A blue and green text

Description automatically generated with low confidence

DCCPS Fellows Symposium 2023  
Abstract and Biosketch for Oral Sessions

**Oral Session 1:**

**Title:** *A Compositional Analysis of Leisure Screen Time and Body Mass Index in the ABCD Study***Jennifer Zink, PhD** (Health Behaviors ResearchBranch, Behavioral Research Program)  
**Co-authors:** Robert Booker, PhD, MS (Department of Preventive Medicine, Northwestern University) and Dana L. Wolff-Hughes, PhD (Risk Factors Assessment Branch, Epidemiology and Genomics Research Program) and Norrina Allen, PhD (Department of Preventive Medicine, Northwestern University) and Shaina J. Alexandria, PhD (Department of Preventive Medicine, Northwestern University) and Mercedes R. Carnethon, PhD (Department of Preventive Medicine, Northwestern University) and David Berrigan, PhD, MPH (Health Behaviors ResearchBranch, Behavioral Research Program)**Mentor:** David Berrigan, PhD, MPH (Program Director, Health Behaviors Research Branch,Behavioral Research Program)

**Background:** Youth use different types of screens (e.g., streaming, gaming) that may be uniquely related to body mass index (BMI). These screen types are interconnected with other activities (e.g., physical activity, sleep) that also affect BMI. Compositional data analysis (CoDA) can be used to model the association between interconnected, mutually exclusive behaviors and health outcomes. We used CoDA to examine whether time spent in different screen types, relative to time spent in the remaining activities, relate to BMI one year later. **Methods:** Baseline and one-year follow-updata were from the Adolescent Brain Cognitive Development Study (*N*=5,165, mean [SD] baseline age=10.0 [0.6] years, 49% female, 48% non-white). Participants reported baseline screen time, physical activity, and sleep. Screen groups analyzed were streaming, gaming, and socializing. Using CoDA, isometric log-ratio transformation was applied to a composition representing the relative proportion of time in each behavior. Sex-stratified linear regression estimated the association between baseline behavioral composition and follow-up BMI *z*-score, adjusted for baseline BMI *z*-score, participant characteristics, internalizing symptoms, and study design features. **Results:** Mean behavioral composition (min/day) was 152.0 streaming, 72.7 gaming, 46.8 socializing, 29.7 physical activity, 534.9 sleep, and 603.9 other. In males, a greater proportion of time spent in baseline socializing, relative to time spent in the remaining activities, was related to a higher follow-up BMI *z*-score (β [95% CI] = 0.05 [0.02 to 0.08]). No other significant associations were observed in males or females. **Conclusions:** CoDA can advance our understanding of the distinct BMI implications of different screen types, independent of other relevant behaviors. Further investigation of possible biological and behavioral mechanisms underlying the observed sex differences in these associations is warranted.

**Biosketch**: Jennifer (Jen) Zink, PhD, is a Cancer Prevention Fellow in the Health Behaviors Research Branch in the Behavioral Research Program. She is interested in health promotion via modifiable health behaviors in youth as a primary cancer prevention strategy. She is currently studying activities over 24 hours (physical activity, sleep, sedentary time, and screen time) as they relate to mental health and obesity outcomes across childhood and adolescence. She primarily does so by analyzing data from the National Health and Nutrition Examination Survey (NHANES) and the Adolescent Brain Cognitive Development (ABCD) cohort. She earned her PhD in Preventive Medicine from the University of Southern California, where she was funded by a T32 Cancer Control and Epidemiology training grant and served as a project manager on a randomized crossover trial that tested the acute metabolic and emotional effects of reducing sedentary time in adolescents.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Title:** *Linking A New Dietary Carbon Footprint Dataset to NCI’s Diet History Questionnaire (DHQ): Enabling Sustainable Diet Research*

**Emily Krueger, MS** (Risk Factor Assessment Branch, Epidemiology & Genomics Research Program)

**Mentors:** Jill Reedy, PhD, MPH, RD (Branch Chief, RFAB, EGRP) and Kirsten Herrick, PhD, MSc (Program Director, RFAB, EGRP)

**Overview & Background:** Environmental sustainability is an increasingly important dimension of diet for consumers, researchers, and policy makers. To expand the utility of the NCI’s diet assessment survey tool, the Diet History Questionnaire (DHQ), we linked with a new dietary carbon footprint database. The Database of Food Recall Impacts on the Environment for Nutrition and Dietary Studies (DataFRIENDS) measures carbon footprints as greenhouse gas emissions from food production. Because the DHQ database (DHQ-D) and DataFRIENDS are both based on USDA food codes, a novel linkage to estimate carbon footprints of self-reported diets is possible. **Methods:** The objective of this methodological study was to characterize linkages between DHQ-D and DataFRIENDS to facilitate future work in sustainable diet research. We compared each version of the databases temporally and by food codes. **Results:** The temporal comparison showed that DHQ II-D (2001-06) was most contemporaneous with DataFRIENDS 1.0 (2005-10) as was DHQ III-D (2007-15) with DataFRIENDS 2.0 (2005-10, 15-16). The food code comparison showed a range of 12 to 988 missing matches with DHQ II-D having the fewest and DHQ III-D having the most. DHQ I-D and II-D missing items reflected foods not directly assessed in the DHQ survey including baby foods and sugar substitutes. DHQ III-D was missing a variety of foods without a discernable pattern. **Conclusions/Discussion:** Despite the indirect overlaps, linkages are feasible between the databases examined, with DHQ II-D and DataFRIENDS 1.0 illustrating the closest temporal alignment and fewest missing matches. Next steps may address DHQ I-D and II-D missing items with sensitivity analyses and by matching to a similar food for DHQ III-D missing items. We will evaluate the linkages in existing cohort data and release the linkages publicly to serve extramural researchers. This project will facilitate future work that examines relationships between diet quality, sustainability, and health outcomes.

**Biosketch:** Emily Krueger is a second year Cancer Research Training Award (CRTA) Fellow in the Epidemiology and Genomics Research Program’s (EGRP) Risk Factor Assessment Branch (RFAB). In this role, she provides research support for several external facing projects, including the [Automated Self-Administered 24-Hour Dietary Assessment Tool](https://epi.grants.cancer.gov/asa24/) (ASA24), the [Diet History Questionnaire](https://epi.grants.cancer.gov/dhq3/) (DHQ), and the [Nutrition for Precision Health, powered by *All of Us* Research Program](https://commonfund.nih.gov/nutritionforprecisionhealth). She enjoys communicating science to the public audience and seeks to improve study participant engagement through easy-to-understand return of results. Her scientific interests are at the intersection of diet quality and environmental sustainability.Emily received her M.S. in Nutritional Science and B.S. in Environmental Science from Brigham Young University. Throughout her studies, she participated in laboratory cancer and diabetes research, and she hopes to pursue doctoral work that will bless the lives of chronic disease patients. She aspires to be a scientist who can bridge the divide between basic laboratory research and population-based research.Emily works remotely from her home in the Michigan countryside. She and her husband enjoy living close to nature and love playing with their cats, Mario and Luigi. They are excited to welcome their first baby boy this Fall.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Title:** Association of Neighborhood Gentrification with Prostate Cancer and Immune Markers in African American and European American Men  
**Catherine Pichardo, PhD, MA** (Health Behaviors Research Branch, Behavioral Research Program)  
**Co-authors**: Adaora Ezeani and Margaret S. Pichardo and Tanya Agurs-Collins and Tiffany M Powell-Wiley and Brid Ryan and Tsion Minas and Maeve Bailey-Whyte and Wei Tang and Tiffany H. Dorsey and William Wooten and Christopher A. Loffredo; and Stefan Ambs  
**Mentors:** Linda Nebeling, Ph.D., M.P.H., R.D., F.A.N.D**. (**Deputy Associate Director, Health Behaviors Research Branch, Behavioral Research Program) and Tanya Agurs-Collins Ph.D., R.D. (Program Director, Health Behaviors Research Branch, Behavioral Research Program, Office of the Associate Director)

**Background:** Prior studies showed that neighborhood deprivation increases the risk of lethal prostate cancer. However, the role of neighborhood gentrification in prostate cancer development and outcome remains poorly understood. We examined the relationships of gentrification with prostate cancer in a diverse cohort. **Methods:** This case-control study included 769 cases [405 African American (AA), 364 European American (EA) men] and 1023 controls (479 AA, 544 EA), with 219 all-cause and 59 prostate cancer-specific deaths among cases. Geocodes were linked to a neighborhood gentrification index (NGI) derived from US Census data. Cox and logistic regression were used to determine associations between NGI, as continuous or quintiles (Q), and outcomes. **Results:** Adjusting for individual socioeconomic status (SES), continuous NGI was associated with prostate cancer among all men (odds ratio (OR) 1.07, 95%CI 1.01-1.14). AA experienced the highest odds of prostate cancer when residing in tracts with moderate gentrification (Q3 OR 1.79, 95%CI 1.11-2.88). However, EA men experienced a reduced risk of regional/metastatic cancer (risk ratio 0.62, 95%CI 0.40-0.97) with increased gentrification, adjusting for SES. Continuous NGI was associated with mortality among men presenting with localized disease (all-cause hazard ratio 1.10, 95%CI 1.01-1.20; disease-specific subdistribution hazard ratio 1.16, 95%CI: 1.01-1.33). **Conclusions**: Findings show that neighborhood gentrification modestly associates with prostate cancer and mortality in this diverse population. They suggest that changing neighborhood socioeconomic environments may affect prostate cancer risk and outcome, likely through multifactorial mechanisms.

**Biosketch**: Catherine M. Pichardo, Ph.D., is a Cancer Research Training Award fellow in the Office of the Associate Director and the Behavioral Research Program of the Health Behaviors Research Branch. Dr. Pichardo’s research focuses on understanding the role of multilevel determinants of cancer-related disparities. Topics of interest include the influence of adverse environments on racial/ethnic minority health and health inequities. Within this topic, she conducted studies of interpersonal racial/ethnic discrimination, neighborhood segregation, racism-related coping mechanisms, sleep, mental health, metabolic health, and cancer. Specifically, Dr. Pichardo is pursuing research examining how multidimensional factors at the neighborhood and individual levels interact to influence mechanisms and metabolic functioning and physiologic biomarkers, and in turn produce inequities in cancer outcomes among racial/ethnic groups. Dr. Pichardo earned a Ph.D. in Psychology with a concentration in Community and Prevention Research from the University of Illinois at Chicago (UIC). Her predoctoral work was funded by an NCI T32 Cancer Education and Career Development Program training grant at UIC's Institute for Health Research and Policy. She holds a bachelor's degree in Psychology from St. John's University in Queens, New York.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Title:** *Measuring the impact of recurrence on survival in the top ten solid tumors with the highest mortality rates in the U.S.***Esmeralda Ramirez-Peña, PhD, MPH** (Data Quality, Analysis, & Interpretation Branch, Surveillance Research Program)  
**Co-authors:** Amina Chtourou MPH and Serban Negoita MD DrPH  
**Mentors:** Serban Negoita MD DrPH (Chief, Data Quality, Analysis, & Interpretation Branch, Surveillance Research Program) and Brandy Heckman-Stoddard PhD MPH (Chief, Breast and Gynecologic Cancer Research Group, Division of Cancer Prevention)

**Background:** Recurrence is defined as a cancer that was treated, reduced to undetectable levels, and later returned either locally, regionally, or distantly. After a patient is diagnosed with a recurrence, they experience health related events that impact their survival, quality of life, and finances. Measuring recurrence from population-based cohorts can enhance our understanding of what clinical, demographic, and geographic factors impact the risk of recurrence. Here we report a subset of population-based recurrence estimates in the top ten solid tumors with the highest mortality rates in the US. We hypothesize that the probability of survival from time to recurrence (TTR) will be different from than time from recurrence to cancer death (RCD). **Methods:** This data transmitted to SEER was acquired in November 2022. It includes patients diagnosed with cancer from January 2010 to December 2020, type of first recurrence, and date of first recurrence. First, we performed a series of exclusions to obtain an analyzable dataset. We used the Kaplan-Meier method to estimate TTR, and survival time from RCD. **Conclusions:** The cancer sites with the shortest median TTR were brain (8 months), pancreatic (11 months), and liver cancer (11 months). The sites with the longest median TTR were prostate (27 months) and female breast cancer (25 months). The sites with the shortest median RCD were pancreatic (9 months), lung (13 months), and brain (13 months) cancer. The sites with the longest median RCD were Non-Hodgkin Lymphoma (114 months) and female breast (31 months). In summary, we found that the time from recurrence to death is cancer site dependent. Using SEER data, we can estimate a more accurate and empirical measurement of time to death.

**Biosketch**: Esmeralda Ramirez-Peña, Ph.D., M.P.H., is a Cancer Prevention Fellow (CPF) at the National Cancer Institute in the Division of Cancer Prevention and the Division of Cancer Control and Population Sciences. Her research at NCI is focused on improving the use of surrogate endpoint biomarkers in breast cancer chemoprevention clinical trials and evaluating population-based recurrence estimates. As part of her fellowship, she completed a Master of Public Health degree at the Johns Hopkins Bloomberg School of Public Health. In 2021 and 2023 she received NCI Director’s Awards for Emerging Leaders. In 2020 she was a selected scholar for the Scientist Mentoring & Diversity Program (SMDP). In 2018 she received her Ph.D. in Biomedical Sciences from The University of Texas MD Anderson Cancer Center UTHealth Graduate School of Biomedical Sciences. Her doctoral research investigated intracellular metabolic alterations that enable metastasis in breast cancer.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Title:** *Perceptions of HPV-linked oropharyngeal cancer risk messages among a sample of young adult men in the US.*

**Alyssa Harrell, MA** (Behavioral Research Program, Office of the Associate Director)  
**Co-authors:** Jacob Rohde, PhD, MPH and George Kueppers, PhD

**Mentor:** Amy Caplon, MPH **(**Public Health Advisor, Behavioral Research Program, Office of the Associate Director)

**Introduction**: Awareness of risk for oropharyngeal cancer from oral human papilloma virus (HPV) infection is low among US men. This pilot study tested messages, informed by information processing theory, communicating the link between oral HPV and oropharyngeal cancer among a sample of US young adult men. Ultimately, this work seeks to identify useful messages and themes that could be used in campaigns targeting this population. **Methods**: We tested six oral HPV and cancer risk messages in an online pilot study. Participants (N=68) were young adult men in the US (aged 18-26) recruited from Prolific in March 2023. Participants were randomly assigned to one of two message sets. Each set contained three different text-based messages (~30 words per message). Participants evaluated messages separately based on various measures (e.g., perceived message effectiveness [PME], message novelty). We used one-way, repeated measures ANOVAs to assess differences in message evaluations within message sets. Participants also provided open-ended feedback about each message which we synthesized into overarching themes. **Results**: Overall, participants were receptive to the risk messages, rating them high on PME (mean range=3.72-4.25 out of 5) and other measures. Analyses within message sets identified three high-performing messages. For example, in message set 1, participants rated a message about HPV-linked oropharyngeal cancer risk rates in men vs. women higher on attention and novelty than the other two messages in the set (both *p*s < .05). Common themes from open-ended feedback were that participants liked the short-form structure of the messages and that the messages used male gender-tailored language. **Conclusion**: Oral HPV and oropharyngeal cancer risk messages tailored to men may be useful for increasing risk awareness among this population. Further work should test these messages in rigorous experimental contexts to assess their efficacy in modifying other health outcomes, such as HPV vaccination intentions and actual HPV vaccine behavior.

**Biosketch:** Alyssa Harrell, M.A., is a Cancer Research Training Award fellow in the Office of the Associate Director of the Behavioral Research Program (BRP). Ms. Harrell primarily works on communication projects to support BRP’s four branches as well as various health communication research projects. Ms. Harrell’s research interests include patient-provider communication, health information seeking behaviors, and patient self-advocacy. Before joining BRP, she was an NCI Communications Fellow in the Center for Cancer Research Neuro-Oncology Branch. Ms. Harrell earned a Master of Arts in mass communication from the University of South Florida where she focused her studies on how media influences health behaviors. She also holds a bachelor’s degree in public relations and advertising from the University of Central Florida.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Oral Session 2:**

**Title:** *Effects of high certainty language on the perceived likelihood that alcohol causes cancer: The mediating role of message reactance*

**Jacob Rohde, PhD, MPH** (Health Communication and Informatics Research Branch, Behavioral Research Program)  
**Co-authors:** Carlos O. Garrido, PhD and MPH, Richard P. Moser, PhD, and Paul Han, MD, MPH

**Mentor:** Heather D’Angelo, PhD, MHS (Program Director, Health Communication and Informatics Research Branch, BRP)

**Background:** Alcohol consumption causes several types of cancer. This online experiment tested alternative language for communicating the causal link between alcohol and cancer and the theoretical mechanisms driving message-related effects. **Method:** A convenience sample of U.S. adults (*N*=799) was recruited by the online commercial research platform Prolific. Participants were randomized to view messages that explained the association between alcohol and cancer using either 1) high certainty language (e.g., “Drinking alcohol causes cancer”), or 2) low certainty language containing a hedging modifier (e.g., “Drinking alcohol may cause cancer”). Our primary outcome was the perceived likelihood that alcohol causes cancer (single item). We also assessed perceived message effectiveness (PME), message reactance, and perceived message credibility (3-item scales each). We used a multilinear regression model adjusting for sociodemographic characteristics to assess correlates of the study outcome. We also separately tested whether PME, message reactance, or perceived credibility mediated the effects of the experimental message condition on perceived likelihood that alcohol causes cancer. **Results:** About half (53%) of participants consumed alcohol one or more days per week, on average. In multivariable analyses, high certainty language (*b*=.69, *p* < .001) and perceived message credibility (*b*=.44, *p* < .001) were positively associated with perceived likelihood that alcohol causes cancer, whereas message reactance was negatively associated (*b*=-.14, *p*=.002). There was no association between PME and perceived likelihood. Lastly, high certainty language was positively associated with message reactance (*b*=.25, *p* < .001), and message reactance mediated the effect between the high certainty message condition and perceived likelihood that alcohol causes cancer (indirect effect *b*=-.10, *p*=.002; total effect *b*=.60, *p* < .001). **Conclusion:** Compared to low certainty hedging language, high certainty alcohol-cancer risk messages led to higher perceived likelihood that alcohol causes cancer and negative reactance. Efforts to increase alcohol-related risk perceptions should pretest messages to understand potential unintended effects on other important cognitions.

**Biosketch:** Jacob Rohde, PhD, MPH, is a Cancer Prevention Fellow in the Health Communication and Informatics Research Branch. Jacob’s research is predominately focused on risk communication. To date, much of his work has investigated how health messages can be most effectively used to discourage vaping and other substance use behaviors. Some of his other research interests include computational social science and digital and social media. Jacob earned his PhD from the University of North Carolina at Chapel Hill. His dissertation developed and tested a support-based eHealth intervention that sent illness management information to people with inflammatory bowel disease. He also holds an MPH from Harvard University, an MA from Boston University, and a BA from the University of Wisconsin at Milwaukee.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
 **Title:** *Barriers to care delivery for cancer patients and survivors with disabilities*  
**Andrew Obeng, MA** (Healthcare Delivery Research Program, Office of the Associate Director)  
**Mentor**: Brenda Adjei, MPH (Healthcare Delivery Research Program, OAD)

**Overview**: The goal of this systematic review was to examine the existing literature to identify existing barriers in cancer care delivery for people with long term disability. **Background**: According to a 2020 NCI study, about one third of the population of the United States will be diagnosed with cancer during their lifetime. According to the CDC, about one in four people in the United States have a disability that affects their day-to-day activities. Disability presents complications to nearly every phase of cancer care but despite the prevalence of these complications, research centered around disability and cancer care is limited. **Methods**: This project involved a rapid umbrella review of systematic reviews based on a search of the PubMed/MEDLINE and Embase databases. Included studies were conducted between 2017 and 2023, focused on patients diagnosed with permanent disability prior to entering cancer care, and were written in the English language. Quality was assessed using the AMSTAR 2 critical appraisal tool. **Results**: After conducting search and review phases, eleven systematic reviews were identified as the final sample (N=11). The studies largely focused on cancer screening (n=6) and treatment (n=6) of those with disabilities that cause impairment to cognitive ability (n=8) and independent living (n=7). A qualitative analysis of the studies identified five barriers: Lack of cancer care literacy among patients (n=6), implicit and explicit ableism among care staff (n=4), systemic issues within the cancer care system (n=4), negative patient perceptions of care (n=5), and complications created by the patient’s disability (n=5). **Discussion**: Barriers identified the need for change in cancer care delivery. Patients need comprehensive education on the care process to alleviate their anxieties. Caregivers would also benefit from learning about intricacies of their patients’ disability both to address their assumptions and challenge inequitable systems. Addressing these would likely improve outcomes for the patient populations.

**Biosketch**: Andrew Obeng was a 2022–2023 Communication Fellow for the Healthcare Delivery Research Program. Andrew is a graduate of the Clemson University MACTS program. While at NCI, he supported communication and outreach activities, including coordination of programmatic activities for the Addressing Social Risks and the Structural Racism in Cancer Care scientific priority areas. In addition, he assisted with the development and planning of scientific activities related to healthcare disparities and equity-related research in cancer care delivery. His research interests include disability's intersections with aspects of daily life, clinical care of marginalized populations, and healthcare policy. In particular, he is interested in aspects of health and healthcare from patients' perspectives through firsthand accounts. Andrew plans to continue his study of healthcare systems through the lens of marginalization and patient-first approaches.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Title:** *eHealth and Cancer Health Literacy in an Urban Cancer Patient Population: Associations with Information Processing Style and Patient-Reported Anxiety* **Maria A. Rincon, PhD, MPH** (Behavioral Research Program, Office of the Associate Director) **Mentor:** Richard P. Moser, PhD (Behavioral Research Program, Office of the Associate Director)

**Abstract:** **Study aim:** The aim of this study is to examine the relationships between eHealth and cancer health literacy to information processing style and patient anxiety. **Background:** Adequate eHealth/digital health literacy is important for cancer patients, as many information sources depend on Internet-driven tools. Older adults, those with low Internet proficiency, and lower SES are more likely to have poor eHealth literacy. Information processing style, the seeking (“monitor”) or avoidance (“blunting”) of information with respect to a perceived threat has been shown to increase anxiety. Among cancer patients, monitors are more likely to experience decisional regret, less satisfaction with information, and suffer from affective outcomes. **Methods:** Patients were recruited from the oncology department at Temple University Hospital in Philadelphia, PA. Inclusion criteria included: being 18 or older and having an active cancer diagnosis. Consenting participants completed paper surveys, including questions on eHealth and cancer health literacy, anxiety, and information processing. Regression models were conducted to assess the relationship of eHealth and cancer health literacy to anxiety and information processing. **Results:** Patients 65 and older were less likely to score as borderline/abnormal anxiety (OR= 0.19, p < 0.001); age was associated to anxiety level (OR=0.23, p < 0.001). No significant associations to anxiety scores were found with relation to the seven domains of the eHealth Literacy Questionnaire (eHLQ). One eHLQ domain, “ability to engage with digital services,” was associated to monitoring level (OR= 0.21, p= 0.02). Cancer health literacy was significantly associated to information processing (OR= 0.27, p=0.004), with patients of lower cancer literacy having greater odds to score as “blunters”. **Conclusion:** Race, age, prior cancer diagnosis and engagement with electronic devices can have meaningful impact on information processing and/or anxiety. These findings could guide the tailoring of future health interventions, accounting for patients’ information-seeking style, and provide mental health support to those in need.

**Biosketch**: Maria Rincon, Ph.D., M.P.H., is a Cancer Research Training Award Fellow (CRTA) in the Office of the Associate Director of the Behavioral Research Program. Under the mentorship of Dr. Richard Moser, Maria’s work will focus on assessments and methods, particularly involving the Health Information National Trends Survey (HINTS), and HINTS-related resources, including HINTS-SEER (Surveillance, Epidemiology, and End Results), and the HINTS Data Linkage Project. Maria will also contribute to NCI-supported objectives for Healthy People 2030, and dissemination and engagement efforts of the Group-Evaluated Measures (GEM), a site supporting use of previously evaluated measures. Maria earned her Ph.D. in Social and Behavioral Sciences from Temple University. For her dissertation, Maria assessed the eHealth Literacy Questionnaire (eHLQ) in a low-income, urban minority population of cancer patients in Philadelphia, PA. Prior to her doctoral studies, Maria completed a 2-year internship in health communications in the Outcomes Research Branch with DCCPS’ Healthcare Delivery Research Program. Maria received a Master of Public Health in epidemiology from the Yale School of Public Health. She holds a bachelor’s degree in biology from the University of South Florida.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Title:** *Identifying Implementation Strategies to Support Cervical Cancer Screening Programs in Low- and Middle-Income Countries (LMICs) through Participatory Action Research*

**Margarita Correa-Mendez, PhD, MPH** (Implementation Science Team, DCCPS, and Center for Global Health)  
**Co-authors**: Aubrey Villalobos DrPH, Med and Julia C. Gage PhD, MPH and Laura Nervi PhD, MPH and Fatou Jallow PhD and Andrea Matos and Maria del Carmen Caruhapoma-Ortega and Víctor Palacios MD and Milagros Montes MD and Carlos Santos MD and Joanna Brown MS and Alejandro Salicrup PhD and Jose Jeronimo PhD and Patti Gravitt. PhD

**Mentors:** Gila Neta, PhD, MPP (Program Director, Implementation Science Team, OD) and Patti E. Gravitt, Ph.D., M.S. (Deputy Director, Center for Global Health)

**Background:** Improving the adoption and integration of cervical cancer screening programs in LMICs requires engaging with many local health system actors. We hypothesize that participatory design workshops co-developed by researchers, health system practitioners, and policy makers, facilitate rapid engagement to identify context-specific priorities and tailor strategies to improve implementation processes. **Study Design:** With the Peruvian Ministry of Health (MOH), we co-designed a week-long workshop with health system actors (planners, providers, lab technicians) from the North District of Lima. Through facilitated dialogue, participants engaged in self-reflection to map the cervical cancer screening and follow-up system, visualize system barriers, and identify potential solutions. As research partners, we analyzed findings from the workshop using the Consolidated Framework for Implementation Research, a framework from implementation science that identifies multilevel contextual factors that influence program implementation and guides the tailoring of strategies for improvement. **Results:** We identified key context-specific challenges including 1) The complexities around communicating screening results, appointments, and referrals, are burdensome for patients and cause loss to follow up, and 2) implementation plans are not adequately matched to resources and workforce capacity. We identified feasible implementation strategies to address these challenges 1) co-create counseling tools to help patients understand results and follow up steps for early detection and treatment of precancerous lesion that also reduce patients’ burden, and 2) Apply design workshops with key actors to develop an implementation blueprint to guide processes, acceptable adaptations, clinical workflows, and planning (ordering tests, supplies, training human resources, etc.) to align goals to prevention objectives and resources. **Conclusions:** Engaging with health systems actors through co-design workshops is a rapid research strategy enabling collective learning, identifying context-specific priorities, and developing tailored implementation strategies that are likely to accelerate integration of sustainable cervical cancer screening programs globally.

**Biosketch:** Margarita Correa-Mendez, PhD, MPH, is a Cancer Prevention Fellow with the Implementation Science Team and the Center for Global Health (CGH). Her research examines the sustainability of evidence-based practices for cancer control, with a focus on cervical cancer screening and treatment in low- and middle-income countries. She is also engaged in supporting the implementation and scale-up of cervical cancer control programs in Latin America. Prior to joining DCCPS and CGH, Margarita earned her MPH at the Johns Hopkins Bloomberg School of Public Health, where she studied barriers and facilitators for cervical cancer screening in the rainforest city of Iquitos, Peru, to inform program implementation. She also obtained a certificate in vaccine science and policy; and helped implement a vaccine education and outreach program at a clinic in Baltimore City. Dr. Correa-Mendez earned her Ph.D. in Biological Sciences from the University of Maryland Baltimore County.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Title:** *Combustible Tobacco Product Use Among Hispanic/Latino U.S. Adults, 2014-2019*

**Sam Cwalina, PhD** (Tobacco Control Research Branch, Behavioral Research Program)  
**Co-authors:** Maggie Mayer and Carolyn Reyes-Guzman and Kelvin Choi and Tim McNeel

**Mentors:** Carolyn Reyes-Guzman, PhD, MPH (Program Director, Tobacco Control Research Branch, BRP) and Maggie Mayer, PhD, MPH (Program Director, Tobacco Control Research Branch, BRP)

**Overview:** Most tobacco control research to date has defined “Hispanic/Latino” as a broad umbrella category meant to represent dozens of countries and cultures of origin, which may mask important differences in tobacco use patterns among this population. This study examined combustible tobacco use among Hispanic/Latino adults, stratified by national origin groups (Mexican, Puerto Rican, Cuban, Dominican, Central American, South American). **Methods:** We pooled two waves of data (2014-15 and 2018-19) from the Tobacco Use Supplement to the Current Population Survey. Among adults who identified as Hispanic, Latino, or Spanish origin (N=32,146), we estimated the weighted prevalence of current combustible tobacco use, defined as using at least one of the following products on some days or every day: cigarettes, cigars, hookah, pipe tobacco. **Results:** Puerto Ricans had the highest prevalence of combustible tobacco use (15.5%), followed by Cubans (10.9%), then Mexicans (9.0%), Dominicans (7.8%), South Americans (6.7%), and Central Americans (5.8%). Among Mexicans, Puerto Ricans, Dominicans, Central, and South Americans, those who were U.S. citizens by birth had greater use prevalence than non-U.S. citizens; however, among Cubans, non-U.S. citizens had a greater prevalence of use than citizens by birth (13.5% vs. 10.5%, respectively). Among Puerto Ricans, Dominicans, Central, and South Americans, those in the oldest age group (55 years or older) had the lowest use prevalence, but, among Cubans, those in the oldest age group had the highest use prevalence. Among Mexicans, the prevalence of use did not vary considerably across age groups: 8.5% for 18-34 years, 9.6% for 35-54 years, and 9.2% for 55 years or older. **Conclusions:** The estimated prevalence of combustible tobacco use varied between and within national origin groups. Future research should use increased specificity when identifying and describing Hispanic/Latino populations and consider national origin when developing culturally tailored strategies to reduce combustible tobacco use.

**Biosketch*:*** Sam Cwalina, PhD, is a Cancer Research Training Award (CRTA) fellow in the BRP Tobacco Control Research Branch. Sam’s independent research thus far has been guided by her passion for understanding biopsychosocial mechanisms underlying substance use and addiction. Before joining TCRB, she completed her PhD at the University of Southern California, where her dissertation research utilized epidemiological methods to study associations between anxiety symptoms and nicotine use among youth and young adults. Sam was also involved in tobacco-related research as an undergraduate at the University of Pittsburgh, where she assisted with experiments that examined factors that influence the addictive potential of nicotine in rat subjects and adult cigarette smokers.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Title:** *From research scientist to U.S. public servant: My career journey as an underrepresented Latino immigrant*  
**Carlos Garrido, PhD, MPH, MS** (Scientific Program Officer, Integrative Biological and Behavioral Sciences, Division of Extramural Scientific Programs)

Carlos Garrido, PhD, MPH, MS, is a Scientific Program Officer in the Division of Integrative Biological and Behavioral Sciences at the National Institute on Minority Health and Health Disparities (NIMHD). Prior to joining NIMHD, Dr. Garrido held the role of Cancer Research Training Award Fellow at the National Cancer Institute (NCI), Office of the Associate Director, Behavioral Research Program, Division of Cancer Control and Population Sciences. Prior to NCI, Dr. Garrido was a T32 postdoctoral fellow at the University of Arizona Cancer Center. As a current Program Officer, Dr. Garrido administers a diverse research portfolio of grants, interacts with extramural grantees to assess research needs and opportunities, and develops research concepts and program announcements. He is a member of several scientific working groups and executes evaluative research to provide scientific expertise to NIMHD and the Federal Government.

By training, Dr. Garrido is an experimental social psychologist whose program of research straddles the fields of public health, communications, and social-cognitive psychology. As the principal investigator, Dr. Garrido has conducted research spanning from the basic science of person perception and social cognition to psychosocial determinants of health. A major aim of his current work is to reduce health disparities and benefit segments of the population that have typically been underrepresented and/or underserved in public health research. For example, he examines psychosocial factors promoting and/or inhibiting health promotive behaviors, and the manner that interpersonal biases influence individual-level health outcomes. As an ethnic minority group member in science, Dr. Garrido remains cognizant of the detriments that affect other minoritized group members in higher education and in government. Thus, he remains committed to working with members of diverse populations to the fullest capacity.