatment of private insurance patients was 1.41 (95%CI = 1.37-1.46). The aOR for Black race to receive any treatment was 0.97 (95%CI = 0.94-1.00). Regarding time to treatment, Black patients received first treatment later (hazard ratio [HR] = 0.89; 0.88-0.90). The highest education quartile had slightly earlier treatment (HR: 1.09; 1.07-1.11). The HR for survival of private insurance patients was 0.84 (95%CI = 0.83-0.85). The HR for survival of Black race was 1.06 (95%CI, 1.04-1.07) when SES was not adjusted for. However, the association was not significant after adjustment (HR: 0.99; 0.97-1.00). Within integrated centers, the HR for survival of Black race was 0.95 (95%CI, 0.92-0.99) after adjustment.

Conclusion: In pancreatic cancer, higher SES was associated with better treatment and survival. After adjusting for SES, race did not appear to affect survival. Less racial disparity in outcomes was observed at integrated centers.

Flu Vaccination and Associated Factors among Chinese Immigrants in Canada

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Purpose: The objective of the current study is to examine the Flu vaccination rate and associated factors in Chinese immigrants in Canada.

Methods: A non-random sample cross-sectional study was conducted in April 2020 in Canada. Individuals with Chinese origin aged 16 or older living in Canada at time of the survey were invited to participate an online survey. Outcome variable was defined as receiving Flu vaccine in the past 12-months. Chi-square tests and logistic regression analysis were used.

Results: A total of 754 eligible respondents who answered more than 50% of the survey questions were included for the analysis. A large majority of the participants (n=494, 66.8%) were female, and 51.2% were 55 years of age or older. Overall, 31.2% of the study participants received Flu vaccine in the past twelve months and there was a significant difference between two genders with corresponding vaccination rates of 34.9% and 29.6% (P=0.209). Likewise, self-rated health, level of education, and employment status were not
significantly associated with Flu vaccination. However, as expected, older people (55-year +) were more likely to report receiving Flu vaccine than younger people with OR of 1.67 (1.19–2.37).

Conclusion: Comparing with other Canadian population, the Flu vaccination rate in Chinese immigrants was lower. Given the ongoing COVID-19 pandemic and coming Flu season in a few months, targeted efforts are needed to greatly increase the overall vaccination rate in this population.

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Stressful Life Events and Postpartum Depression in Women with Disabilities

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Purpose: Although numerous studies have found positive relationships between stressful life events and postpartum depression, limited research assessed these associations in women with disabilities. This study examines the effects of stressful life event on postpartum depression in women with disabilities.

Methods: Data from the 2012-2017 Massachusetts Pregnancy Risk Assessment Monitoring System (n = 5,765) were used in this study. Women were asked if they experienced life stressors (e.g., financial, traumatic, relational, emotional) during the twelve months prior to giving birth, while disability was measured based on reports of emotional and physical functioning. Descriptive statistics, bivariate and binary logistic regression analyses were conducted to estimate the effect of stressful life events on postpartum depression among women with and without disabilities.

Results: Findings show that 39.2% of women with disabilities had postpartum depression, which was significantly higher than 9.3% of women without disabilities. Stressful life events were reported in 87.8% of women with disabilities, compared to only 67.9% for women without disabilities. Women with disabilities experiencing six or more stressful life events were 5.03 (95% CI, 1.41–18.0) times more likely to develop postpartum depression, compared to those reporting no stressful life events. Women with disabilities who experienced traumatic life stressors had a greater likelihood for postpartum depression (OR 2.32, 95% CI 1.01-5.33) relative to those reporting no traumatic life stressors. Prevalence of three or more stressful life events and postpartum depression was greater among women with disabilities than women without disabilities.

Conclusion: Women with disabilities are at an amplified risk for stressful life events and postpartum depression, with certain stressful life events increasing the odds for postpartum depression among this population of mothers. Early prenatal screening for life stressors and depression, and early postnatal screening for postpartum depression in pregnant women with disabilities, coupled with timely referral for appropriate prenatal or postnatal care, is vital to the health of mothers with disabilities and their children.

Racial Disparities in Asthma Control During Pregnancy

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Purpose: Describe trajectories of asthma control among White (n=96) and Black (n=163) women with asthma in a prospective pregnancy cohort.

Methods: Latent class trajectories were generated across gestation for each of the following asthma control outcomes obtained through daily diaries: activity limitation, night wakening, inhaler use, and asthma symptoms. Poisson models with robust standard errors were used to examine the relative risk ratio and 95% confidence intervals (RR (95% CI)) of belonging to each outcome's trajectory groups by self-identified race (White or Black). Models were run unadjusted (Model 1) and adjusted for study site and age (Model 2), income, health insurance, education, marital status, and asthma medication regimen (Model 3).

Results: Figure 1 presents the latent class trajectories for each outcome as well as the proportion of Black and White women belonging to each trajectory group. Across all asthma control outcomes, Black women were more likely to belong to the highest trajectory (i.e. to exhibit good asthma control) and less likely to belong to the lowest trajectory (i.e. to exhibit good asthma control). However, the RR (95% CI) for Black versus White women belonging to the lowest trajectory was only statistically significant (p<0.05) for night wakening (Model 1: 0.55 (0.30, 0.99), Model 2: 0.43 (0.20, 0.94), Model 3: 0.65 (0.25, 1.66)).

Conclusions: Women who self-identify as Black are more likely to experience poor perinatal asthma control than White women. This association is attenuated with adjustment for socioeconomic and clinical factors, suggesting social factors are responsible for this disparity.

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Racial/Ethnic Differences in the Association Between Family History of Cancer and Smoking Status Among US Adults

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Purpose: Having a family history of cancer is associated with current or former smoking, however, there is a paucity of studies about racial/ethnic differences in the relation between cancer family history and smoking status. Our aim was to examine the association between family history of cancer and smoking status stratified by race/ethnicity.

Methods: Cross-sectional analyses using the Health Information National Trends Survey, 2019, were conducted. Multinomial logistic regression was used to examine the association between a cancer family history and smoking status, stratified by race/ethnicity. Those who smoked at least 100 cigarettes in their lifetime were ever smokers. Among these participants, those who continued to smoke every day, or some days were classified as current smokers while those who no longer smoked were classified as former smokers. Participants who did not smoke up to 100 cigarettes in their life were classified as never smokers.

Results: 75% of participants reported a family history of cancer while 64% of participants were non-smokers. Overall, those with a family history of cancer had 1.73 times (95%CI:1.14–2.62) higher odds of being current smokers and 1.81 times (95%CI:1.14–2.05) higher odds of being former smokers relative to non-smokers, compared to those without a family history of cancer. Among non-Hispanic whites, those with a family history of cancer were 2.15 times (95%CI:1.43–3.22) more likely to be current smokers and 1.89 times (95%CI:1.34–2.45) more likely to be former smokers relative to non-smokers when compared to those without a cancer family history. Among African Americans, a family history of cancer was associated with 2.21 times (95%CI:1.44–3.40) higher odds of current smoking and 1.89 times (95% CI:1.38–2.60) higher odds of former smoking relative to never smoking, compared to those without a family history of cancer. Hispanics with a family history were 2.28 times (95%CI:1.46–3.58) more likely to be current smokers and 1.92 times (95%CI:1.39–2.65) more likely to be former smokers.

Conclusion: There is a consistent association between having a cancer family history and both current and former conventional cigarette smoking across all races/ethnicities. Increasing awareness about harmful health behaviors complicate cancer risk, especially among those with a family history, may help curb some of these risky habits.