DCCPS FELLOWS SYMPOSIUM 2026

Abstracts and Biosketches for Poster Session

Title: *Extreme Weather Exposure and Physical Activity: Exploring the Mediating Influence of Self-Rated Health Status*

Imani Canton, PhD, MPH, Health Communication and Informatics Research Branch, BRP
Co-authors: Heather D'Angelo, PhD, MHS and Michelle Doose, PhD, MPH
Mentors: Michelle Doose, PhD, MPH, Health Communication and Informatics Research Branch, BRP; and Amy Davidoff, PhD, MS, Healthcare Assessment Research Branch, HDRP

Purpose: To examine whether health status potentially mediates the association between extreme weather (EW) exposure and physical activity (PA) among US adults. **Design:** Population-based, cross-sectional study. **Setting:** United States. **Sample:** Adults (18+) responding to the National Cancer Institute's Health Information National Trends Survey 7 (2024) with complete data on analytic variables (n = 4330, response rate 27.3%). **Measures:** Sociodemographic and medical-related characteristics, experiencing any EW (vs. none) over the past 12 months, health status (poor to excellent), and PA (min/week). **Analysis:** Weighted descriptive statistics were calculated. We conducted linear regression and mediation analysis to examine whether past-year EW exposure was associated with PA (min/week) and whether the association was mediated by health status. **Results:** US adults reported 120 min/week of PA, on average. Most (71.2% [95% CI 68.9% to 73.6%]) reported any EW exposure. Neither total nor natural direct effect of EW exposure on PA were significant (β = 0.002 [95% CI -0.060 to 0.065]; β = 0.019 [95% CI -0.043 to 0.081], respectively). However, the natural indirect effect of EW exposure mediated through health status was statistically significant and negative (β = -0.017 [95% CI -0.027 to -0.007]), indicating that EW exposure was associated with lower PA via health status **Conclusion:** The association between EW exposure and PA was consistent with an indirect pathway operating through health status. Clarifying these relationships may inform future public health surveillance and interventions to support PA for populations experiencing frequent EW events. Future longitudinal studies and surveillance efforts are needed to further elucidate these relationships.

Biosketch: Imani Canton, PhD, MPH, is a Cancer Prevention Fellow in the BRP Health Communication and Informatics Research Branch, where her overarching goal is to address racial disparities in cancer outcomes through reductions in obesity by examining neighborhood social, economic, and built environment factors that influence physical activity behaviors among long-term cancer survivors. Currently, she is leading a study examining the relationship between neighborhood socioeconomic status, built environment (i.e., walkability, food environment and transportation), and obesity-related cancer survival utilizing the SEER-Medicaid dataset. Before joining BRP, she earned her PhD in Kinesiology from the University of

Illinois Urbana-Champaign. During her PhD, her stream of research focused on the design of culturally tailored, community-based physical activity interventions that target African American women. As such, for her dissertation study, she designed an 8-week pretest posttest pilot community gardening intervention to examine the impact of community gardening on physical activity levels and psychological health among middle-aged African American women. Post-intervention, participants significantly increased their daily step count (Fitbit), there was a moderate positive effect on light physical activity minutes, and a small decrease in perceived stress. Last year she earned her MPH in Biostatics and Epidemiology from the Yale School of Public Health.

Title: Is Simpatía associated with healthcare experience quality, adherence and self-advocacy among Hispanic/Latine adults?

Yennifer Garzon, BS, Basic Biobehavioral and Psychological Science Branch, BRP
Co-authors: Sara A. Flores, PhD and Amanda M. Acevedo, PhD and Julian Martinez, PhD
Mentor: Amanda Acevedo, PhD, Basic Biobehavioral and Psychological Sciences Branch, BRP

Introduction: Healthcare experiences are critical in shaping how patients communicate with providers, participate in care decisions, and adhere to treatment recommendations. Patient self-advocacy is defined as the ability to communicate, negotiate, and assert their needs, preferences, and values within healthcare settings, allowing them to actively participate in decisions regarding their care. Negative healthcare experiences may undermine both patient self-advocacy and adherence by reducing trust in healthcare providers and discouraging future engagement with the healthcare system. These dynamics warrant attention among Hispanic/Latine populations, where specific cultural values emphasizing collectivism and social harmony may play a prominent role in how individuals perceive and respond to healthcare experiences **Objective:** To examine the associations between *simpatía*, healthcare experience quality and patient self-advocacy among Hispanic/Latine adults. **Methods**: A secondary analysis (n = 413) using survey data from a larger study of Hispanic/Latine adults. *Simpatía*, patient self-advocacy, and healthcare experience quality were evaluated using validated measures. Planned analyses were pre-registered on the Open Science Framework and included descriptive statistics, correlation analyses, and multivariable linear regression models adjusting for age, gender, and income. We hypothesized that endorsement of *simpatía* would be positively associated with healthcare experience quality ratings. However, in the context of a negative healthcare experience, *simpatía* would be negatively associated with self-advocacy. **Results:** We found that *simpatía* was not associated with healthcare experience quality ratings. Among participants reporting negative healthcare experiences, higher levels of *simpatía* were associated with higher levels of self-advocacy ($p < .001$*)* after adjusting for covariates. **Conclusion:** Examining the role of *simpatía had provided* new insights into how this cultural

value might influence patient self-advocacy among Hispanic/Latine adults. These findings suggest that, even in the presence of a negative healthcare experience, patients who endorse *simpatía* might be more likely to self-advocate by fostering harmonious patient-provider interaction.

Biosketch: Yennifer Garzon, BS, is a Summer Intern in the Behavioral Research Program at the National Cancer Institute (NCI), Division of Cancer Control and Population Sciences (DCCPS). Ms. Garzon is using R to clean and analyze survey data, perform psychometric and statistical analyses, and assist with the interpretation of findings. Before joining NCI, she worked as a Lead Laboratory Assistant at AdventHealth, where she helped establish laboratory workflows for a new hospital while gaining extensive clinical laboratory experience in patient care and diagnostics. Ms. Garzon earned her Bachelor of Science in Biomedical Sciences from AdventHealth University and is currently applying to medical school, with plans to begin in fall 2027. Her research interests include cancer health disparities, behavioral oncology, patient-provider communication, and culturally responsive interventions to improve health outcomes among underserved populations.

Title: *Patient-Clinician Communication About Online Health Information Seeking: A Mixed-Methods Scoping Review*

Alyssa Harrell, MA, (uh-LISS-uh HAIR-uhl)**,** Health Communication and Informatics Research Branch, BRP
Co-authors: Nicole Senft Everson, PhD and Anna Gaysynsky, MPH and Heather D'Angelo, PhD, MHS and Katie Heley, PhD, MPH and Gisela Butera, MLIS and Robin Vanderpool, DrPH
Mentors: Nicole Senft Everson, PhD, Health Communication and Informatics Research Branch, BRP; and Irina Iles, PhD, MPH, Health Communication and Informatics Research Branch, BRP

Background: Online health information (OHI) seeking is common and influences patients' understanding of health issues and treatments. Patient-clinician discussions about OHI may affect patient engagement, satisfaction, and outcomes. This scoping review summarized prior research on the occurrence and quality of these discussions. **Methods:** A total of 7,611 articles published since 2012 were screened using the PRISMA-ScR framework and 69 studies were included (37 quantitative, 30 qualitative, 2 mixed methods). Quantitative studies were coded for type and source of OHI, population type, and the occurrence, quality, predictors, and outcomes of patient-clinician communication about OHI. Thematic analysis was applied to qualitative studies, with resulting themes used to contextualize quantitative findings. **Results:** About half of quantitative studies examined general health information seeking, whereas qualitative studies tended to focus on specific health topics. Among quantitative studies, 25 examined the occurrence of OHI discussions; a median of 47.95% of respondents reported discussing OHI with clinicians (IQR: 35.0%-59.9%). Qualitative data suggest that patients discussed OHI to verify information, seek reassurance, and advocate for preferred treatments. Lack of time and concerns about clinicians' reactions emerged as barriers to these discussions, and patients often introduced OHI strategically to avoid negative reactions. Across thirteen quantitative studies, perceptions of clinicians' openness and supportiveness when discussing OHI ranged from 41% to 83%. Effects of discussing OHI on

patient trust and satisfaction varied, with qualitative insights suggesting dismissive clinician responses reduced patient satisfaction and engagement. **Conclusion:** Quantitative findings showed that OHI discussions are common and often go well, though effects varied. Qualitative findings highlighted patients' motivations and strategies for navigating these conversations and explained their varied impact on patient-clinician trust and relationships. Research among populations experiencing digital or health disparities, along with qualitative assessments of barriers to discussing OHI, could improve patient-clinician communication.

Biosketch: Alyssa Harrell is a Ph.D. student and research assistant in the Department of Communication at George Mason University. She earned her B.A. in advertising and public relations from the University of Central Florida and her M.A. in mass communications from the University of South Florida. Before beginning her doctoral studies, Alyssa worked as a communication research fellow in the Behavioral Research Program at NCI. Her research focuses on health communication, patient-clinician communication, and health education and promotion. She is particularly interested in developing evidence-based communication strategies that influence health behaviors and improve patient-clinician interactions.

Title: *Prostate cancer health differences: forecasting incidence and prevalence using age-period-cohort analysis*

Douglas A. Monroe, PhD, MPH, Tobacco Control Research Branch, BRP
Co-authors: Philip S. Rosenberg, CCR, Rachael Stolzenberg-Solomon, Hormuzd Katki, Ana F. Best, DCEG

Background: While incidence and prevalence of prostate cancer have decreased in recent decades, there are notable differences between non-Hispanic White (NHW), and non-Hispanic Black (NHB) men. We applied age-period-cohort forecasting to address the question: can disparities between NHW and NHB men be expected to continue in the future? **Methods:** Prostate cancer incidence and survival data were obtained from SEER-12 (1992-2021; ages 40-84). We applied age-period-cohort and JoinPoint modelling to estimate incidence and 95% CIs by single year of age and period. The models forecast incidence to year 2035 using observed birth cohort and period trends measured by JoinPoint and curvature. We modelled survival using JoinPoint for the relative hazard of all-cause death by age and year at diagnosis. These estimates are used to forecast the prevalence of prostate cancer survivors. **Results:** The estimated age-incidence rate of prostate cancer was higher for NHB than NHW men; longitudinally, NHW men born in 1959 have a maximum risk of 590/100,000 (age 69), while NHB men born in the same year have a maximum risk of 1000/100,000 (age 68). JoinPoint models fit to cohort rate-ratios estimate a risk decrease of 1.45% (95% CI: 1.37-1.54) per birth year for NHW men born in or after 1931 while the corresponding decrease for NHB men starting in 1940 was 0.75%/year (0.53-0.96). NHW and NHB men are forecasted to have stable or decreasing incidence for all age groups, from 2021 to 2035. Overall survival for men diagnosed

at age 62 in year 2006 was higher for NHW than NHB men at 5, 10, and 15 years. NHW and NHB men are forecasted to have stable or decreasing prevalence for all age groups, from 2021 to 2035 although NHB rates are much higher overall than for NHW. **Conclusion:** In our forecast models, absolute rates of prostate cancer will remain high in the future. Decreases in prevalence correspond to decreases in incidence and differences between NHW and NHB populations are expected to persist. Our analysis may inform or complement research on prostate cancer screening and survivorship.

Biosketch: Douglas Monroe, Ph.D., M.P.H., joined DCEG as a postdoctoral fellow in the Metabolic Epidemiology Branch (MEB) under the mentorship of Rachael Stolzenberg-Solomon, Ph.D., M.P.H., R.D. He is co-mentored by Dr. Carolyn Reyes-Guzman in the Tobacco Control Research Branch, Behavioral Research Program in the Division of Cancer Control and Population Sciences. Dr. Monroe studies cancer incident trends broadly, as well as potential emerging risk factors for certain cancers, and changes in risk exposures over time. Additionally, his research aims to help improve tobacco cessation interventions.

Title: *Occupational exposure to asbestos and risk of bladder cancer*
Sarina D. Murray, PhD, OEEB-DCEG, TCRB-BRP-DCCPS
Co-authors: Melissa C. Friesen, Dalsu Baris, Shuai Xie, Alison Johnson, Margaret R. Karagas, Debra T. Silverman, and Stella Koutros
Mentors: Stella Koutros, PhD, MPH, OEEB-DCEG; and Neal Freedman, PhD, MPH, TCRB-BRP-DCCPS

Background: Bladder cancer is the 9th most common cancer worldwide, occurring mainly in men over 65 and in white populations. About half of the cases are attributable to tobacco smoking, with additional risk from occupational chemical exposures. Evidence on asbestos-related bladder cancer risk remains inconclusive, largely due to limited individual-level data and insufficient adjustment for smoking and other high-risk occupations. **Objectives**: We assessed occupational asbestos exposure and bladder cancer risk among 1182 cases and 1408 controls in the New England Bladder Cancer Study, adjusting for smoking and other occupational exposures. **Methods**: Exposure was estimated from lifetime job histories using a job-exposure matrix. Participants were classified as ever exposed if they held any job with ≥25% or ≥50% exposure probability. Cumulative exposure was calculated as the sum of intensity of exposure (1–5–25 scale) multiplied by job duration, with jobs below the probability threshold assigned zero. Smoking and high-risk occupation-adjusted OR and 95% CIs were estimated using logistic regression models. **Results:** Ever exposure to ≥25% chrysotile asbestos (270 cases (22.8%) and 241 controls (17.1%) was associated with increased bladder cancer risk (OR = 2.10, 95% CI: 1.56–2.82). Cumulative exposure showed a significant exposure–response trend across quartiles ($OR_{Q1vsUnexposed}$ = 1.96, 95% CI: 1.27-3.04; $OR_{Q2vsUnexposed}$ = 1.93, 95% CI: 1.29-3.07;

$OR_{Q3vsUnexposed}$ = 2.02, 95% CI: 1.31-3.12; and $OR_{Q4vsUnexposed}$ = 2.4, 95% CI: 1.58-3.65, p-trend=0.0001). Amphibole asbestos metrics were highly correlated with chrysotile asbestos, as all amphibole-exposed participants were also exposed to chrysotile asbestos. Adjusting for other bladder cancer–related occupational exposures (metalworking fluids, diesel exhaust, solvents) did not materially alter risk estimates. **Conclusion/ Impact**: Although evidence remains limited, our findings suggest an independent exposure–response relationship between asbestos and bladder cancer, improving understanding of its etiology.

Biosketch: Sarina D. Murray is a Cancer Prevention Fellow (CPFP) with the Occupational and Environmental Epidemiology Branch in the Division of Cancer Epidemiology and Genetics (DCEG) and the Tobacco Control Research Branch in the Behavioral Research Program, Division of Cancer Control and Population Sciences (DCCPS), at the National Cancer Institute. Her research focuses on identifying risk factors for bladder cancer, including genetic susceptibility markers associated with clinically relevant bladder cancer subtypes and occupational exposures. She also investigates lung cancer incidence among people who have never smoked and examines small area estimates of smoking prevalence to inform tobacco control research. Before joining the CPFP, Dr. Murray earned her Ph.D. in Biomedical Science (Cancer Biology) from the University of Iowa, where she used forward genetic screens to identify mechanisms of drug resistance in uveal melanoma. She is currently pursuing a Master of Public Health in Epidemiology at the Harvard T.H. Chan School of Public Health.

Title: *Analysis of Trust in Cancer Information Sources and Awareness of Alcohol as a Cancer Risk Factor: A Cross-Sectional Study Using HINTS 7*

Rajiv T. Natesan (rah-JEEV NUH-teh-sun)**,** Health Behaviors Research Branch, BRP
Mentors: Frank M. Perna, EdD, PhD, Health Behaviors Research Branch, BRP

Overview: Alcohol consumption is an established modifiable risk factor for several cancer types, yet much of the United States public remains unaware of this link. A key determinant of cancer knowledge is trust in health information from various sources. This study aims to use national data to determine the association between the level of social trust in health information sources and awareness of alcohol as a carcinogen among US adults. **Methods:** The data originated from the Health Information National Trends Survey Cycle 7 (HINTS 7, 2024) which is a nationally representative survey of non-institutionalized U.S. adults (n = 7,278). The outcome variable, awareness of alcohol as a cancer risk factor, was derived from the Alcohol_CancerRisk item and was re-coded to reflect being “Aware,” “Don’t know,” or “Not Aware.” The predictor variable, trust in cancer information, was assessed across seven distinct sources: doctors, scientists, charities, religious organizations, government, the health care system, and family. Responses to these items were recoded into three categories to reflect level of trust: “A Lot,” “Some,” and "None.” Overall, awareness of alcohol as a cancer risk factor

among US adults was low (25.3-45.5%). Using the R statistical resource and incorporating replicates weights, multinomial logistic regression estimated the odds of trust in a particular resource being associated with awareness of alcohol as a cancer risk factor and the percentage of the population within each cell. Next, analyses were adjusted for education, age, and political stance. **Results:** Compared to respondents reporting high trust (reference group), respondents reporting "Some" trust in government (OR 0.76) or scientists (OR 0.67) had lower awareness of alcohol as a risk factor. In contrast, respondents with "Some" trust in family were more aware of alcohol as a cancer risk factor (OR 1.39). However, after adjustment only the "Some" trust in scientists (OR 0.68) group remained significant (p = <0.001). **Conclusion:** Overall awareness of alcohol as a cancer risk is low, and trust in various cancer information sources was generally not associated with awareness of alcohol risk after adjusting for demographic factors.

Biosketch: Rajiv Natesan is an NCI Summer Intern in the BRP Health Behavior Research Branch, where he assists with the OPTICS Alcohol Project and is doing an independent HINTS 7 Data analysis on alcohol awareness as a carcinogen. Prior to joining HBRB this summer, he was a student at the University of California, Irvine and involved in labs such as the Morality, Emotion, and Social Hierarchy Lab, the Social Inequality Lab, and the Learning and Decision Neuroscience Lab. The work in these labs ranged from social psychology in public data collection to coding of behavioral tests for participants. Following this summer, Mr. Natesan will return to UCI and graduate with a psychology (B.S.) degree and statistics minor with the goal of attending a clinical psychology PhD program to do research relating to mental health.

Title: *Examining Risk of Cognitive Decline Across Cancer Populations in the SEER-MHOS Data Resource*

Norah Nguyen, Outcomes Research Branch, HDRP

Mentor: Roxanane Jensen, PhD, HDRP

Background: Cognitive impairment is frequently observed in people diagnosed with cancer. The proportion of people who exhibit cognitive impairment following a cancer diagnosis is 30%, but during treatment, this proportion surges to 75% [1]. Assessing new cognitive decline is difficult; many studies rely on assessments captured at diagnosis, which may mischaracterize pre-cancer cognitive function. Consequently, understanding how cognitive decline differs across cancer populations is a major challenge since few studies capture a pre-diagnosis baseline. **Goal:** Identify which populations exhibit the highest risk of pre- to post-diagnosis perceived cognitive decline using the Surveillance, Epidemiology, and End Results registry linked to the Medicare Health Outcomes Survey (SEER-MHOS) data resource. **Methods:** Using the SEER-MHOS linked data resource, we identified Medicare beneficiaries (aged ≥65) who completed an MHOS survey before and after their cancer diagnosis. We measured perceived cognitive function using a self-reported dichotomous item: "Do you experience serious difficulty concentrating, remembering,

or making decisions?" We conducted logistic regression models among those with good cognitive function at baseline to assess the likelihood of developing perceived cognitive decline, adjusting for clinical and patient characteristics. **Results:** Of the 3,732 beneficiaries evaluated, 7.69% reported perceived cognitive decline. In multivariable logistic regression, chemotherapy treatment was significantly associated with an increased likelihood of perceived cognitive decline (OR=1.40, 95% CI: 1.05-1.88). Perceived cognitive decline was also significantly associated with older age (≥85 vs. 65-74: OR=2.81, 95% CI: 1.94-4.06), lower educational attainment (Less than high school vs. At least some college: OR=3.17, 95% CI: 2.26-4.45), and non-White race/ethnicity, specifically among NH API beneficiaries (vs. NHW: OR=1.75, 95% CI: 1.09-2.79). **Discussion:** Cognitive decline can negatively affect daily functioning. Consequently, understanding predictors of this change will foster a more comprehensive oncological care plan that preserves health-related quality of life outcomes. These findings provide a pre- to post-diagnosis trajectory that supports high-risk cancer survivors.

Biosketch: Norah Nguyen is a rising sophomore at Stanford University studying Human Biology. This summer, she joins the HDRP Outcomes Research Branch as a research fellow and focuses on examining the cognitive trajectories of different cancer populations. Her broader interests include understanding the role of socioeconomic disparities in healthcare access and improving equitable health outcomes for underserved regions.

Literature Cited:

1. Janelsins, M. C., Kesler, S. R., Ahles, T. A., & Morrow, G. R. (2014). Prevalence, mechanisms, and management of cancer-related cognitive impairment. International Review of Psychiatry, 26(1), 102–113. https://doi.org/10.3109/09540261.2013.864260

Title: *Assessing the prevalence, covariance, and predictors of uncertain responding about four health-related beliefs.*

Divya Parmar, MS, Health Communication and Informatics Research Branch, BRP
Co-authors: Emma Jesch, PhD, MPH and Irina Iles, PhD, MPH
Mentor: Emma Jesch, PhD, MPH, Cancer Prevention Fellow, Health Communication and Informatics Research Branch, BRP

Background: Despite significant health risks associated with alcohol, cannabis, hepatitis B virus (HBV), and hepatitis C virus (HCV), widespread awareness of these risks is limited. We examine "don't know" (DK) responding across four health beliefs: the alcohol-cancer link, the general health harms of cannabis, and the HBV- and HCV-cancer links. We examine (1) the prevalence of DK responding across each belief, (2) whether DK responses tend to cluster within individuals, and (3) the correlates of DK responding, including sociodemographic factors (e.g., age, education) and other health beliefs and abilities (e.g., cancer fatalism, numeracy). **Methods**: We

analyzed data from HINTS 7, a nationally representative cross-sectional survey of U.S. adults (N=7,278) conducted in 2024. Awareness about the alcohol-cancer link, the general health harms of cannabis, the HBV-cancer link, and the HCV-cancer link were measured using Likert-type scales and dichotomized prior to analysis, with 1=DK responding and 0=all other responses. We used chi-square tests to assess the variability of DK responses within individuals and separate, weighted multivariable logistic models to assess DK associations with sociodemographic and health-relevant characteristics. **Results**: DK responding was prevalent, particularly for the cancer-related items: 73% for HCV-cancer risk, 71% for HBV-cancer risk, 49% for alcohol-cancer risk, and 15% for the general health harms of cannabis. DK responding clustered across some, but not all, health beliefs, with significant correlations between DK responses to the alcohol-cancer item and all other health beliefs, and between DK responses to the HBV- and HCV-cancer items. Selected health beliefs and abilities were significantly associated with DK responding, but effects were inconsistent across beliefs. **Conclusions**: DK responding is common across multiple health beliefs and associated with health beliefs or abilities beyond sociodemographics. These factors could be targeted in interventions to reduce DK responding.

Biosketch: Divya Parmar, MS, is a Summer Intern in the BRP Health Communication and Informatics Research Branch, where she assesses the uncertainty or "don't know" responding across survey items that assess the alcohol-cancer link, the general health harms of cannabis, and the HBV- and HCV-cancer links. Ms. Parmar's research interests include the intersection of cancer cases and infectious disease. Before joining BRP, Ms. Parmar completed an MS in Epidemiology at Johns Hopkins University (JHU) Bloomberg School of Public Health. During her time at JHU, Ms. Parmar contributed to several projects for the Ending the HIV Epidemic initiative supported by the Program for Implementation and Equity Research (PIER) at the Center for Public Health and Human Rights. Prior to pursuing her master's degree, Divya obtained a BS in Public Health from the University of Georgia.

Title: *Reliance on Generative AI and Large Language Models in Clinical Settings*
Shiv Patel (SHIV puh-TELL)**,** Outcomes Research Branch, HDRP
Mentor: Roxanne Jensen, PhD, Outcomes Research Branch, HDRP

Overview: Using a structured scoping review, this project examines individual-level and technology design factors that shape clinician reliance on generative artificial intelligence (AI) and large language model (LLM)-based clinical decision support tools at the point of care.
Background: As artificial intelligence (AI)-enabled clinical decision support becomes embedded in routine care workflows, a critical challenge has emerged: how clinicians calibrate their trust in AI recommendations. Clinicians risk over-relying on algorithmic outputs even when incorrect

(automation bias) or dismissing accurate guidance (algorithm aversion). As the literature shifts from traditional rule-based tools toward generative AI and LLM-based systems, the individual-level and technology attributes that govern clinical reliance remain poorly characterized. This study aims to identify current AI tool designs at the point of care and characterize clinician reliance. **Methods:** We conducted a scoping review, searching PubMed using a structured query across three conceptual blocks: AI and technology terms (including large language models, generative AI, and explainable AI), clinician population terms, and reliance and workflow terms (including automation bias, overreliance, sycophancy, clinical reliance, and cognitive offloading). We restricted results to 2026, English-language empirical studies. Of the records retrieved (n=486), 9.9% (n=48) were retained for full-text review, yielding 35 studies currently undergoing data extraction in Covidence. **Preliminary Results:** Data extraction uses a structured framework capturing clinician-level factors (expertise, attitudes, and beliefs), technology design factors (explainability, output type, and interface design), and reliance outcome direction. A subgroup analysis in oncology settings is planned. Preliminary findings suggest automation bias and explainability are the most studied constructs, while clinical reliance as a defined outcome remains underexamined. Results will map the evidence base and identify priority areas for future research.

Biosketch: Shiv Patel is a research fellow in the Outcomes Research Branch, Healthcare Delivery Research Program, DCCPS, where he studies clinician reliance on generative AI and large language model (LLM)-based clinical decision support across oncology workflows, mentored by Dr. Roxanne Jensen. He is a rising junior at Florida State University pursuing a B.S. in Physiology. Before joining DCCPS, Mr. Patel was a research assistant in the Routman Lab (Department of Radiation Oncology) at Mayo Clinic where he validated an LLM-based toxicity-staging tool for head-and-neck cancer survivors and applied large language models to automate CTCAE toxicity grading in a prostate cancer clinical trial. He also worked in the Kao Lab (Department of Radiation Oncology) at the University of Pennsylvania, where he characterized regulatory trends among FDA-approved AI/ML-enabled medical devices.

Title: *Characterizing funded EGRP cohorts and investigation of their contribution to guidance on hormone replacement therapy (HRT) use*

Pravisha Ramesh, Genomic Epidemiology Branch, EGRP
Mentors/Co-authors: Danielle Carrick, PhD, MHS, Genomic Epidemiology Branch, and Somdat Mahabir, PhD, MPH, Environmental Epidemiology Branch, EGRP

Background: Cancer epidemiology cohorts (CECs) are large-scale observational studies that follow individuals over time to examine cancer risk, survivorship, other outcomes, and have contributed to cancer-related guidelines. Since 1997, EGRP has funded over 90 CECs that

address a wide range of scientific questions across the cancer control continuum, contributing meaningfully to public health and clinical care. The goal of this project is to characterize actively funded CECs and identify how the long-standing cohorts helped shape guidelines pertaining to postmenopausal hormone replacement therapy (HRT) and breast cancer risk. **Methods:** We first identified 55 currently active or recently closed cohort grants funded by EGRP. Data were extracted from NIH RePORTER, the Cancer Epidemiology Descriptive Cohort Database, EGRP resources, and cohort websites. Cohort characteristics, including study population, biospecimens, and data-sharing resources were summarized. CEC impact on informing the guidelines was assessed using Altmetric, a platform that links scientific publications to clinical guidelines. As a case study of CEC impact, we examined clinical guidelines pertaining to postmenopausal HRT and breast cancer risk. **Results:** Actively funded EGRP supported CECs represent a diverse portfolio, varying in geographic distribution, enrollment size, biospecimen collection, and availability of data-sharing resources. Among 249 breast cancer-related cohort publications linked to clinical guidelines,10 evaluated the association between postmenopausal HRT use and breast cancer risk. Findings from those publications have contributed important data related to HRT use and breast cancer risk and clinical guidelines related to HRT. **Conclusion**: EGRP cohorts vary in population, data, and biospecimen resources, with some influencing HRT use and breast cancer guidelines. This effort represents early preliminary research; further analysis is underway to measure their impact on HRT use.

Biosketch: Pravisha Ramesh is a Cancer Research Training Award (CRTA) fellow in the Epidemiology & Genomic Research Program where she is contributing to projects characterizing and evaluating the impact of NCI-EGRP supported Cancer Epidemiology Cohorts on clinical guidelines. Ms. Ramesh is currently a second-year medical student at the Virginia Commonwealth University School of Medicine with interests in cancer epidemiology, women's health, and pediatrics. Ms. Ramesh's prior research experience includes conducting basic science research in the Teves laboratory at VCU, where she investigated the anti-fibrotic effects of lithium chloride. In addition to her research experience, Ms. Ramesh previously worked at a pediatric ophthalmology and women's health clinic where she gained experience in clinical documentation and patient care.

Title: *Associations between Social Isolation, Chronic Pain, and Tobacco Use among U.S. Adults: Results from the Health Information National Trends Survey, 2024*
Alissa Rams, MPH, Tobacco Control Research Branch, BRP
Co-authors: Catherine Wilsnack, PhD, LMSW and Annette Kaufman, PhD, MPH
Mentor: Annette Kaufman, PhD, MPH, Tobacco Control Research Branch, BRP

Background: Social isolation (perceived disconnection from others) is a growing public health concern. Social isolation has been associated with an increased prevalence of chronic pain (pain

lasting ≥3 months). Social isolation and chronic pain have been individually associated with cigarette smoking, however no studies to date have examined the associations between social isolation, chronic pain, and tobacco use together. **Methods:** Data from the seventh cycle of the Health Information National Trends Survey (HINTS 7) were analyzed (n=7,278). We conducted weighted logistic regression to assess associations between social isolation, chronic pain, and smoking status, as well as with non-cigarette tobacco products. Unweighted indirect effects were also calculated. All analyses controlled for age, sex, race/ethnicity, education, health insurance status, presence of other chronic conditions, and psychological distress. **Results:** Social isolation was significantly associated with chronic pain (aOR = 1.03, 95% CI = 1.02– 1.05) and former smoking (aOR = 1.02, 95% CI = 1.01 – 1.03), but not current smoking, compared to no history of smoking. Chronic pain was significantly associated with both former (aOR = 1.57, 95% CI = 1.18 – 2.09) and current smoking (aOR = 2.08, 95% CI = 1.32 – 3.29). Use of non-cigarette tobacco products followed the same pattern; social isolation was associated with former (aOR = 1.01, 95% CI = 1.00 – 1.03) but not current use, while chronic pain was associated with former (aOR = 1.57, 95% CI = 1.22 – 2.02) and current use (aOR = 1.60, 95% CI = 1.01 – 2.53). In unweighted analyses, social isolation did not have a significant indirect effect on current smoking or other tobacco product use. **Discussion:** Results highlight the complex associations between social isolation, chronic pain, and tobacco use. A better understanding of these associations can be used to develop interventions for improving both chronic pain and tobacco use outcomes.

Biosketch: Alissa Rams, MPH, is a Summer Intern in the BRP Tobacco Control Research Branch, where she primarily works on supporting research related to tobacco cessation among people living with HIV. She is currently a PhD candidate in Applied Social Psychology at George Washington University. Her work there focuses on multimorbidity, specifically among people living with HIV and chronic pain, and chronic illness-related stigma. She previously received her Master of Public Health in health behavior from the University of North Carolina Gillings School of Global Public Health. She has also worked as a Research Scientist at Modus Outcomes conducting qualitative research to develop and validate patient-reported outcomes measures.

Title: *Preguntas Sobre Cáncer (Questions About Cancer): Analysis of Spanish Inquiries to the National Cancer Institute's Cancer Information Service*

Eduardo J. Santiago-Rodríguez, PhD, MPH, Health Communication and Informatics Research Branch, BRP

Mentor: Michelle Doose, PhD, MPH, Health Communication and Informatics Research Branch, BRP

Background: Spanish is the second most commonly spoken language in the United States (US). The majority of Spanish speakers in the US identify as Hispanic/Latino individuals, a population for whom cancer is the leading cause of death. **Methods:** This descriptive study examined

cancer information-seeking patterns among Spanish-speaking users of the National Cancer Institute's Cancer Information Service (CIS), a free and publicly available cancer information resource. **Results:** Between January 2019 and December 2025, the CIS received 19,280 Spanish-language inquiries from caregivers (33.4%), members of the general public (28.3%), tobacco users (19.7%), and cancer survivors (18.7%). Overall, access channel varied by client type, however, LiveHelp instant messaging was the most frequently used channel, followed by telephone, email, and social media. Spanish-language users' inquiries focused primarily on cancer staging and treatment, particularly among cancer survivors and caregivers. Members of the general public were more likely to seek general information unrelated to a specific phase of the cancer continuum, whereas tobacco users most often asked about cessation or counseling. The most frequently discussed cancer sites were breast, prostate, colorectal, cervical, and lung, with breast cancer ranking highest across all client types. Over 1,000 inquiries were related to COVID-19, most of them from Spanish-speaking cancer survivors. **Conclusion:** These findings provide insight into health information-seeking patterns to the CIS among Spanish-speaking individuals over the past seven years, underscoring the importance of maintaining a trusted source of timely and high-quality cancer information that may help improve cancer-related outcomes in this growing population.

Biosketch: Eduardo J. Santiago-Rodríguez, PhD, MPH, is a Cancer Prevention Fellow in the Behavioral Research Program, Health Communication and Informatics Research Branch at the National Cancer Institute. His work primarily focuses on studying factors that impact cancer prevention and the delivery of cancer care. He is also interested in evaluating interventions aimed at improving cancer-related outcomes. Eduardo completed a PhD in Epidemiology and Translational Science at the University of California, San Francisco, and obtained a BS in Human Biology and an MPH in Epidemiology from the University of Puerto Rico.

Title: *Hysterectomy-Adjusted, Bias-Corrected Uterine Cancer Rates, 2005-2023*
Kathryn Shea [Shay]**, MS,** Statistical Research and Applications Branch, SRP;
Co-authors: Mandi Yu, PhD and Anne-Michelle Noone, PhD
Mentor: Mandi Yu, PhD**,** Statistical Research and Applications Branch, SRP

Abstract: Uterine cancer is among the most common malignancies in women and trends show increases in rates over the last two decades. People who have undergone a hysterectomy procedure are no longer at risk of developing uterine cancer. Hysterectomy and uterine cancer demonstrate different rates in race and age groups with older and black women experiencing the highest rates of both. Currently, the SEER program does not routinely adjust for hysterectomy when producing rate estimates, so uterine cancer rates are underestimated. After adjusting the at-risk population to account for hysterectomy, estimates are subject to survey sampling error and may be overestimated.

Using data from the Surveillance, Epidemiology, and End Results (SEER) and the Behavioral Risk Factor Surveillance System (BRFSS), hysterectomy-adjusted, bias-corrected uterine cancer rate estimates are produced in 3-year intervals for years 2005-2023 excluding 2020. Joinpoint analysis is used to describe age-standardized trends. Case definitions include persons with female sex aged 20 years and older in the SEER 21 registry diagnosed with primary site "Corpus Uteri" or "Uterus, NOS". Population rate and standard error estimates are produced using the bias-corrected rate approach published by Jiang et. al. Race categorization using OMB 1977 bridged-race definition and race-alone definition are used for subgroup analysis and to compare the impact of race definition on hysterectomy-adjusted, bias-corrected rate estimates. Additional subgroup analyses are conducted by age, stage, and histology to further inform public health policy.

Biosketch: Kathryn (Katy) Shea, MS, is a summer fellow in the NCI Surveillance Research Program (SRP)'s Statistical Research and Applications Branch (SRAB). She is a doctoral candidate in Epidemiology at the University of California Davis. Her dissertation research focuses on developing hierarchical latent variable models to improve case count estimates inspired by reporting bias in COVID-19 surveillance data. She holds a master's degree in biostatistics from the University of California Davis and a bachelor's degree in microbiology from the University of Massachusetts Amherst. This summer, Katy is working with Mandi Yu. They are using Surveillance, Epidemiology, and End Results (SEER) and Behavioral Risk Factor Surveillance System (BRFSS) data to produce bias-corrected, hysterectomy-adjusted uterine cancer rates. Additionally, they are studying the impact of race categorization standards on hysterectomy-adjusted, bias-corrected rate estimates.

Title: *The relationship between substance use and unmet mental healthcare need among cancer survivors in the United States*

Catherine Wilsnack, PhD, LMSW, Tobacco Control Research Branch, BRP
Co-authors: Alissa Rams and Catherine Cubbin, PhD
Mentor: Annette Kaufman, PhD, MPH, Tobacco Control Research Branch, BRP

Background: Cancer survivors already face barriers to accessing mental healthcare and substance use may increase cancer survivors' odds of experiencing unmet mental health needs. The purpose of this study was to examine the relationship between current heavy alcohol and/or nicotine use and unmet mental healthcare need among cancer survivors in the United States. **Methods**: We used data from the 1997-2018 National Health Interview Survey (NHIS) to identify cancer survivors (≥18 years old at time of survey) who reported alcohol and nicotine use (N=8,516). Unmet mental healthcare need was operationalized as a dichotomous variable. Participants indicated if they were able to access mental healthcare or counseling in the past 12 months. Analysis used logistic regression while controlling for comorbid conditions, number of

cancer diagnoses, time since diagnosis, sex, age, marital status, region, race/ethnicity, education attainment, imputed family income, and health insurance. **Results**: In adjusted models, compared to cancer survivors who engaged in light drinking, cancer survivors who engaged in heavy drinking had 63% increased odds (OR=1.63, CI: 1.19, 2.23, *P*<0.01) of experiencing an unmet mental healthcare need vs. cancer survivors who did not. Cancer survivors who engaged in smoking had 46% increased odds (OR=1.46, CI: 1.22, 1.76, *P*<0.001) of experiencing an unmet mental healthcare need vs. cancer survivors who did not. Even controlling for smoking and drinking status and all other covariates, heavy drinking (OR=1.56, CI: 1.13, 2.15, *P*<0.05) and smoking (OR=1.38, CI: 1.14, 1.66, *P*<0.01) remained significant predictors for experiencing an unmet mental healthcare need. **Conclusion**: Cancer survivors who engaged in heavy drinking and smoking were associated with increased odds of experiencing an unmet mental healthcare need compared to cancer survivors who did not. Clinicians may face challenges in managing concurrent presenting issues. Measures to address substance use and barriers to mental healthcare among cancer survivors need to be improved.

Biosketch: Catherine Wilsnack, PhD, LMSW is a Cancer Prevention Fellow in the Behavioral Research Program's (BRP) Tobacco Control Research Branch (TCRB). In this role, she works with Dr. Annette Kaufman on mental health research related to polysubstance use among cancer survivors. Dr. Wilsnack also holds a secondary appointment with the Office of Healthcare Delivery and Collaborative Engagement (HDCE) in the Center for Cancer Research (CCR) where she works with Dr. Brenda Adjei. In this role, she is developing a quality improvement protocol to pilot and test the acceptability and feasibility of a patient navigation program for individuals on clinical trials at the NIH Clinical Center. During her PhD training, Dr. Wilsnack's dissertation used a mixed methods approach to characterize the relationship between substance use, mental health, and healthcare experiences for individuals who developed a substance use addiction after a cancer diagnosis. Prior to earning her PhD, she received her MSW from the University of Pennsylvania where she was clinically trained to work with individuals and families facing terminal illness. After earning her MSW, Dr. Wilsnack completed a CRTA fellowship with the Clinical Genetics Branch (CGB) in DCEG conducting psychosocial research for hereditary cancer syndromes. She continues to partner with rare disease patient advocacy groups to provide pro-bono clinical support.

Title: *The Psychosocial and Demographic Factors Impacting Smoking Cessation: A Literature Review*

Bailey Zimmerman, Tobacco Control Research Branch, BRP
Mentor: Stephanie Land, PhD, Program Director, Tobacco Control Research Branch, BRP

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Background: 1.18 billion people regularly smoke tobacco leading to severe, avoidable risks. With clear data outlining facilitators and obstructors of cessation, quit rates could be increased. **Overview**: This review aims to systematically gather evidence from individual smoking cessation studies with various predictors, summarize key components and outcomes, and provide implications for future intervention strategies. **Methods**: Informed by PRISMA-ScR guidelines, a comprehensive search of PubMed's database for relevant literature from 1 January 1990 to 3 June 2026 was completed. Out of 683 references screened, only studies describing cessation predictors were identified during a review, underscoring the data on various components' influence. A narrative, descriptive analysis of included articles was conducted. **Results**: The studies employed different methods, outcome measurements, and risk assessment tools. Of the 65 eligible studies, substantial commonality in predictors was measured. The predictors could be categorized into 3 classes - patient (n = 45 studies), community (n = 4), and both patient and community (n = 16). Analyses revealed patients likely to stop smoking were those reporting high motivation to quit (17% of studies), self-efficacy (14%), and tobacco-related health concerns (9%), along with higher education (12%). Motivation to quit was shown to increase due to different reasons. Those less likely to quit reported low socioeconomic status (15%), presence of peer or household smoking (17%), and higher nicotine dependence (9%). Exceptions to commonality applied in areas of age and gender. Overall, lower nicotine dependence is associated with cessation despite differences in age or gender. There were few outlying studies challenging any significant impact of the most common predictors. Broader search terms and databases could eliminate limitations. **Conclusions**: Predictors of successful smoking cessation identified included motivation to quit, education level, socioeconomic status, and more which can be used to tailor interventions to enhance cessation rates. Dedicated efforts are needed to understand and address the predictors consistently appearing.

Biosketch: Bailey Zimmerman is a Cancer Research Intern in the Tobacco Control Research Branch (TCRB) within the Behavioral Research Program at NCI. Mentored by Dr. Stephanie Land, her primary research focuses on tobacco use among patients in cancer prevention and screening settings. Additionally, Ms. Zimmerman assists with an ongoing project aimed at optimizing tobacco cessation interventions for people living with HIV. Prior to joining NCI this summer, she finished her first year of undergraduate school at the University of Virginia. At her university she is majoring in Biology on the pre-medical track with long-term career objectives to become an oncologist specializing in breast cancer patients. She also is minoring in American Sign Language with hopes to foster a more inclusive healthcare environment for those a part of the Deaf and hard-of-hearing communities. Her research project focused on determining the potential psychosocial and demographic factors impacting an individual's smoking cessation.