

Scientific Abstracts Accepted to the 2026 New York City Epidemiology Forum

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Title	Presenter Name	Other Authors	Organization	Associated Organizations
Demographic differences in drug-related emergency department visit trends in New Jersey, 2013-2021	Aabha Vora	Mireia Triguero Roura, Pia M. Mauro	Rutgers School of Public Health	
Background: Recent studies show widening disparities in drug overdose deaths among racially minoritized populations in the US. Trends call for localized studies in emergency department (ED) settings, which are important intervention points to prevent mortality. We estimated trends in the drug-related burden of ED visits by racialized groups in New Jersey (NJ) between 2013 and 2021. Methods: We used 2013-2021 data from 76 hospitals in the NJ Healthcare Cost & Utilization Project State Emergency Department Dataset, capturing ED visits not resulting in hospitalization. We calculated hospital-level ED drug-related burden (i.e., the rate of visits that are drug-related) by racialized groups (i.e., Asian or Pacific Islander, Black, Hispanic, white, other/unknown). We fit a linear regression of ED drug burden with a race-year interaction (reference: white) and hospital fixed effects, and estimated overall and annual percent changes (APCs) by racialized groups using marginal means. Results: Drug-related burden in NJ increased from 2013-2021 overall (5.7 per 1000 visits to 12.0 per 1000 visits) and across groups, with white people having the highest drug-related burden (17.76 per 1000 visits in 2021). The largest relative increases in drug-related burden from 2013-2021 were among Black (193.0%) and Hispanic people (125.2%), and regression estimates indicated significantly larger increases for most racially minoritized groups. Black people (APC=16.64%, 95% CI=14.95-18.36%), Hispanic people (APC=12.98%, 95% CI= 11.30-14.68%), and other/unknown groups (APC=12.12%, 95% CI=10.46-13.80%), but not Asian and Pacific Islander people (APC=9.85, 95% CI=8.00-11.74%), had significantly higher annual increases in drug burden than white people (8.25, 95% CI=6.69-9.83%). Conclusion: Increases in ED drug-related burden differed by racialized groups in NJ. White people had the highest ED drug-related burden overall, but?larger increases among Black and Hispanic people contributed to narrowing disparities. Studies should explore whether this reflects inequities in access to drug treatment, harm reduction, and prevention interventions.				

A Mixed-Methods Pilot Project to Examine Chagas Disease in the United States	Abbey Jones	Abbey M. Jones (1,2), Marija Zeremski (2), Yiqi Tian (2), Eunice Mak (2), Megha Khatri Arora (3), Manoj Kandpal (1), Jackie Cortez (2), Nancy Jenks (4), Sudha Nagalingam (5), Joel E. Cohen (1), Jonathan N. Tobin (1,2)	1. The Rockefeller University 2. Clinical Directors Network, Inc. (CDN) 3. Bronx Regional Health Information Organization (Bronx RHIO) 4. Sun River Health 5. El Rio Health	The Rockefeller University
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Background: Chagas disease, caused by the parasite *Trypanosoma cruzi*, results in cardiovascular complications, cardiomyopathy, and death in 30% of people with untreated infections. The CDC estimates 250,000 individuals with Chagas disease in the USA, but our queries of national databases have found only 2,000-4,000 diagnosed individuals. We conducted a mixed-methods investigation to further examine this disparity. Methods: Data on Chagas disease patients were extracted from two electronic health records databases, the Bronx Regional Health Information Organization (Bronx RHIO), covering 5.8 million patients in the Bronx, NY, and TriNetX, a clinical database of 134 million patients in the USA. Univariate statistics were used to describe demographics, clinical characteristics, and cardiac imaging among individuals with Chagas disease diagnoses. Bivariate statistics and logistic regression were used to compare Chagas disease patients with and without cardiomyopathy. Four focus groups were conducted with patients, community members, clinicians, and staff to examine barriers and facilitators of screening, diagnosis, and treatment of Chagas disease in the USA. Results: Data were obtained on 61 Chagas disease patients (41.0% with cardiomyopathy, n=25) in Bronx RHIO and 1,818 Chagas disease patients (15.3% with cardiomyopathy, n=279) in TriNetX. We found few significant differences among Chagas disease patients with and without cardiomyopathy in Bronx RHIO. Chagas-cardiomyopathy patients were more likely to be on antihypertensives, statins, and have received cardiac imaging compared to Chagas disease patients without cardiomyopathy in TriNetX. Factors identified as barriers to Chagas disease screening, diagnosis, and treatment include complex testing algorithms, limited awareness, costs, and challenges serving medically underserved patient populations. Facilitators include dedicated staff time, bilingual staff, integrated teams across specialties, and funding mechanisms that will cover testing and treatment costs. Discussion: Chagas disease is underdiagnosed and undertreated in the USA. Improved screening, testing, and treatment programs are needed.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Investigating the Prevalence and Predictors of Serious Psychological Distress Among Adult Residents of High Poverty Neighborhoods in NYC During a Public Health Emergency	Adam Wohlman	Christina Nieves	NYC Department of Health and Mental Hygiene	
Background: Serious Psychological Distress (SPD) is a mental health indicator that identifies severe levels of psychological distress that can impede daily functioning. In 2022, the prevalence of SPD was estimated at 13% among NYC adults, compared to previous estimates of 7% in 2017 and 5% in 2015. The high prevalence of SPD among adults in 2022 may reflect the Covid-19 pandemic's negative effect on mental health in NYC. As pandemics disproportionately affect the poor and disadvantaged, this study investigated the prevalence and predictors of SPD in 2022 among NYC adults by neighborhood poverty level. Methods: Data were collected through the 2022 Social Determinants of Health Survey. Survey respondents were recruited from a probability-based survey panel maintained by the Health Department and 9,654 panelists received the survey. SPD was measured using the Kessler Psychological Distress Scale. Weighted prevalence estimates were computed in SUDAAN and stratified by neighborhood poverty level. Associations between individual social determinants of health and SPD were analyzed in logistic regression models that estimated the odds of SPD among adult residents of high and very high poverty neighborhoods. Results: In 2022, the prevalence of SPD was significantly higher among residents of NYC's very high poverty neighborhoods (13.36%) than among residents of NYC's low poverty neighborhoods (7.97%). Among adult residents of high and very high poverty neighborhoods, recent loneliness, risk of household food insecurity, and having a family member ever incarcerated were significant predictors of SPD. Discussion: In 2022, the prevalence of SPD appears to have been unusually high among NYC adults. Yet, SPD was more common among residents of NYC's highest poverty neighborhoods than among residents of low poverty neighborhoods. Findings can inform place-based mental health services in low-income communities harmed by the effects of structural racism, like those served by the Health Department's Bureaus of Neighborhood Health, including East and Central Harlem.				

Agreement of Self-Reported High Cholesterol Among Paulsboro, NJ Residents: Implications for Public Health Research	Adriana De Resende	Robert J. Laumbach MD, MPH, CIH. MS, Pamela Ohman Strickland PhD, Judith M. Graber, PhD.	Rutgers School of Public Health	
Background: Public health surveillance and research frequently rely on self-reported data, which is relatively inexpensive, quick, and efficient to collect. However, the accuracy of much of this data is unknown, particularly in understudied populations. This study aims to evaluate the agreement between self-reported high cholesterol and serum cholesterol levels in a racially and socioeconomically diverse NJ community. Methods The cross-sectional Paulsboro PFAS Health Study included surveys and a blood specimen collection. Self-reported high cholesterol from surveys was compared with high cholesterol defined by a one-time blood serum lipid level or the participant's report of using a lipid-lowering medication. Sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV), and agreement by Kappa statistic were calculated. Predictors of accurate self-reporting were evaluated using logistic regression. Results: In a convenience sample of 762 adults, the median age was 49 years; 63% were non-Hispanic Black and 29% non-Hispanic white. Almost a quarter (24%) reported ever being diagnosed with high cholesterol. Self-reported high cholesterol had a sensitivity of 41.1% and a specificity of 93.0%. 85% of those self-reporting high cholesterol were correct (PPV) while only 62.0% of those reporting no high cholesterol were correct (NPV). Overall, there was fair agreement (0.34). Significant predictors of accurate self-reporting in logistic regression include male sex and heavy alcohol consumption (compared to never drinkers). Conclusion: Self-reported high cholesterol had high specificity, showing that most individuals without high cholesterol correctly identified their status. However, sensitivity was much lower, suggesting that a significant portion of individuals with high cholesterol were unaware of their condition. While limitations, such as reliance on a single blood test and potential selection bias were present, the study contributes valuable insights from an underrepresented population. Improving health literacy and using self-reported data along with clinical measures will be important for improving the accuracy of future research.				

Title	Presenter Name	Other Authors	Organization	Associated Organizations
House-Ball Community as a Social Determinant of HIV Outcomes Among Transgender Women of Color	Alexander Furuya	Cho-Hee Schrader, Makella Coudray, Asa E. Radix, Jenesis Merriman, Denton Callander, Dustin T. Duncan	Columbia University Mailman School of Public Health	

Background: The New York City house-ball scene has historically been a community for queer people of color to form chosen families and social networks. We investigated the impact of house-ball participation on HIV care and prevention outcomes among transgender women of color (TWOC) living in New York City. **Methods:** We drew data from participants enrolled in the prospective cohort study called the Trying to Understand Relationships, Networks and Neighborhoods Among Transgender Women of Color (TURNNT) Cohort Study. From 2020 to 2022, the research team recruited 179 participants who identified as TWOC and asked them about their participation in the house-ball scene (never, former, current), and their status-neutral HIV care and prevention outcomes, including HIV/STI testing, condom use, PrEP use, and HIV viral load suppression. We used Targeted Maximum Likelihood Estimation (TMLE) to estimate the causal relative risk of house-ball participation on these baseline outcomes; we included age, education, income, and US-born nativity as potential confounders. **Results:** We found that 6.7% were currently participating in the house-ball scene, 20.7% formerly participated in the scene, and 72.1% never participated. Among TWOC living with HIV (n=94; 52.5%), we found a positive effect of current participation in the house-ball scene on past six-month STI testing compared to never participation (Relative Risk: 1.20, 95% CI: [1.07, 1.33]). Among TWOC not living with HIV (n=85; 45.7%), we found a positive effect of current participation in the house-ball scene on past six-month HIV testing (Relative Risk: 1.27, 95% CI: [1.11, 1.40]). **Conclusions:** Community, network connections, and exposure to health campaigns within the house-ball scene may enable and motivate individuals to achieve better HIV care and prevention outcomes.

Fast food environments and prenatal levels of phthalates and bisphenols: Associations in a New York City birth cohort	Alexis Grayon	Carol Duh-Leong, Akhgar Ghassabian, David C. Lee, Brian Elbel, M. Teresa Herrera, Whitney Cowell, Vittorio Albergamo, Robbie Manuel, Kurunthachalam Kannan, Leonardo Trasande	NYU Grossman School of Medicine	
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Background: Biomonitoring studies have shown that increased consumption of packaged foods is directly associated with higher biomarkers of endocrine-disrupting chemical exposure. However, the literature has primarily focused on self-reported food access and individual-level dietary behaviors. We aimed to assess the relationship between geospatial measures of the fast-food environment in New York City and biomarkers of exposure to common plasticizers during pregnancy. **Methods:** Within the NYU Children's Health and Environment Study (2016-2023), we examined associations between residential fast-food environment and urinary levels of 22 phthalate metabolites and 8 bisphenols among pregnant participants who lived in New York City at the start of pregnancy (n=1480). This was accomplished using census tract-wide relative density of fast-food restaurants from 2009-2013 derived from the New York State Department of Agriculture and Markets, in combination with log-transformed pregnancy-averaged urinary levels of ten phthalate metabolites and two bisphenols. We used linear mixed-effects models with random intercepts for census tract in the sample overall and stratified by obesity status. **Results:** Residential fast-food density ranged from 39% to 100% of restaurants among the study participants. In the overall model, a ten-percent increase in fast-food relative density was associated with a 10% increase in geometric mean molar concentrations of urinary phthalic acid, a common metabolite of all phthalate esters (geometric mean ratio [GMR] 95% CI: 1.02-1.19). Among participants with pre-pregnancy obesity, there were positive associations with mono-(2-ethyl-5-hydroxyhexyl) phthalate (GMR = 1.09; 1.00-1.19), mono-isobutyl phthalate (GMR = 1.11; 1.01-1.21), and phthalic acid (GMR = 1.24; 1.05-1.47). **Discussion:** Our findings suggest the structural food environment may influence prenatal chemical exposures, especially among individuals with pre-pregnancy obesity. This study demonstrates that the built environment has an impact on endocrine-disrupting chemical exposures, which can increase adverse birth outcomes and cardiometabolic health risks.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Characterizing the heat stress and air pollution exposome to assess acute kidney function in NYC runners	Aman Patel	Nicholas DeFelice, PhD; Chris Gennings, PhD	Icahn School of Medicine at Mount Sinai	
Background Extreme heat and wildfire-related air pollution are increasing in frequency and may pose heightened health risks during outdoor physical activity. The kidneys are sensitive to acute changes in hydration, perfusion, and systemic inflammation, yet the combined effects of environmental and physiological stressors on acute kidney injury markers during real-world exercise are not well defined. Methods We conducted a prospective repeated-measures field study of 14 adult runners completing three 20-kilometer outdoor runs in New York City between May and September 2023. Wearable sensors captured physiological and environmental exposures, including core temperature, heart rate, ventilation, running speed, wet bulb temperature, and fine particulate matter. Blood and urine were collected before and after each run. Exposures were summarized at the whole-run and early versus late 10-kilometer segment levels. Weighted quantile sum regression estimated joint associations between correlated exposures and percent change in kidney biomarkers. Results Serum creatinine, interleukin-18, and kidney injury molecule-1 increased significantly following exercise. Fourteen run trials across eight participants demonstrated serum creatinine increases of at least 0.3 milligrams per deciliter relative to baseline, consistent with commonly used clinical thresholds for acute kidney injury. Whole-run exposure mixtures were not significantly associated with kidney biomarker changes. However, segment-specific exposure mixtures were significantly associated with serum creatinine percent change. Across models, physiological variables contributed more strongly to mixture weights than environmental measures. Mixture weight contributions differed by sex, with environmental variables contributing more prominently among female participants. Discussion These findings suggest that acute kidney stress during strenuous outdoor exercise may be driven primarily by internal physiological strain, with environmental exposures acting as potential modifiers rather than dominant drivers. Integrating high-resolution environmental monitoring with physiologic measurement may improve risk assessment of kidney stress during extreme heat and air pollution events.				
Monitoring indoor air quality exposures over time among a longitudinal cohort of pregnant people in Queens, New York	Anika Nayak	Michelle Li, Olufunke Sowole, Tasnia Khan, Adela Hernandez, Uday Patil, Sheela Maru, Alison Lee	Icahn School of Medicine at Mount Sinai	
Background Indoor air pollution from cooking, primarily via gas stoves and solid fuel, releases harmful pollutants like particulate matter (PM_{2.5}), nitrogen dioxide (NO₂), and carbon monoxide (CO) linked to asthma, cardiovascular disease, and reduced lung function. We leveraged data from the Community and Household Infant Maternal Exposures (CHIMES) cohort to examine indoor air pollution during cooking and non-cooking periods. Methods Beginning in March 2024, CHIMES recruited pregnant participants before 24 weeks' gestation, following mother-infant pairs through the child's first year. We deployed the Modulair™ device in participants' homes to measure real-time PM_{2.5}, NO₂, and CO hourly for two-week deployments, twice over pregnancy. Participants self-reported cooking times, stove type, and other sources of indoor air pollution including tobacco smoking history and incense usage. We examined the distribution of each pollutant during defined cooking and non-cooking periods using Wilcoxon Rank Sum tests. Results We monitored indoor air quality in n = 56 homes between April 2024 and September 2025. All pollutant concentrations increased during cooking and remained elevated for hours afterward. PM_{2.5} was significantly higher during cooking (median = 27.04 $\mu\text{g}/\text{m}^3$; IQR: 15.06-66.86) compared with non-cooking periods (median = 7.94 $\mu\text{g}/\text{m}^3$; IQR: 4.12-14.10; $p < 0.001$). NO₂ was also significantly higher during cooking (median = 26.65 ppb; IQR: 15.75-39.79) versus non-cooking (median = 11.40 ppb; IQR: 7.98-19.68; $p < 0.001$). CO was significantly elevated during cooking (median = 1.99 ppm; IQR: 1.41-2.94) relative to non-cooking (median = 1.35 ppm; IQR: 0.97-1.81; $p < 0.001$). Cooking periods were defined as intervals in which at least two of three pollutants simultaneously exceeded participant-specific thresholds (non-cooking median + IQR). Discussion These findings show elevated indoor air pollution during cooking in households with pregnant people. Future research will investigate health impacts, while targeted community education can increase awareness and provide resources to mitigate exposure in vulnerable households.				

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Mental Health Consequences of Intimate Partner Violence: Outcomes and Barriers to Care for Women	Anisa Siddiqi	Mariam Sheikh	Rutgers School of Public Health	

Background: Intimate Partner Violence (IPV) is defined as actual or threatened physical, sexual, or psychological violence inflicted by a current or former partner. Estimates suggest that between 10% and 69% of women experience physical IPV during their lifetime, often accompanied by psychological abuse and sexual violence. Over the past two decades, research examining the mental health consequences of IPV has expanded, including depression, PTSD, and anxiety emerging as the most prevalent outcomes. IPV exposure is also associated with sleep and eating disorders, substance use, social dysfunction, and suicidal ideation. Despite this growing literature, research has historically emphasized the physical consequences of IPV, while the psychological impacts remain under-examined. **Methods:** A literature search was conducted using Rutgers Library databases and Google Scholar to identify peer-reviewed studies examining the relationship between IPV exposure, women's mental health outcomes, and barriers to accessing care. **Results:** Women experiencing severe combined physical, emotional, and sexual abuse report significantly poorer mental health outcomes and reduced quality of life compared with those experiencing single forms of abuse. **Discussion:** IPV exposure is consistently associated with adverse outcomes, including depression, anxiety, PTSD, and suicidal ideation. Evidence suggests that psychological and emotional abuse independently contribute to these results. Survivors frequently report unmet mental health needs, exacerbated by barriers such as fear, partner control, stigma, and fragmented healthcare systems. These findings highlight the need for routine IPV screenings within primary care and mental health settings, as well as trauma-informed, integrated care models. Early identification and intervention are critical to preventing long-term psychological distress. Future research should prioritize longitudinal and intersectional approaches to clarify causal pathways and evaluate targeted interventions.

Child Care Immunization Audits, New York City, 2025	Antonine Jean	Jenny P. Francis, Jennifer B. Rosen MD	NYC Department of Health and Mental Hygiene
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Background New York City (NYC) has over 2,700 child care programs. New York State (NYS) Public Health Law defines required immunizations for child care enrollment. Programs must complete a survey of self-reported immunization compliance annually. This report describes the use of immunization audits of selected programs to improve compliance with school-entry immunization requirements among child cares in NYC. **Methods** A total of 304 programs were selected for audit. Selection criteria included non-response to the 2025 immunization survey, self-reporting <95% compliance on the prior year's immunization survey, location in a zip code with low childhood vaccination coverage, or 75 students who remained non-compliant after audit completion during the prior audit. Audits were conducted between 5/30/25 and 10/16/25. Health Department instructed programs to provide student rosters with copies of immunization records, serology, or medical exemptions. Staff reviewed records for all students at each audited child care and used NYC's immunization information system (IIS) to identify additional immunization doses received. Staff shared lists of students missing immunizations with the programs and requested documentation of immunizations administered or attendance records confirming exclusion from programs within 2 weeks from audit completion. Outreach continued at sites after the 2-week follow-up completion for any students who remained non-compliant. Student and program-level compliance was calculated. **Results** A total of 297 programs (n=18,388 students) were audited. Student-level compliance was 91.9% (n=16,892) at audit, including 16,589 with age-appropriate vaccination/proof of immunity and 5 with medical exemptions. Median program-level compliance was 95.6% (range 21% to 100%). After continued outreach, student-level compliance increased to 100%. **Discussion** Audits combined with use of IIS data and diligent follow-up were successful in improving compliance with immunization requirements in NYC child cares, achieving 100% compliance among audited schools. Jurisdictions with poor compliance may benefit from implementing targeted audits. Ensuring high compliance with immunization requirements is critical to preventing vaccine-preventable diseases.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Buprenorphine treatment and overdose mortality across New York City neighborhoods in 2024	Ava Weitz	Ellenie Tuazon, Tracy Sun, Alice Welch, Shivani Mantha	NYC Department of Health and Mental Hygiene	

Background: Buprenorphine is a gold-standard medication for opioid use disorder (MOUD) that reduces overdose risk. Recently, the New York City (NYC) Health Department has expanded public health surveillance of buprenorphine to include neighborhood-level information per prescription for residents, prescribers, and pharmacies. To contextualize reductions in overdose mortality rates across NYC neighborhoods, we utilized New York State Prescription Monitoring Program (PMP) data for NYC residents to review neighborhood-level buprenorphine prescriptions. Methods: Buprenorphine prescriptions dispensed in 2024 to NYC residents were analyzed. Information on prescriptions included National Drug Code number, quantity dispensed, supply duration, month and year filled, patient age, patient sex, prescriber profession, prescriber specialty, and the first three digits of ZIP codes for patient residence, prescriber, and pharmacy, respectively. United Hospital Fund-42 (UHF-42) neighborhood groupings were assigned for patients, prescribers, and pharmacies if local to NYC. We calculated age-adjusted rates for prescriptions filled and patients filling prescriptions. We described filling patterns per month and a measure of continuous treatment as filling six or more months of prescriptions. Indicators were reviewed overall and by neighborhood. Findings were descriptively analyzed against overdose mortality data in the same UHF-42 neighborhoods. Results: In 2024, 15,768 NYC residents filled 121,255 buprenorphine prescriptions. Rates of patients and prescriptions per 100,000 population were highest in the South Bronx, East Harlem, and all Staten Island neighborhoods. Additionally, NYC neighborhoods with the largest proportion of residents in continuous treatment (ranging from 62% to 70%) also experienced the largest reduction in overdose mortality rate from 2023 to 2024 (ranging from -47% to -50%). Discussion: Public health surveillance using PMP data is important to understand local-level trends and inform interventions. Reviewing neighborhood-level buprenorphine findings paired with overdose mortality data can inform overdose prevention strategies, specifically those that facilitate MOUD provision in areas with high rates of overdose mortality.

Demographic Characterization of Vitamin D Deficiency and Chronic Disease Burden Among Bengali Immigrants in a Bronx NYC Clinic: Preliminary EMR Findings	Ayesha Siddiqua	Fatima Zohra, MPH Mohammad Navid Nayyem, MS Jordan Keys, MS, DO Alauddin Bhuiyan, PhD	Other	New York Institute of Technology College of Osteopathic Medicine
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Introduction: Vitamin D deficiency (VDD) is prevalent among South Asian immigrants in the West, and linked to various chronic conditions. Despite growing literature, VDD data remain limited among U.S. South Asian immigrants, particularly NYC's large, understudied Bengali community. This poster reports a retrospective electronic medical record (EMR) analysis examining VDD and related chronic diseases among Bengali adults receiving primary care in NYC. Methods: Health records for vitamin D-deficient Bengali adults from a Bronx-based clinic between October 2024 and October 2025 were retrospectively collected (preliminary n=480). VDD was identified using ICD codes and serum vitamin D laboratory values. Vitamin D deficiency severity was categorized as severe, moderate, mild, or previously deficient. Demographic characteristics and ICD-coded diseases were abstracted. Chi-square tests were used to compare the prevalence of selected chronic conditions across vitamin D severity categories. Results: The VDD severity varied significantly by age group ($p < 0.001$), with severe deficiency more common in younger adults. The majority were moderately (44.6%) or mildly deficient (34.7%). Nearly all patients (92.5%) were on vitamin D supplementation, and 80.6% were publicly insured. Chronic conditions were highly prevalent: hyperlipidemia (69.9%), hypertension (41.6%), diabetes (38.7%), at least one musculoskeletal complaint (64.6%). Over one-third had four or more chronic conditions. Comorbidity burden also differed across vitamin D severity categories ($p < 0.01$). The prevalence of hyperlipidemia ($p = 0.008$), hypertension ($p = 0.005$), neuropathy ($p = 0.014$), and osteoporosis ($p < 0.001$) differed significantly across vitamin D severity categories. Conclusion: These preliminary findings reveal a substantial burden of chronic disease among vitamin D-deficient Bengali immigrants. However, a single-clinic setting and reliance on EMR data with potential inaccuracies are notable limitations. Severe VDD in younger adults despite high supplementation suggests issues with adherence, dosing, or absorption. Expanding the data to identify associations and targeted public health interventions may mitigate chronic condition risk.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Telehealth Utilization and Up-to-Date Cervical Cancer Screening Among U.S. Women Aged 21-65 Years: A Population-Based Analysis of HINTS 6 (2022)	Bashair Alfraih		NYU School of Global Public Health	

Background: Cervical cancer remains a preventable yet persistent public health concern in the United States. The U.S. Preventive Services Task Force recommends routine screening for women aged 21-65 years to reduce morbidity and mortality through early detection. Although telehealth utilization increased substantially following the COVID-19 pandemic, its association with screening adherence remains unclear. This study examined whether telehealth utilization is associated with being up to date on cervical cancer screening and whether this association differs between younger (21-39 years) and older (40-65 years) women. **Methods:** We analyzed nationally representative cross-sectional data from the Health Information National Trends Survey (HINTS 6, 2022) (n = 2,286). Women were classified as up to date if they reported a Pap test within the past three years. Survey-weighted logistic regression models incorporating balanced repeated replication with Fay's adjustment ($\lambda = 0.3$) were used to estimate adjusted odds ratios (AORs) and 95% confidence intervals (CIs). The fully adjusted model included telehealth utilization, age group, education, income, race/ethnicity, geographic residence, insurance status, and HPV awareness. Effect modification by age group was assessed using an interaction term and stratified analyses. **Results:** Overall, 74.2% of women were up to date with screening and 46.0% reported telehealth use. Telehealth utilization was independently associated with higher odds of screening adherence (AOR = 1.48, 95% CI: 1.37-1.60). The interaction between telehealth use and age group was statistically significant (interaction OR = 0.72, 95% CI: 0.61-0.84; $p < 0.001$). The association was stronger among women aged 21-39 years (AOR = 1.85, 95% CI: 1.58-2.15) than among women aged 40-65 years (AOR = 1.23, 95% CI: 1.14-1.34). **Conclusions:** Telehealth utilization is positively associated with cervical cancer screening adherence nationally, with a stronger association among younger women. These findings underscore age-related differences in telehealth engagement and inform age-responsive cancer prevention strategies.

Early-life dentine-based elemental biodynamics and cord blood telomere length	Bhargavi Krishnamurthy Srinath	Kshitij Sachdev, Rohitha Ravisekar, Joseph Eggers, Libni Avib Torres Olascoaga, Mara Tellez Rojo, Robert B. Wallace, Robert Wright, Rosalind J. Wright, Manish Arora, Cecilia S. Alcala, Manasi Agrawal, Jamil M. Lane, Maria J. Rosa, Shoshannah I. Eggers, Vishal Midya	Icahn School of Medicine at Mount Sinai
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Cord blood telomere length (CBTL) is a marker of biological aging and long-term systemic health. However, little is known about the interplay between early-life elemental dysregulation and CBTL. From an ongoing longitudinal birth cohort study in Mexico City (PROGRESS), using extant tooth samples from 176 children (94 males and 82 females), we generated 17 elemental weekly time-series intensities from the second trimester through a year after birth. We analyzed the dentine growth rings using laser ablation-inductively coupled Plasma Mass Spectrometry (ICP-MS) to generate time-resolved elemental intensity signals. The elements included were Li, Mg, Ca, Cr, Mn, Co, Ni, Cu, Zn, As, Sr, Mo, Cd, Sn, Ba, Pb, and Bi. CBTL was measured using qPCR. We used cross-recurrence quantification analysis to generate time-resolved features that quantify the synchronization of multi-element biodynamics. We used a five-fold cross-validation of regularized ridge regression to identify the top biodynamic features, and covariate-adjusted linear models to estimate associations. Higher synchronicity (or higher similarity of trajectories) in Lithium-Magnesium temporal biodynamics was associated with longer CBTL (Recurrence rate: $\lambda = 0.33$, p -value < 0.001) in males but not in females ($\lambda = 0.02$, p -value=0.84); whereas higher synchronicity in Lithium-Lead temporal biodynamics was associated with longer CBTL (Recurrence rate: $\lambda = 0.30$, p -value = 0.007) in females but not in males ($\lambda = 0.05$, p -value = 0.62). We demonstrate that synchronization of early-life elemental biodynamics may be associated with longer CBTL in a sexual dimorphic manner. Early-life elemental biodynamics may be used to create CBTL-based aging markers.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Neighborhood Typology and A1C Trajectories among Women with Gestational Diabetes in New York City: A Longitudinal Study	Bohao Wu	Natalie Boychuk, Shelley Liu, Frances M. Howell, Andrew G. Rundle, Teresa Janevic	Columbia University Mailman School of Public Health	

Background: Neighborhood environments are associated with type 2 diabetes (T2D), yet prior studies have focused on single neighborhood determinants rather than multidimensional profiles. Women with gestational diabetes (GDM) experience heterogeneous postpartum glycemic trajectories. We used a data-driven approach to classify New York City (NYC) neighborhoods into distinct profiles and examined their associations with postpartum A1C trajectories among women with GDM. Methods: Using 2009-2021 linked NYC birth, hospital discharge, and NYC A1c Registry data, we identified GDM cases in birth/hospital data. Women with pre-pregnancy diabetes were excluded. We applied latent profile analysis to 10 social and built environment characteristics in 2010 to classify neighborhoods. The profile with the most average neighborhood characteristics was used as the reference. Participants' residential addresses were updated at each A1C test to assign neighborhood profiles as the time-varying exposure. We used linear mixed-effects models with random intercepts at the census block and individual levels to estimate adjusted differences in repeated A1C measurements across neighborhood profiles, adjusting for maternal age, race and ethnicity, educational attainment, nativity, and parity. Results: Among 13,231 women with GDM at baseline, seven distinct neighborhood profiles were identified. Compared with the Profile 5 neighborhoods (the most average), residence in Profile 1 neighborhoods ("Green and Wealthy", mean difference [?]: -0.11, 95% CI -0.21, -0.01), Profile 4 neighborhoods ("Unhealthy Built Environment and Wealthy", ? : -0.11, 95% CI -0.21, -0.02), and Profile 7 neighborhoods ("Affluent Urban", ? : -0.16, 95% CI -0.25, -0.07) was associated with lower A1C levels. Conclusions: Considering multidimensional neighborhood environments revealed distinct A1C trajectories after GDM, underscoring the value of neighborhood-based glycemic control.

ANXIETY AND MOTIVATION TO LEARN AMONG U.S ADOLESCENTS BEFORE AND AFTER THE COVID-19 PANDEMIC: A SECONDARY ANALYSIS OF NSCH DATA	Bola Olateru	SUNY Downstate School of Public Health
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Background: The effects of the COVID-19 pandemic are often cited from the point of view of adults and rarely on children and adolescents. This study sought to analyze the impact of the COVID-19 pandemic on the state of anxiety and motivation for learning of adolescents aged 10-17, compared with adolescents in the same age group before 2020. Methods: Using data from the National Survey of Children Health (NSCH), a secondary data analysis was conducted to compare pre-COVID-19 (2021-2023) mental and behavior health outcomes with post-COVID-19 (2018-2019) outcomes. Adolescents aged 10-17 who lived through the COVID-19 pandemic served as the inclusion criteria. Excluded from this analysis was data from 2020. Total sample size of this study was 98,551. Analysis was performed using SAS OnDemand and included a descriptive analysis of participants characteristics, chi-square tests for bivariate associations, and unadjusted and adjusted logistic regression models with survey weights applied for binary outcomes. Results: Through multiple logistic regression it was found that adolescents aged 10-17 had 19% greater odds of having anxiety post-COVID. In addition, adolescents aged 10-17 had 38% greater odds of low level of caring about school post-COVID. Lastly, adolescents aged 10-17 had 53% lower odds of having a high curiosity for learning new things post-COVID compared to Pre-COVID. Conclusion: The significant differences in anxiety prevalence and motivation to learn between COVID periods among adolescents indicate the need for enhanced social support and targeted public health interventions to facilitate resocialization.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Temporal Trends and Changes in the NYC Opioid Supply: A Multi-Year Descriptive Analysis of Drug Checking Data from 2021 to 2025	Brittany Okon	Leonardo Dominguez-Gomez, Yarelix Estrada, Izza Zaida, Sophia Reinicke, Jeffery Sauer, Hannah Helmy	NYC Department of Health and Mental Hygiene	

Background: In New York City (NYC), fentanyl is the most commonly involved substance in drug overdose deaths, with co-involvement of sedatives like xylazine increasing in recent years. Drug checking is a harm reduction intervention that allows individuals to identify substances present in their drugs and facilitates monitoring of emerging trends in the unregulated drug supply. In partnership with syringe service programs, the NYC Health Department launched drug checking services in November 2021.

Methods: We utilized NYC Health Department drug checking data to describe temporal trends and changes in NYC's unregulated opioid supply for the period November 2021 through December 2025. The analysis was restricted to samples sold as opioids that had secondary laboratory testing results available.

Results: A total of n = 1418 samples were available for analysis. The total number of substances observed per opioid sample increased over time and ranged from 1 to 22; the average increased from 5.72 (standard deviation 2.73) in 2022 to 7.00 (standard deviation 3.95) in 2025. In both 2022 and 2025, fentanyl was detected in at least 90% of samples, whereas heroin was detected in 70% of samples in 2022 and 50% in 2025. While heroin and fentanyl were the most common combination of substances in 2022, by 2025 other substances, such as lidocaine and the industrial chemical, BTMPS, more commonly appeared alongside fentanyl. The prevalence of xylazine increased and then stabilized during the analysis period, while medetomidine, an emerging sedative, was identified in 2024 and remained prevalent through 2025. These sedatives were almost always observed alongside fentanyl.

Conclusion: Findings indicate that both the diversity and composition of the unregulated opioid supply varied over time. While the prevalence of fentanyl remained high throughout the study period, the substances most commonly co-observed alongside fentanyl changed from 2022 to 2025.

Childhood under surveillance: Youth exposure to aggressive policing in New York City, 2006-2024	Bruce Ramphal	Icahn School of Medicine at Mount Sinai
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Background: Aggressive law enforcement exposure is linked to adverse physical, mental, and educational outcomes, especially for Black and Latinx youth who face concentrated structural disadvantage and police surveillance. The NYPD's stop and frisk practices were deemed unconstitutional in the 2013 case *Floyd v. City of New York*, yet federal monitor reports suggest only partial compliance with mandated reforms. A public health-oriented assessment of these practices is needed. This study characterizes spatial, temporal, racial, and gender patterns of NYPD stops, frisks, and use of force against children over nearly two decades.

Methods: We harmonized NYPD Stop, Question, and Frisk records from 2005-2024 (N = 4.3 million stops) across legacy paper and electronic systems. Children were defined as individuals aged 10-21 years at the time of stop. Outcomes included annual stop counts, frisk rates, and a composite force indicator capturing any documented physical force. We described trends by race/ethnicity, sex, and precinct, with particular attention to changes surrounding Floyd. We also generated precinct-level spatial visualizations, including hotspots of overall and racialized youth stops, to inform public health and social justice messaging.

Results From 2006-2024, nearly one in three pedestrian stops involved children, even as total stop volume declined by more than 90% after Floyd. Black children consistently represented over half of child stops, far exceeding their share of the city population, and their proportion increased in the post-Floyd era. Pre-Floyd, roughly 50-61% of child stops involved a frisk and 20-30% escalated to force; post-Floyd, these ranges were approximately 55-70% and 20-35%, respectively. Racial disparities in risk for frisk or force persisted across high and low volume eras, with Black children experiencing the highest risks. Patterns were similar for girls and boys, with higher absolute levels among boys.

Conclusions Judicial intervention sharply reduced NYPD stop volume but left substantial racialized disparities in youth exposure to aggressive policing.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Sex Disparities in Transplant Waitlisting-Differences by Race, Ethnicity, and Age	Chenxi Gao	Reem E. Hamoda, MD, MPH; Yiting Li, MPH; Gayathri Menon, MHS; Ilana Mittleman, MPH; Rasheeda K. Hall, MD; Dorry L. Segev, MD, PhD; Milda R. Saunders, MD, MPH; Mara A. McAdams-DeMarco, PhD	NYU Grossman School of Medicine	

Purpose Despite efforts to improve equity, sex disparities persist in access to kidney transplantation (KT). Notably, sex disparities in waitlisting may vary across race and ethnicity and age groups, but these disparities are not well characterized. Thus, we quantified access to waitlisting by sex, race and ethnicity, and age. **Methods** We used data from the US Renal Data System to identify end-stage kidney disease (ESKD) patients (>18 years) who initiated dialysis between 2015-2020. We quantified the associations between sex (female/male) and first-time KT waitlisting using competing risk models, overall and by race and ethnicity (Non-Hispanic White, Non-Hispanic Black, Non-Hispanic Asian, or Hispanic), and age at dialysis initiation. **Results** Among 681,007 adults with ESKD, 41.7% were female, 51.5% were White, 26.4% were Black, 16.6% were Hispanic, and 5.4% were Asian. The median age at ESKD was 65.0 years (interquartile range: 55.0-74.0). Across all racial and ethnic groups, female patients with ESKD were less likely to be waitlisted than males, and these sex disparities worsened with increasing age (all Pinteractions <0.001). Among White patients, females were less likely to be waitlisted than males, with disparities worsening by increasing age (18-39 years: aSHR=0.83, 95%CI: 0.78-0.87; ≥70 years: aSHR=0.62, 95%CI: 0.57-0.67); similar sex disparities were observed among Black patients (18-39 years: aSHR=0.87, 95%CI: 0.83-0.92; ≥70 years: aSHR=0.69, 95%CI: 0.60-0.79). Among Hispanic and Asian patients, there were no sex disparities among 18-39-year-old patients; however, older females were less likely to be waitlisted than older males (Hispanic ≥70 years: aSHR=0.54, 95%CI: 0.44-0.67; Asian ≥70 years: aSHR=0.56, 95%CI: 0.45-0.71). **Conclusions** Overall, females are less likely to be waitlisted across all racial and ethnic groups, with this disparity worsening with increasing age across each group. Addressing these gaps will require age-focused, targeted strategies and systematic monitoring of referral and waitlisting practices to ensure equitable access across the lifespan.

Associations between Water Consumption and Diet with Serum PFAS Levels in Men with Prostate Cancer: A Pilot Study	Chidinma Opara	Stefanie A. Joseph, Megan R. Shanahan, Uyai Ibanga, Saum Ghodoussipour, Thomas L. Jang, David M. Golombos, Judith M. Graber, Emily S. Barrett, Elisa V. Bandera, Hari S. Iyer	Other	Rutgers Cancer Institute
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Background: Water and food are important routes for per- and polyfluoroalkyl substances (PFAS) through packaging and the environment. PFAS exposure may negatively impact cancer survival, yet few studies have examined PFAS in cancer patients. We studied whether water consumption, filtration and dietary factors were associated with serum PFAS levels in men with prostate cancer. **Methods:** We recruited men treated for prostate cancer at the Rutgers Cancer Institute between February 2025 and January 2026. Eligibility criteria included age ≥40 years, New Jersey residence, on active surveillance or within 3-12 months of surgery or radiotherapy. Interviewers administered questionnaires to capture demographics, water filtration, and food (meat, seafood, plastic-wrapped cheeses and other products) known to have higher PFAS levels (high: >once/month, low: ≤once/month). Participants provided serum, which was tested for four PFAS by the New Jersey Department of Health. Geometric means (GM) and 95% confidence intervals (CI) for serum PFAS were calculated across dietary and drinking water groups. **Results:** This study included 63 men (median age: 63 years) who consumed (mean [SD]) 40.2 [30.5] oz of water daily. Men with high vs. low tea consumption had higher serum levels of nPFOS (GM) 2.52 ng/mL, 95% CI 1.82, 3.49; GM 1.78 ng/mL, 95% CI 1.15, 2.74) and PFHxS (GM 1.36 ng/mL, 95% CI 0.95, 1.94; GM 0.99 ng/mL, 95% CI 0.67, 1.47). Compared to non-users, men who used a filter had higher serum levels of PFHxS (GM 1.43 ng/mL 95% CI 1.13, 1.79; GM 0.84 ng/mL 95% CI 0.47, 1.48) and nPFOA (GM 1.59 ng/mL 95% CI 1.35, 1.87; GM 1.01 ng/mL 95% CI 0.67, 1.53). There were no associations with other foods. **Discussion:** Use of water filtration and tea consumption were associated with higher PFAS levels. Those with filters may have been aware of prior PFAS contamination, leading to this unexpected finding.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Contextualizing data and developing asset-based framing through Photovoice: Lessons from the East Harlem Food Voucher Program Photovoice Project	Christina Nieves	Adam Wohlman, Yorca Madera	NYC Department of Health and Mental Hygiene	

Background: Framing program evaluation data with community context is essential for understanding participants' lived experiences and the broader social and physical environment from which they come. Collecting and reporting solely quantitative data limits our understanding of communities and can reinforce harmful stereotypes that stigmatize populations. The East Harlem Food Voucher Program is an initiative of the Bureau of Harlem Neighborhood Health in the NYC Health Department that aims to improve household food access among East Harlem foreign-born residents. To better employ asset-based framing when describing this community and program population, the Bureau of Harlem Neighborhood Health gathered information directly from participants about their thoughts, feelings, and perspectives of their community through Photovoice. **Methods:** Photovoice is a community-based participatory research method that uses photos and narratives produced by community members to capture lived experiences and to promote critical dialogue and action. Former East Harlem Food Voucher Program participants participated in Photovoice and elected to investigate "What makes East Harlem a beautiful community?". Participants took photos then answered a set of pre-defined questions to craft a narrative caption for each photo. Participants reviewed all photos as a group and identified common themes. **Results:** Eight Photovoice participants collectively submitted 18 photos and identified the following themes: 1) East Harlem residents are hard workers; 2) Central Park is an essential community resource; 3) local organizations provide valued support to residents; 4) East Harlem is safe; 5) East Harlem is continuously improving; and 6) residents are proud of their community. **Conclusion:** Through Photovoice, participants revealed how they see their community, its assets, and its strengths. They introduced unique perspectives not otherwise represented in quantitative data. Photos and narratives will be used to provide community-centered, asset-based framing to program evaluation data, and to counter negative stereotypes about immigrant populations and the places they live.

Association Between Pain Severity During Radiation Therapy and Persistent Opioid Use in Head and Neck Cancer	Chun Sing Lam	Han-Wei Wu, Tayla Salz, Elizabeth Kantor, Jun J. Mao	Memorial Sloan Kettering Cancer Center
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Background: Pain during radiation therapy (RT) for head and neck cancer is common and often managed with opioids, and chronic pain is frequently reported after treatment. While prior studies described long-term opioid use after RT, the relationship between patient-reported pain during treatment and persistent opioid use remains unclear. **Methods:** We conducted a retrospective cohort study of adults (>18 years) with head and neck cancer who received RT between 2014 and 2023 at Memorial Sloan Kettering Cancer Center. Eligible patients had self-reported pain assessments during week 1-7 of RT. Pain severity was categorized as none (0), mild (1-3), moderate (4-6), or severe (7-10). The primary outcome was opioid use at 3 months post-RT; opioid use at 6 months was a secondary outcome. Multivariable Poisson regression with a log link estimated adjusted prevalence ratios (aPRs) for the association between pain severity during RT and post-RT opioid use. Pain severity was additionally modeled as an ordinal variable to assess for dose-response trends. **Results:** Among 1,929 eligible patients (mean age=63 years, 76% male), most reported moderate (36.8%) or severe (41.4%) pain during RT. At 3 months post-RT, opioid use occurred in 9.5% of patients with none/mild pain, 22% with moderate pain, and 30% with severe pain. Compared with none/mild pain, moderate and severe pain during RT were associated with higher likelihood of opioid use at 3 months (moderate: aPR=2.04, 95% CI=1.45-2.93; severe: aPR=2.72, 95% CI=1.96-3.89; p<0.001). At 6 months, severe pain remained significantly associated with opioid use (aPR=2.90, 95% CI=1.84-4.83; p<0.001). Dose-response relationships were observed at both time points (p-trend<0.001). **Conclusions:** Greater pain severity during RT is strongly associated with persistent opioid use following treatment among head and neck cancer patients, underscoring the importance of early pain assessment and timely intervention to reduce prolonged opioid exposure.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Mother-Infant Linkage to Better Estimate Infant Protection from RSV	Conner Jackson	Melanie Askari, Iris Cheng, Marisa Langdon-Embry, Alexa Riggs, Alexandra Ternier, Megan Tougher, Bernadette Weeks	NYC Department of Health and Mental Hygiene	
Background: Respiratory syncytial virus (RSV) is the leading cause of infant hospitalization in the United States. During the 2024-2025 RSV season, two immunizations provided infant protection: nirsevimab, a monoclonal antibody given to infants, and Abrysvo, a vaccine administered to pregnant persons at 32-36 weeks gestation. As protection can be conferred through administration of either product, we aimed to better estimate RSV coverage among infants by linking mothers and infants using New York City (NYC) Citywide Immunization Registry (CIR) and vital record data. Methods: Infants born during October 1, 2024-March 31, 2025, the 2024-2025 RSV immunization period, with a NYC vital record and address were included. To identify possible mother-infant pairs, birth mother's information from an infant's CIR record was linked to a mother's CIR record using a stand-alone deterministic matching algorithm based on a combination of fields including mother's name, date of birth, home address, email, and/or phone numbers. Once a mother-infant pair was linked, the mother's Abrysvo data was associated with the infant's record. Infant RSV protection was defined as the infant's receipt of nirsevimab or mother's receipt of Abrysvo during pregnancy. Results: There were 39,825 eligible infants born in NYC during the study period. The overall match rate for linking a mother's CIR record to an infant's CIR record was 74.3%. Differences in match rate by race and ethnicity were observed, ranging from 80.6% to 65.1% among Hispanic and White non-Hispanic infants, respectively. Among infants born during the 2024-2025 RSV administration period, RSV coverage due to nirsevimab alone was 30.2%. By linking mother-infant pairs to also account for protection due to Abrysvo, coverage increased to 47.0%. Discussion: In NYC, estimating RSV coverage with nirsevimab alone is largely incomplete. By leveraging existing data in immunization registries, we can generate coverage estimates that better reflect infant RSV protection.				

The Impact of Race-Neutral Versus Race-Specific Lung Function Equations on Disability Determination Among Emergency Responders	David Goldfarb	Madeline F. Cannon, Rachel Zeig-Owens, Jaeun Choi, Charles B. Hall, David W. Appel, Hillel W. Cohen, Michael D. Weiden, Krystal L. Cleven, Anna Nolan, David J. Prezant	Albert Einstein College of Medicine	
Background: Respiratory impairment evaluations for disability determinations rely on spirometry thresholds derived from predicted lung function values. As race-neutral reference equations replace race-specific equations, even small shifts in predicted FEV1 can meaningfully change who is classified as impaired and when impairment is identified. Our objective was to evaluate the impact of using race-neutral Global Lung Function Initiative (GLI-Global) equations versus race-specific Third National Health and Nutrition Examination Survey (NHANES-III) on impairment classification and timing of impairment identification among emergency responders. Methods: We evaluated 9,413 firefighters and emergency medical service providers with spirometry within two years of retirement (8,350 non-Hispanic White; 554 Hispanic; 509 non-Hispanic Black). FEV1 percent predicted and z-scores were calculated using NHANES-III and GLI-Global equations. Impairment was defined as FEV1<70% predicted and separately as FEV1 z-score<-2.5 (i.e., moderate to severe function). We compared impairment classifications at the exam closest to retirement. For time-to-event analyses (N=9,199), follow-up began 1/1/1998 and ended at first threshold crossing or censoring at the exam closest to retirement. Interval-censored Weibull proportional hazards models with frailty compared time to threshold crossing using GLI-Global vs. NHANES-III, stratified by race/ethnicity. Results: At retirement, the proportion of White and Hispanic responders with FEV1<70% predicted decreased when GLI-Global equations replaced NHANES-III equations (from 4.1% to 2.4% [White] and from 7.0% to 4.5% [Hispanic]). In contrast, the proportion of Black responders with FEV1<70% predicted doubled, from 6.3% to 12.8%. In time-to-event models, GLI-Global identified impairment later for White (HR=0.60; 95% CI=0.52-0.69) and Hispanic responders (HR=0.56; 95% CI=0.39-0.81), but earlier for Black responders (HR=2.59; 95% CI=1.83-3.66). Similar patterns were observed using z-scores. Discussion: Switching to race-neutral equations considerably changed impairment classification and timing of impairment identification, with differing effects across racial/ethnic groups. As race-neutral equations are implemented, disability determinations should be evaluated holistically in the context of clinical and work-function assessments.				

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Understanding the Effects of Immigrant Paradox in Child Developmental and Behavioral Health, from the 2023 NSCH Dataset	Denzel Edwards		Other	College of Integrated Health Sciences, University at Albany of New York(SUNY)

Background: Mental, emotional, developmental, and behavioral (MEDB) problems affect 22.1% of U.S children with short and long term social and health consequences. Prior research has documented and immigrant advantage in select child health outcomes despite socioeconomic disadvantage, but fewer studies have examined how generational status interacts with cumulative medical, social, and relational risks that shape child well-being. Methods: This cross-sectional study analyzed data from the 2023 National Survey of Children's Health (N= 55,162), including 55,162 children aged 6 to 17 years. Missing covariate data was addressed using multiple imputations by chained equations. Weighted, multivariable logistic regression was used to estimate the adjusted odds ratios (AOR) for neurobehavioral conditions across three generational subgroups, controlling for demographic, socioeconomic, and neighborhood support factors. A composite index capturing cumulative medical, social, and relational risk was examined as a moderator. Results: Compared with United States-born children, first-generation (AOR=0.68; 95% CI: 0.27-1.72) and second-generation children (AOR=0.62; 95% CI: 0.38-1.00) demonstrated lower odds of mental, emotional, developmental, and behavioral problems. In contrast, cumulative risk was strongly associated with adverse outcomes, with children classified as high risk experiencing substantially higher odds of these conditions (AOR=15.09; 95% CI: 13.24-17.20). No statistically significant interaction was observed between generational status and cumulative risk; however, the protective association of immigrant status was markedly attenuated among children exposed to elevated cumulative risk. Discussion: This study supports an immigrant advantage in child behavioral health while highlighting the dominant influence of cumulative adversity. Integrating generational status with a multidimensional risk index offers a more nuanced and comprehensive assessment of intergenerational and cumulative risk effects, compared to previous immigration-based studies. Interventions that reduce medical, social, and relational burdens may benefit children facing elevated contextual risk.

Clinical and Epidemiologic Characteristics of Candida auris Cases in New Jersey (January 2022 - July 2025)	Diya Cherian	Rebecca Greeley, MPH	Columbia University Mailman School of Public Health
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Background: Candida auris is an emerging multidrug-resistant fungal pathogen associated with high mortality and rapid transmission in healthcare facilities. New Jersey has reported increasing C. auris cases, yet detailed information on patient characteristics is limited. Case report forms (CRFs) capture additional clinical and epidemiologic factors on C. auris cases. Methods: This analysis aims to describe demographic, clinical, and epidemiologic characteristics of C. auris cases with CRFs in New Jersey, and to compare risk factors between clinical and surveillance cases. 589 C. auris CRFs were submitted to the New Jersey Department of Health from January 2022 through July 2025. Demographics, medical conditions, healthcare services, indwelling devices, and antimicrobial exposures were summarized using descriptive statistics. Comparisons between clinical and surveillance cases were performed using Chi-square and Fisher's exact tests. Results: The median age for cases was 69 years (mean 66; range 21-102), and 60% were male. Comorbidities were common, including cardiovascular disease (62%), diabetes (33%), chronic wounds (29%), and chronic kidney disease (19%); 33% were non-ambulatory and 31% were ventilator dependent. Indwelling devices were frequent, with nearly two devices per case on average; the most common were abdominal feeding tubes (49%), tracheostomies (39%), and urinary catheters (28%). Clinical cases were more likely than surveillance cases to have bacteremia (23% vs 10%, $p<0.001$), sepsis (30% vs 19%, $p=0.03$), urinary catheters (47% vs 25%, $p<0.0001$), and exposure to antibiotics (85% vs 69%, $p=0.003$) and antifungals (42% vs 12%, $p<0.0001$). Surveillance cases were more often tracheostomy-dependent (41% vs 27%, $p=0.02$). Discussion: CRF data provide insights into the clinical and epidemiologic profile of C. auris cases in New Jersey. Clinical cases were specifically characterized by invasive infections, higher device burden, and greater antimicrobial exposure. These findings underscore the importance of both infection prevention and antimicrobial stewardship in controlling C. auris spread.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Sidewalk Access and Daily Physical Activity in Children With Asthma: A Cross-Sectional Analysis	Eileen Murray		CUNY Graduate School of Public Health	

Among children with asthma, obesity is associated with increased disease severity and poorer symptom control. Although the temporal relationship between asthma and obesity is debated, physical activity is a key preventive strategy for both conditions. However, children with asthma face multiple barriers to physical activity, including parental constraints, safety concerns, and neighborhood infrastructure. Neighborhood sidewalks and walking pathways may promote physical activity by reducing built environmental barriers. This study examined the association between self-reported neighborhood sidewalks and physical activity among children with asthma. A cross-sectional analysis was conducted in SAS Studio, and utilized 2023 data from the National Survey on Children's Health. The sample included 4336 children aged 5-18 years with asthma. The primary exposure was reported presence of sidewalks in the neighborhood. The outcome was reported daily physical activity. Multivariable logistic regression models estimated odds ratios (ORs) and 95% confidence intervals (CIs), adjusting for age group, sex, food or cash assistance (as a proxy for socioeconomic status), adverse childhood experiences (ACEs), neighborhood safety, and neighborhood detracting elements. Effect measure modification on the multiplicative scale was also assessed. Overall, 77.3% of participants reported neighborhood sidewalks/pathways. The crude model showed lower odds of physical activity among children with sidewalks (OR=0.76; 95% CI: 0.53-1.09). Adjusted models yielded similar non-significant findings. Stratified analyses suggested a stronger inverse association in unsafe neighborhoods (OR=0.25; 95% CI: 0.06-1.05), though confidence intervals were wide. Effect modification analyses were not statistically significant. Preliminary findings suggest no significant association between reported neighborhood sidewalks and physical activity among children with asthma. Wide confidence intervals indicate imprecision, and reliance on self-reported measures may have introduced misclassification. Socioeconomic status and proximity or quality of sidewalks were not directly measured. These findings suggest that infrastructure alone may be insufficient to promote activity among children with asthma.

Exposure to short-chain replacement PFAS perfluorobutane sulfonic acid (PFBS) in a New York City-based pregnancy cohort	Eleanor Medley	Duong Q. Nguyen, Anne Nigra, Amy Padula, Vittorio Albergamo, Akhgar Ghassabian, Linda G. Kahn, Leonardo Trasande, Whitney Cowell	NYU Grossman School of Medicine	
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Background: Perfluorobutane sulfonic acid (PFBS) is a short-chain per- or polyfluoroalkyl substance (PFAS) used as a replacement for the long-chain PFAS, perfluorooctane sulfonic acid (PFOS). Few epidemiologic studies in the US have measured PFBS, and little is known about its health implications. Objective: We measured prenatal concentrations of PFBS and 12 other PFAS in serum collected from 500 participants in the New York University Children's Health and the Environment Study between 2016-2019. Methods: We included seven PFAS with detection rates >50% in analyses. We examined descriptive statistics of PFAS concentrations and their correlations. We investigated associations of PFAS exposures with demographic characteristics, including location of residence, and conducted factor analyses to explore potential sources of exposure. Results: PFBS was detected at levels above the limit of quantification (0.025 ng/mL) in 95.8% of samples, and the median value was 0.40 ng/mL. This is significantly higher than serum PFBS concentrations reported in other US-based birth cohorts. PFBS concentrations were not correlated with any other PFAS, while these other PFAS were positively correlated with each other. Unlike other PFAS, PFBS concentrations were not associated with participant demographic characteristics, and there was no evidence for spatial clustering of PFBS across New York City. Conclusions: These results suggest there is rising exposure to short-chain replacement PFAS, exemplified by serum PFBS concentrations in a population of pregnant individuals in New York City. The changing PFAS exposure landscape warrants further investigation into the health effects of short-chain replacements, particularly in vulnerable populations.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Thinking outside the 'disengagement' box: an analysis of antiretroviral treatment noncontinuity in Co'te d'Ivoire	Elise Mara	Suzue Saito Eboi Ehui Adama S. Pongathi Staphania Kobravi-Deme Greet Vandebriel Hermann Brou Mary Ann Chiasson Andrea A. Howard William Reidy	Columbia University Mailman School of Public Health	

Background Researchers studying antiretroviral treatment (ART) adherence often focus on "disengagement": a lapse of >28 days following a missed prescription fill. This definition obscures brief intervals of treatment noncontinuity-"lateness"-of potential public health importance, since people with HIV can experience viral rebound in as little as two weeks. Using routinely collected data from Cote d'Ivoire, we examined noncontinuity patterns among recipients of care (ROC) enrolled on ART. **Methods** Enrollment records spanned 46 sites and five years (2017-2022). ROC aged ≥ 18 who had at least one year of follow-up and did not test negative or transfer out were included. We classified lapses >28 days as time spent disengaged and ≤ 28 days as time spent late. A week with at least one "disengaged" day was classified as "disengaged" for that ROC, otherwise "late" if it contained a "late" day, otherwise "engaged". We used latent class analysis to place ROC into classes based on their 52-week trajectories, determining the optimal number of classes through comparing Bayesian Information Criterion (BIC) values. Multinomial logistic regression was used to test associations between ROC characteristics and class membership. **Results** Among 6733 ROC, 69% were female and the median age was 39. Five classes were discovered: "1: early disengagement with return" (10%), "2: consistent adherence" (46%), "3: early disengagement without return" (11%), "4: consistent lateness" (25%), and "5: late disengagement" (9%). ROC aged ≥ 39 and those given >30 days of medication at outset had the highest odds of being in class 2 ($p < 0.05$). Compared to men, women had significantly increased odds of membership in classes 3 (OR=1.24) or 4 (OR=1.39). **Discussion** A quarter of the cohort exhibited a "consistent lateness" pattern with little disengagement; these ROC would appear predominantly adherent if only disengagement were examined. These findings demonstrate the need for more expansive definitions of noncontinuity.

A Latent Class Analysis Identifying the Association Between Coping Strategies and Burnout Among Faculty in the City University of New York (CUNY)	Elys Vasquez-Isca	Collette Brown, PhD, MPH Rose Saint Fleur- Calixte, PhD, PStat®	Other	Lehman College, CUNY
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Background: Burnout, an occupational syndrome that is specific to the workplace, is manifested by exhaustion, mental distancing from one's work and loss of productivity. The City University of New York (CUNY), the nation's largest urban public university system, serves a highly diverse student body, many of whom are first generation college students with significant unmet needs. Faculty frequently find themselves providing social support and mentorship in addition to managing heavy teaching loads, advancing their scholarly work, and handling personal obligations. While attending to these various demands, faculty face burnout. Faculty use various coping mechanisms and support systems as protective factors against burnout; however, this relationship is not well understood. **Objective:** The objective of the study was to determine the association between coping strategies, support systems and burnout using the Maslach Burnout Inventory (MBI). **Methodology:** A total of 153 CUNY faculty participated in the study from fall 2023 to fall 2024. Data were collected using an online snowball sample. A Latent Class Analysis (LCA) was performed to identify subgroups of individuals based on their coping behaviors such as physical self-care, psychological/mindfulness, seeking social support, and the three domains of the MBI using SAS 9.4®. **Results:** Approximately 95% of faculty used positive coping mechanisms and support systems. Among the faculty, approximately 32% had high emotional exhaustion, 13% had high depersonalization, and 35% had low personal accomplishments. There was a statistically significant positive relationship between social support and personal accomplishment ($p < 0.0001$). No significant relationship exists between physical self-care and psychological/mindfulness and emotional exhaustion and depersonalization. **Conclusion:** The study shows that more research is needed to understand the complexity of educators who simultaneously experience high emotional exhaustion and depersonalization while maintaining a high-level professional accomplishment. Universities should provide services that emphasize mental wellness.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Eliciting and amplifying community perspectives on public drug use and overdose in Midtown-West Manhattan, 2025	Emily Norquist	Grace Linderholm; Sarah Koberna; Stacy Christopher; Andrew Trinidad; Victoria Montero; Hannah Helmy; Alice Welch	NYC Department of Health and Mental Hygiene	

Background: In 2023, 20% of New York City's drug overdose deaths occurred in public settings, with the highest number happening in Manhattan's Midtown-West neighborhoods. This study uses surveys and stakeholder interviews to explore factors contributing to public overdose deaths around Midtown-West and amplifies community-supported interventions. **Methods:** We conducted 30 surveys and 6 stakeholder interviews. Survey respondents included individuals aged 18 or older who use drugs and/or witnessed and/or experienced an overdose. Interviews were conducted with program staff serving people who use drugs and unstably housed individuals in Midtown-West. **Results:** Among survey respondents, the most commonly used drugs were opioids (60%), methamphetamine (50%), cannabis (50%), alcohol (40%), and K2 (40%). Half of respondents reported injecting drugs and 93% reported using alone. Most respondents (73%) reported unstable housing. Additionally, 83% had witnessed an overdose, most frequently (80%) on the streets. Stakeholder interviews included outreach, treatment, housing, legal, and harm reduction providers. Providers identified barriers to service provision, including poor coordination between organizations, contract competition, and funding and staffing shortages. Furthermore, community pushback, restrictive policies, and security/law enforcement complicate engagements. Qualitative analyses suggest that public overdose and use in the area may be due to a lack of alternate consumption spaces. Participants cited converging factors, including transportation, drug access, financial opportunities, service availability, and anonymity, that draw people who use drugs to Midtown-West. Participants described a need for expanded harm reduction services, including an overdose prevention center and drug-checking services, to mitigate the volatile drug supply. **Discussion:** Results support ongoing investment in organizational collaborations, community and stakeholder harm reduction education, low-barrier housing, and expanded mental health services. An overdose prevention center in Midtown-West could ameliorate public drug use and overdose in the area by providing a safer use space co-located with health and social services.

Hospital-Based Detention of Patients With Tuberculosis in New York City, 2011-2025	Emily Louise Able	Alice Easton, Jannet Tobon Ramos, Diana Nilsen	NYC Department of Health and Mental Hygiene	
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BACKGROUND NYC Health Code allows for hospital-based detention of people with tuberculosis who pose a public health risk when less restrictive management of treatment has failed. It also, along with New York State Sanitary Code, authorizes the use of Notices of Obligation to Isolate (NOIs) to temporarily prevent some hospital inpatients with suspected or confirmed tuberculosis from leaving prior to evaluation completion. **DESIGN/METHODS** Data on patients under detention (2011-2025) and NOIs issued (2023-2025) were collected from NYC Health Department records. Descriptive analyses were conducted to assess the use of these regulatory measures and their outcomes. **RESULTS** From 2011 to 2025, 89 (1%) of the 9,182 patients diagnosed with tuberculosis in NYC were detained in a hospital-based setting. Among these, 42 (47%) completed TB treatment while detained, two (2%) died, 45 (51%) were released prior to completion of treatment. Among patients released prior to completion, 41 (93%) completed outpatient treatment and two remain in outpatient treatment. Since 2024, two patients released prior to treatment completion are lost to care. Between 2023 and 2025, 79 individuals were issued a total of 88 NOIs. One patient received four NOIs and six patients received two NOIs. Of these, 16 patients (20%) were subsequently served detention orders while hospitalized. The remaining 63 patients were discharged without a detention order. Thirty-eight (62%) patients discharged without a detention order were confirmed to have active tuberculosis; of those, an additional 16 (42%) were issued detention orders during treatment. **CONCLUSION** The rare use of detention orders typically leads to successful completion of treatment; however, recent loss to care of three patients released from detention prior to treatment completion highlights challenges in ensuring treatment completion. The use of NOIs has been instrumental in temporarily preventing patient elopement, but further efforts are needed to strengthen long-term outpatient treatment adherence and minimize the need for detention.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Cannabis Retail Landscape in New York City (NYC): Findings from a Secret Shopper Survey	Fabiha Rahman	Fabiha Rahman, Haven Rosner, Chunyao Liu, Susan Chandraganti, Shonette Richmond, Yukiko Washio, Danielle Ompad	NYU School of Global Public Health	

Objective: We aim to analyze the cannabis retail landscape in NYC by identifying potential risk factors that increase access/exposure and protective practices (e.g., ID checks, age-restriction signage, license display) in licensed cannabis dispensaries (LCD) and hemp-licensed stores (HLS). **Methods:** We conducted cross-sectional secret-shopper surveys at LCD and HLS in NYC. We summarized license and product displays, product availability, sales of other products, and other business practices. **Results:** We have visited 100 LCD and 64 HLS. Among LCD, 16.0% did not display their licenses, and 26.2% had cannabis products visible from outside. 5.0% of LCD did not check IDs for entry or purchase. Most LCD carried pre-rolled joints (99.0%), THC vapes (94.0%), flower (96.0%), sweet edibles (96%), concentrates and tinctures (89.0%), infused pre-rolls and other edibles (86.0% each), topicals (77.0%), pre-rolled blunts (57.0%), and kief/moonrocks (60.0%). Thirty-five (21.3%) sold edibles exceeding 100mg THC per package. Only 8 (4.9%) HLS sold THC products. 89.0% displayed age restrictions (67.1% LCD, 32.9% HLS; $p<0.001$), 22.38% warned of cannabis risks (30.85% LCD, 6.12% HLS; $p=0.001$), and 29.66% highlighted benefits (41.67% LCD, 6.12% HLS; $p<0.001$). Most (89.6%) offered price promotions (98.0% LCD, 76.6% HLS; $p<0.001$). Few LCD (4.1%) sold other substances (e.g., kratom, kava), but 57.1% of HLS did ($p<0.001$). **Conclusions:** Findings highlight both risks and protections within the cannabis retail landscape. LCDs are highly regulated and generally compliant with most of these regulations. We saw a handful of lookalike edibles, which are problematic but seemingly rare. Some HLS are selling a variety of psychoactive substances, including delta-8 THC, THC-A, kratom, kava, and nitrous oxide. HLS may face less oversight and offer a broader range of unregulated substances.

Title: C-Reactive Protein as a Marker of Systemic Inflammation and Mortality Risk Among U.S. Adults With Peripheral Artery Disease: A Survey-Weighted Survival Analysis of NHANES 1999-2004

Fanah Hagos

NYU School of Global Public Health

Background: Peripheral artery disease (PAD) affects more than 8-12 million U.S. adults and is associated with markedly elevated cardiovascular mortality. Inflammation, iron metabolism, and thrombotic activity are central to atherosclerosis progression. Yet, nationally representative evidence linking inflammatory biomarkers to long-term mortality among adults with ABI-defined PAD remains limited, particularly in analyses that account for complex survey design and sex-specific heterogeneity. **Methods:** We analyzed adults aged ≥ 40 years with PAD (ankle-brachial index ≤ 0.90) from the National Health and Nutrition Examination Survey (NHANES) 1999-2004 linked to mortality follow-up through 2019. The primary exposure was log-transformed C-reactive protein (CRP), standardized per one standard deviation (SD). Secondary biomarkers included ferritin, white blood cell count (WBC), and platelets. Survey-weighted Cox proportional hazards models incorporated stratification, clustering, and ABI subsample examination weights-sequential models adjusted for demographics, socioeconomic factors, smoking, clinical comorbidities, and medication use. Effect modification by sex was evaluated using interaction terms. **Results:** Among 646 adults with PAD (nationally representative), 498 deaths occurred during follow-up (median 9.6 years). Higher CRP was associated with increased mortality in partially adjusted models and remained elevated but attenuated after full adjustment (hazard ratio [HR] 1.13 per 1 SD; 95% confidence interval [CI] 0.96-1.33). WBC showed modest positive associations, whereas platelets were not. Ferritin demonstrated inconsistent associations in sensitivity analyses restricted to earlier survey cycles. Kaplan-Meier curves suggested modest survival differences across inflammatory tertiles and lower survival among men. **Conclusions:** In this nationally representative cohort of U.S. adults with PAD, systemic inflammatory burden-particularly CRP-was associated with mortality risk, although associations attenuated after comprehensive adjustment. These findings underscore the complex role of inflammation in PAD prognosis and highlight the importance of incorporating complex survey methods in population-based survival analyses.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Experiences of Discrimination and Psychological Distress: Insights from the 2022 NYC Social Determinants of Health Survey	Fatoumata Diallo	Jianyu Tong Lauren J. Shiman	NYC Department of Health and Mental Hygiene	

BACKGROUND: Serious psychological distress (SPD) is a public health concern in New York City (NYC) with a persistent burden placed on communities experiencing social and structural inequities. Experiences of discrimination are increasingly recognized as social stressors associated with mental health. Understanding how discrimination relates to SPD in NYC is essential for developing equitable public health policies and interventions. **METHODS:** We conducted a secondary analysis of the 2022 NYC Social Determinants of Health (SDH) Survey, a cross-sectional survey of a probability-based sample of adult New Yorkers assessing social factors shaping health. Discrimination was measured across five types: race/ethnicity, gender, country of birth, disability, and other characteristics. Measures captured discrimination type, and timing (current, lifetime, both). Psychological distress was assessed using the Kessler-6 scale, dichotomized to indicate SPD at a score of 13 or higher. Weighted crude and logistic regression models estimated associations between discrimination and SPD, adjusting for age, race/ethnicity, gender identity, country of birth, education, sexual orientation and neighborhood poverty. **RESULTS:** Nearly 75% of respondents reported a discrimination experience. More than one-third (32%) of respondents reported experiencing ≥3 distinct types of discrimination. A clear dose-response pattern emerged: SPD increased as distinct types of discrimination experienced increased. Individuals reporting ≥3 types had nearly twice the prevalence of SPD (20%) compared to those with 1 type (11%). Adults reporting ≥3 types had the highest odds of reporting SPD compared to those who didn't report any discrimination experiences (aOR:3.38, p-value: 0.004). Respondents reporting both current and lifetime discrimination had the highest odds of reporting SPD compared to those who didn't report any discrimination (aOR:4.33, p-value: <0.001). **DISCUSSION:** Findings underscore the cumulative and intersectional burden of marginalized identities on adult psychological distress. These findings highlight the need for public health strategies that address both interpersonal and structural drivers of discrimination, emphasizing intersectional experiences.

Metabolomics Underlying a Continuous Metabolic Risk Score among Children	Fei Zhan	Dr. Ellen C. Francis	Rutgers School of Public Health	
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Objective: Maternal metabolic conditions during pregnancy may program offspring cardiometabolic health; however, underlying mechanisms remain unclear. This study aimed to identify metabolomic signatures associated with cardiometabolic risk, measured as a continuous metabolic syndrome (MetS) score, among offspring in early childhood. **Methods:** We included 327 offspring from the Colorado Healthy Start study. At four years of age, offspring fasting serum was collected and untargeted metabolomics was conducted via UHPLC-MS. A continuous MetS score was calculated by standardizing five components (waist circumference, triglycerides, HDL-cholesterol, fasting glucose, systolic blood pressure) to z-scores and averaging the standardized values. Linear regression models identified metabolomic features associated with the continuous MetS z-score, adjusting for child age, sex, race/ethnicity, maternal age, race/ethnicity, pre-pregnancy BMI, and gestational diabetes. False discovery rate (FDR) correction was applied using the Benjamini-Hochberg method. Results were used as input to the mummichog algorithm for functional pathway enrichment using KEGG and Biocyc databases. **Results:** Of 327 offspring, 318 had sufficient data for MetS z-score calculation (at least 3 components), of whom 4 (1.26%) met the MetS-like definition. The mean (SD) MetS z-score was -0.004 (0.50). Among 3,873 metabolomic features analyzed, 401 fasting serum metabolomic features were significantly associated with higher MetS z-score (FDR<0.05), with the majority (83%) demonstrating inverse associations. Notable differences were observed in metabolites related to energy and substrate utilization during fasting, including citric acid and multiple dicarboxylic acids (3-hydroxydecanedioic, sebacic, dodecanedioic, and tetradecanedioic acids). We also observed differences in lipid-related metabolites, including docosahexaenoic acid, docosapentaenoic acid, and several glycerophospholipids, as well as markers of nitric oxide transport such as S-nitrosoglutathione. **Conclusions:** These findings suggest that higher MetS z-scores in early childhood are associated with a distinct fasting metabolic phenotype, characterized by general differences in energy homeostasis, lipid handling, and redox status. Future studies examining gestational determinants of MetS development are warranted.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Exploration of Social Ecological Factors Affecting Motor Vehicle Crash-Occupant Injuries Among Black and Hispanic Communities in Massachusetts	Franchesca Molina		Other	Massachusetts Department of Public Health

Background: Motor vehicle crash-occupant injuries are a leading cause of injury deaths in the United States, and Black and Hispanic communities are disproportionately affected. Several studies have assessed risk and protective factors, but none have explored the interplay between multi-layered influences that affect motor vehicle occupant injury or death risk in these communities. To fill this gap, we conducted focus groups with Black and Hispanic Massachusetts residents to seek their perspectives on these influences. **Methods:** We conducted nine in-person focus groups around Massachusetts. Participants were mainly recruited by six community-based organizations that primarily serve Black and Hispanic communities. Focus groups were 90 minutes long, semi-structured, and activity based. Participants described experienced or witnessed factors within four main social ecological levels (i.e., individual, relationship, community, and societal) that affect motor vehicle occupants' risk of injury or death in a crash. Focus groups were audio-recorded and transcribed. We conducted thematic analysis using NVivo. **Results:** There were 77 adult participants in the focus groups, of which 47% were non-Hispanic Black and 45% were Hispanic. We identified 12 key themes representing factors affecting motor vehicle occupant injuries within Black and Hispanic communities. Half of the themes were related to societal-level factors, particularly United States culture, racism, and classism. These factors influenced many themes in lower social ecological levels, such as community resource availability and limited driving skills and risk perception. Recommendations to mitigate these injury disparities addressed factors across social ecological levels, including driver's education access and quality, and the impact of institutional and structural racism. **Discussion:** This study helps us understand the spectrum of social ecological factors that may contribute to motor vehicle occupant injury disparities in Black and Hispanic communities. The resulting recommendations provide state, local, and community organizations with a broad range of potential strategies to reduce these disparities.

Modifiable Neighborhood Factors and Dementia Diagnosis among Older Adults with ESKD	Gayathri Menon	Byoungjun Kim, Nidhi Ghildayal, Babak J. Orandi, Syed Ali Husain, Dorry L. Segev, Mara A. McAdams-DeMarco	NYU Grossman School of Medicine
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Introduction: Neighborhoods can shape cognitive health through exposure to socioeconomic and environmental. Older adults with end-stage kidney disease (ESKD) have an increased susceptibility to dementia due to dialysis-dependance and a higher comorbidity burden relative to community-dwelling older adults. We therefore quantified the associations between modifiable residential neighborhood socioeconomic, built, and social environment factors and dementia diagnoses among older ESKD patients. **Methods:** We identified older (age $\geq$ 55 years) ESKD patients from the US Renal Data System (2010-2021) with Medicare as the primary insurer. Dementia diagnoses were identified using ICD-9/ICD-10 diagnosis codes from Medicare claims. Neighborhood factors were obtained from HRSA, CMS, National Neighborhood Data Archive, and Social Capital Atlas. We used proportional hazards models to quantify the adjusted hazard ratios (aHR) of dementia by tertiles of neighborhood factors, and quantified differences by urbanicity. **Results:** Among 455,835 older ESKD patients, the mean age was 70.4 years (standard deviation=8.7), 61% were White, 22% were Black, 11% were Hispanic/Latino, and 5% were Asian. After adjustment, older candidates living in neighborhoods characterized by higher unemployment (aHR=1.09, 95% confidence interval [CI]:1.07-1.11), lower health insurance coverage (aHR=1.08, 95%CI:1.06-1.10), lower physical activity (aHR=1.06, 95%CI:1.04-1.08), lower sleep duration (aHR=1.07, 95%CI:1.06-1.09), lower social support (aHR=1.07, 95%CI:1.05-1.09), fewer owner-occupied units (aHR=1.11, 95%CI:1.09-1.13), and fewer green spaces (aHR=1.13, 95%CI:1.11-1.15) were more likely to have a dementia diagnosis; notably, these associations differed by urbanicity (P<0.05). Notably, older ESKD patients living in neighborhoods characterized by lower routine checkups (aHR=0.96, 95%CI:0.94-0.98) and fewer grocery stores (aHR=0.95, 95%CI:0.93-0.97) had a lower likelihood of dementia diagnosis. **Conclusions:** Neighborhood socioeconomic deprivation may increase dementia risk among older ESKD patients, while increased social support and physical activity resources may be protective; however, the role of these neighborhood factors likely vary by urbanicity. Our findings identify potentially modifiable avenues of neighborhood-level interventions to preserve cognitive health among older ESKD patients.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Developing a Standard Operating Procedure to Support Implementation of Public Health Detailing	Gio Giovanelli	Teresa Lai, Andrea Martin, Carla L. Foster	NYC Department of Health and Mental Hygiene	

Background Public health detailing is an educational strategy for assessing and improving knowledge, attitudes, and skills that underpin clinical practice. However, variability in implementation can limit scalability, replicability, and efficiency within and across detailing programs. We developed a standard operating procedure to reduce variability and improve usability and sustainability using a multi-phase approach informed by implementation science. **Methods** We conducted a literature review of detailing best practices, reviewing 23 articles published between January 1990 and February 2025 and indexed in PubMed. The primary search term, "public health detailing," was refined with secondary terms including "education strategies" and "healthcare education." Next, we reviewed and synthesized protocols and materials from five detailing campaigns conducted by the NYC Health Department from 2012 through 2020, identifying common process steps. We then drafted a standard operating procedure and revised it based on program staff feedback. Descriptive measures included the number of campaigns reviewed, process steps identified, and standard operating procedure iterations. **Results** The literature indicates detailing can support knowledge change when core elements are maintained (actionable, evidence-based messages tailored to practice needs), but implementation is often constrained by program resources and provider time. Analysis of prior campaigns yielded a consistent sequence of nine process steps and recurring operational challenges related to workflow variation and role delineation. The final standard operating procedure identifies 12 roles, describes tasks for each process step, and provides a flowchart to guide execution. Qualitative findings across five program staff over six iterations indicated perceived improvements in clarity of expectations, confidence implementing detailing, and ease of onboarding new staff. **Discussion** Development of a standard operating procedure addresses a gap in detailing infrastructure by improving reproducibility within and across detailing programs. Adaptation of this implementation structure to local contexts can support adoption of evidence-based recommendations and enable future evaluation of fidelity and efficiency.

Private Time in Clinical Visits and Mental Health Counseling Among U.S. Adolescents Exposed to Bullying and Discrimination	Hanson Zhu	Other
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Bullying, cyberbullying, and discrimination are all linked to increasing risks of depression among adolescents. Despite this, many teens still do not receive the professional mental health attention they need. Looking at clinical guidelines, they suggest confidential "private times" between the teen and a professional healthcare provider to promote an environment in which teens can comfortably disclose sensitive concerns; however, the correlation with actual counseling remains unclear. To seek a deeper understanding, the 2022 National Health Interview Survey (NHIS) Sample Child file was used to conduct a cross-sectional analysis of adolescents aged 12-17 years who reported bullying, cyberbullying, or unfair treatment (unweighted n = 800). The main factor was private time with a provider at the most recent visit, and the outcome was receipt of counseling or therapy in the past 12 months. Survey-weighted logistic regression models estimated odds ratios (ORs) and 95% confidence intervals (CIs), first unadjusted, then adjusted them to test for age, sex, race/Hispanic origin, insurance status, parental education, and region. The weighted model estimates indicated that 53.8% of exposed teens reported private time, while 31.6% received counseling. On the other hand, the unadjusted model estimates indicated that private time was associated with higher odds of counseling (OR = 1.49; 95% CI: 0.84-1.78), suggesting that sociodemographic and access-related factors partially influence the crude association. Concluding both of these findings, it displays that while confidentiality practices may support help-seeking, health system and socioeconomic access factors, including insurance coverage and parental education, appear to partially explain the crude association.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Do Hyperinflammatory Markers Influence Steroid Initiation in ARDS? Insights from a Large Time-Stamped ICU Electronic Health Record	Haoyan Zhong	Elias N Baedorf Kassiss, Li-wei H Lehman, Zachary Shahn	CUNY Graduate School of Public Health	

Background: Acute respiratory distress syndrome (ARDS) is a life-threatening condition in which corticosteroids may benefit selected patients, though practice varies and inappropriate use carries risks. It remains unclear whether clinicians rely on a patient's hyperinflammatory status to guide steroid therapy. Using a recently published algorithm that calculates a patient's inflammatory status, we aimed to determine whether a hyperinflammatory probability score adds predictive value for steroid initiation beyond established illness-severity scores. **Method:** We used the Medical Information Mart for Intensive Care IV (MIMIC-IV) database to identify adult patients who met ARDS criteria on the day of ICU admission at Beth Israel Deaconess Medical Center (BIDMC; Boston, MA, USA) between 2008 and 2019 and had no prior steroid use during the hospitalization. Three random forest models were developed: (1) a PaO₂/FiO₂-only model reflecting guideline recommendations for early moderate-to-severe ARDS, (2) a severity-only model including APS III, OASIS, and SOFA, and (3) a combined model incorporating severity measures and the hyperinflammatory probability score. Model development and hyperparameter tuning were performed within a nested cross-validation framework. Model performances were compared using AUC, Brier score and calibration. **Results:** The PaO₂/FiO₂-only model was outperformed by the illness severity scores model (?AUC=?-0.05, 95% CI -0.08-0.03; p?<?0.001). Compared with the severity-only model, inclusion of the hyperinflammatory probability score did not show a statistically significant improvement in discrimination (?AUC=?0.001, 95% CI -0.01-0.01; p=?0.908). **Discussion:** Severity-based models better capture clinician steroid initiation patterns than PaO₂/FiO₂ alone, while the addition of the hyperinflammatory probability score provided no meaningful incremental discrimination. This may indicate that clinicians are not using inflammation distinct from general sickness for steroid initiation decisions in ARDS.

Using Machine Learning to Identify Systematic Nonresponse to Sexual Identity Questions in Adolescent Health Surveillance	Haoyun Ye	Rinky Botleroo, Chanapong Rojanaworarit	Hofstra University, School of Health Sciences, Population Health	
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Background: Accurate measurement of sexual identity in adolescent health surveillance is essential for identifying disparities and guiding equity-focused interventions. However, item nonresponse to sexual identity questions may introduce bias if missingness is systematic. We evaluated the extent and predictors of nonresponse to the sexual identity item in a recent national school-based health survey and compared the performance of multiple machine learning approaches for identifying students at risk of nonresponse. **Methods:** We analyzed data from 20,103 high school students participating in the 2023 Youth Risk Behavior Surveillance System. The outcome was nonresponse to the sexual identity question. Thirty-two predictors spanning demographic characteristics, school safety experiences, substance use, and sexual behaviors were included. Seven supervised machine learning models were trained using survey weights and cost-sensitive learning to address class imbalance. Data were split into training (70%) and testing (30%) sets with ten-fold cross-validation. Model performance was evaluated using F1 score, area under the receiver operating characteristic curve, and area under the precision-recall curve. Sensitivity analyses assessed the contribution of response patterns to other survey items. **Results:** Overall, 10.0% of students did not respond to the sexual identity question. Nonresponse was more frequent among ninth-grade students and among American Indian or Alaska Native, Native Hawaiian or Pacific Islander, and non-Hispanic multiracial youth. Among the seven models, the random forest demonstrated the most stable performance in the testing data (F1 score 76.5; area under the receiver operating characteristic curve 91.5). Predictive performance declined substantially when response indicators for other sensitive questions were excluded, suggesting that nonresponse clustered across survey items. **Discussion:** Nonresponse to sexual identity questions was non-random and concentrated among socially marginalized groups. Predictive models largely captured broader response behaviors rather than underlying demographic risk factors. Improving confidentiality protections and culturally responsive survey design may be necessary to reduce systematic missingness and strengthen equity in adolescent health surveillance.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Brominated flame retardant and non-fasting serum lipid levels among volunteer firefighters in New Jersey	Heather Butler		Rutgers School of Public Health	
Background: Polybrominated diphenyl ethers (PBDEs) and polybrominated biphenyls (PBBs) are legacy flame retardants linked to adverse health outcomes, such as altered blood lipid concentrations, a known risk factor for cardiovascular disease. Occupational exposure to flame retardants is of particular concern for volunteer firefighters, a group that remains understudied in public health research and are at increased risk for sudden cardiac death. The present study aimed to evaluate the association between serum flame retardant concentrations and lipid profiles within a population of volunteer firefighters. Methods: In this cross-sectional pilot study, members of a suburban volunteer fire department were recruited as part of the New Jersey Firefighter Cancer Assessment and Prevention Study. In 2019, participants provided non-fasting serum samples and completed a survey adapted from the U.S. Firefighter Cancer Cohort Study to capture demographic and occupational history. Serum analysis for flame retardant and lipid levels was conducted at the New Jersey Department of Health Public Health and Environmental Laboratories. Flame retardant measures below the limit of quantification were imputed prior to total lipid adjustment. Results: Participants (n=134) were predominantly male (94.8%) and Non-Hispanic White (89.6%), with a mean age of 46.5 years. Regarding health status, most participants (85.1%) had overweight or obesity, and a majority (72.4%) reported being never-smokers. On average, participants had extensive firefighting experience (mean: 22.1 years), and most participants (82.1%) reported never working as career firefighters. Six flame retardant congeners (PBDE-28, PBDE-47, PBDE-99, PBDE-100, PBDE-153, PBB-153) were detected in >75% of serum samples, with geometric mean concentrations falling between 0.72 and 5.55 ng/g lipid. Discussion: These preliminary findings describe serum concentrations of flame retardants among volunteer firefighters indicate a need for targeted biomonitoring. Future analyses using multiple linear regression will be presented to assess associations between flame retardant exposure and non-fasting serum lipid levels.				

Residential Neighborhood Social Capital, Cohesion, and Access to Live Donor Kidney Transplantation	Hrishikesh Sathyamoorthy	Aprajita Mattoo, Gayathri Menon, Byoungjun Kim, Babak J. Orandi, Syed Ali Husain, Dorry L. Segev, Mara A. McAdams-DeMarco	NYU Grossman School of Medicine	
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Background. Neighborhood social capital, the value derived from social networks and interpersonal relationships, may influence access to live-donor kidney transplantation (LDKT) by shaping social support and donor outreach. However, structural inequities may limit these benefits, particularly for minoritized populations. We therefore examined the associations between neighborhood social capital and LDKT, and quantified differences in the aforementioned associations by race and ethnicity. Methods. We identified adult candidates (age $\geq$ 18y) listed for their first kidney transplant (KT) from the United States Renal Data System (2015-2023). ZIP-code level measures of social capital-social fragmentation and civil disengagement-from the Social Capital Atlas were matched to candidates' residential ZIP code at listing and split into tertiles. We used Cox proportional hazards models to quantify adjusted hazard ratios (aHR) of LDKT after listing by tertiles of social capital measures. Interaction terms and Wald tests quantified differences by race and ethnicity. Results. Among 183,420 adult KT candidates, those in high-fragmentation neighborhoods were more likely to be Hispanic (High:32.0%; Low:9.0%), while those in high-disengagement neighborhoods were more likely to be Black (High:38.5%; Low:16.7%). After adjustment, residence in high-fragmentation (aHR=1.07, 95%CI:1.01-1.14) neighborhoods was associated with higher LDKT access. However, minoritized candidates living in high-fragmentation neighborhoods had significantly lower LDKT access than White candidates in low-fragmentation neighborhoods (Black:aHR=0.41, 95%CI:0.38-0.44; Hispanic:aHR=0.80, 95%CI:0.75-0.85; Asian:aHR=0.56, 95%CI:0.50-0.63; Pinteraction<0.001). Residence in high-disengagement (aHR=0.84, 95%CI:0.81-0.88) neighborhoods was associated with lower LDKT access. Notably, candidates of all racial and ethnic groups living in high-disengagement neighborhoods had significantly lower LDKT access relative to White candidates in low-disengagement neighborhoods (White:aHR=0.85, 95%CI:0.81-0.91; Black:aHR=0.31, 95%CI:0.29-0.33; Hispanic:aHR=0.63, 95%CI:0.59-0.67; Asian:aHR=0.47, 95%CI:0.42-0.52; Pinteraction<0.001). Discussion. Limited social capital in residential neighborhoods is associated with lower LDKT access, particularly among minoritized candidates. Identifying candidates in low social capital neighborhoods may help transplant centers target structured donor outreach interventions to improve equitable access to LDKT.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
When Social Ties Become Risky: Neighborhood Social Cohesion and Alcohol Use Patterns During the COVID-19 Pandemic	Hunter Grogan	Zachary Mannes	Columbia University Mailman School of Public Health	

Background: The United States is experiencing coinciding increases in risky alcohol use and loneliness. Social cohesion, a marker of social engagement protective against loneliness, may be associated with risky drinking. This study examined the relationship between neighborhood-level social cohesion and risky alcohol use in New York City during the COVID-19 pandemic. Methods: We leveraged the New York City Community Health Survey, a cross-sectional telephone survey of New York City residents aged 18 and older living in non-group housing from March to December 2020 (N=7,505). To examine the association between social cohesion, a Likert scale item ranging from five to twenty with past 30-day heavy (>1 or >2 standard alcoholic beverages daily for women and men respectively during the prior 30-days), and binge (>4 or >5 drinks during one occasion for men and women respectively in the prior 30 days) alcohol use, and both heavy and binge drinking, we used multinomial logistic regression adjusting for sociodemographic characteristics, functioning, cigarette smoking, and mental health symptoms, from which odds ratios and 95% confidence intervals (CI) were derived. Results: Approximately 12.5% and 1.7% of our sample reported binge or heavy alcohol use, respectively, and 4.9% engaged in both binge and heavy drinking. Every standard deviation increase in the social cohesion score was associated with 1.25 (95% CI: 1.05, 1.50) times greater odds of engaging in both heavy and binge drinking compared with non-drinkers. Conclusion: Increased social cohesion was associated with a greater likelihood of engaging in both binge and heavy drinking. Our findings underscore the need to consider how certain social dynamics may inadvertently facilitate unhealthy drinking behavior and investigate evidence-based interventions for promoting social cohesion without the use of alcohol.

Bridging Aging and Kidney Disease Research: A Harmonized Dataset Resource	Ilana Mittleman	Nidhi Ghildayal, NYU Megan Huisingh-Scheetz, University of Chicago	NYU Grossman School of Medicine
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Background Approximately 33% of older adults (>65 years) have chronic kidney disease (CKD). CKD and aging physiology have a bidirectional relationship, each accelerating decline in the other; yet, the underlying mechanisms of this relationship are poorly understood. The scarcity of datasets with both nephrology and aging-related measures is a major research barrier in this field. To accelerate geriatric nephrology research, we developed a harmonization table of datasets that include both geriatric and nephrology measures and adults with CKD to enable cross-dataset comparisons and analyses. Methods The Measurement Core of the Kidney Disease Aging Research Collaborative (KDARC) identified publicly available nephrology studies with aging measures and aging studies with nephrology measures by combining investigators' dataset-specific expertise with a broad review of national and international cohorts and administrative databases. For each dataset, we abstracted data access procedures, population characteristics, nephrology variables (e.g., CKD prevalence, renal function biomarkers), and geriatric variables (e.g., cognition, depression, disability) to create a harmonized table. Results We identified 18 datasets: 10 community-dwelling cohorts, 5 nephrology-specific cohorts, and 3 nephrology-focused administrative datasets. Fourteen datasets are available via online account creation and/or agreements; four require principal investigator approval and data use agreements. Among the community-dwelling cohort studies reporting CKD prevalence, estimates ranged from 2.6%-28%. All community-dwelling and nephrology-specific cohorts (n=15) include measures of cognition and depression. Measures of disability were included in 9 (90%) community-dwelling cohorts, 3 (60%) nephrology-specific cohorts, and 2 (67%) nephrology administrative datasets. Conclusion The KDARC data harmonization table is a practical toolbox for investigators conducting geriatric nephrology research, highlighting the representation of older adults and CKD patients in studies. The table streamlines dataset selection, variable identification, and cross-study comparisons. It is freely available on the KDARC website, and we encourage researchers to use and cite this resource to accelerate rigorous, collaborative kidney disease and aging research.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Analysis and Impact of Wellness Programs on NYC Health Employees	Isha Bapat	Jermey Taylor	NYC Department of Health and Mental Hygiene	

Background The NYC Health Department's Worksite Wellness Program fosters a healthy, thriving workforce by addressing employees' holistic needs. From January 1, 2025, to December 31, 2025, the program focused on six key domains: mental health, physical activity, healthy eating, work-life balance, financial wellness, and preventative health. Worksite Wellness hosts a wide variety of programs, including workshops (e.g., self-care, stress management), fitness classes (e.g., yoga, aerobics), health screenings (e.g., cancer, flu vaccines), massage therapy, onsite farm shares, and more. Programs typically last 15 minutes to an hour and are often held during lunch hours, with some resources available anytime (e.g., blood pressure kiosks, wellness suites). **Methods** To evaluate program effectiveness of our program, an annual employee wellness survey was conducted, with 2,009 responses (28% of the workforce). The survey included 30 questions across four sections: General Worksite Wellness Feedback and Employee Well-Being, Work-Life Experience, Open-Ended Responses, and Demographics. **Results** Program Reach:~559 programs engaged 12,381 attendees, including 3,634 unique participants. Employee Feedback:~73% of staff found the programs helpful in achieving wellness goals, up significantly from 43% in 2024. Overall Agency Health:~77% rated their health (both physical and mental) as excellent, very good, or good. Job Satisfaction:~82% expressed job satisfaction, up from 79% in 2023. Workplace Quality:~77% of employees would recommend the agency as a place to work. Work-Life Balance:~80% feel their work-life balance is suitable, remaining steady since 2024. Work-Related Stress:~70% of staff want to normalize and encourage taking time off for medical/mental health concerns. **Discussion** The Worksite Wellness Program demonstrated significant positive impacts on employee well-being, job satisfaction, and workplace quality. Improvements in mental health and work-life balance highlight the value of hybrid work arrangements and targeted wellness initiatives. The annual survey provided actionable insights to refine future programming and address emerging needs.

Comparing the Risk of Hospitalization Within 3 Months Among Patients Receiving Chemoimmunotherapy Compared to Chemotherapy Only	Isha Patel	Ziyan Hong, MPH Dr. Benjamin Bates, MD	Rutgers School of Public Health	
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Background: Immune checkpoint inhibitors (ICIs) have transformed cancer treatment. ICIs are commonly combined with standard chemotherapy to improve the effectiveness of treating the cancer, yet these immunotherapies can also have serious adverse effects. As part of a larger study, our objective was to assess the risk of hospitalization within 90 days following initiation of ICIs plus chemotherapy (chemoimmunotherapy) compared to chemotherapy alone. **Methods:** Using electronic health record data in a large academic-community healthcare system in New Jersey, we created a retrospective cohort of cancer survivors to evaluate 90-day hospitalization following the initiation of chemoimmunotherapy compared to chemotherapy alone. Propensity scores for each treatment receipt were estimated using logistic regression, including age, sex, race, and cancer group. We performed 1:4 nearest neighbor propensity score matching (0.2-SD caliper) with exact matching on cancer type. Cox proportional hazards models stratified by matched sets were used to estimate the effect of treatment on 90-day hospitalization. **Results:** Among 250 patients matched 1:4 of chemoimmunotherapy to chemotherapy, the mean age was 63.7 years and 68.0% were female. The distribution of cancers was 36% breast, 20% kidney, 18% lung, 14% ill-defined site, and 12% uterine. There was no significant increase in risk of hospitalization within 90 days in the unadjusted (HR: 1.36, 95% CI: 0.66-2.81) and adjusted models (HR: 1.46, 95% CI: 0.69-3.09). In the multivariable model, only age was associated with a higher risk of hospitalization (HR 1.37; 95% [CI 1.08-1.74] per year). **Discussion:** Our finding of no increased hospitalization risk is encouraging, particularly in the context of the expanding role of ICIs within contemporary chemotherapy regimens. Nevertheless, improved risk stratification strategies are needed to determine which patients are most likely to benefit from chemoimmunotherapy compared with chemotherapy alone, thereby reducing the likelihood of treatment-related toxicities.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
The association of psychosocial stressors and adverse mental health on past 30-day cannabis use among NYC Youth since cannabis legalization	Izza Zaidi	Elsa Van Der Mei, Jonathan McAteer, Ellenie Tuazon	NYC Department of Health and Mental Hygiene	

Background NYS legalized cannabis in 2021, raising concerns that cannabis use would become more prevalent among youth. Substance use, experience of psychosocial stressors and adverse mental health outcomes are often correlated. We seek to understand if cannabis use varies among people who report psychosocial stressors or adverse mental health. Further, we explore whether cannabis use trends changed pre- and post-legalization. **Methods** We used data from the NYC Youth Risk Behavior Survey, a biennial in-person survey of high schoolers. The survey collects information on substance use, psychosocial stressors, and adverse mental health outcomes. Measures of psychosocial stressors included lifetime experience of racial discrimination, skipping school due to feeling unsafe, experience of sexual violence, sexual dating violence, and physical dating violence, and being bullied on campus or electronically. Measures of mental health included persistent sadness, suicidality, and attempting suicide. Prevalence estimates, 95% confidence intervals, and p-values were calculated. **Results** In 2019 18% (95% CI=16.2%-19.3%) of youth reported past 30 days cannabis use. Cannabis use fell to 13% (95% CI=11.4%-14.8%) in 2023, a relative decline of 26%. Generally, youth reporting psychosocial stressors and adverse mental health were more likely to report cannabis use than those who did not within each year. Between 2019 and 2023, reports of persistent sadness and sexual violence remained constant, reports of physical dating violence decreased, and reports of electronic bullying, sexual dating violence, and attempting suicide increased. While within-year comparisons show that youth experiencing psychosocial stressors and adverse mental health report cannabis use more than those who do not experience them, cannabis use did not increase following legalization compared to pre-legalization among these groups. **Conclusions** Early evidence suggests that legalizing cannabis in NYS did not lead to increases in use among youth, even among those reporting psychosocial stressors or adverse mental health.

Frequent Loneliness and Future Risk of Heart Attack	Jenelle Cocorpus	SUNY Downstate School of Public Health
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Background: Cardiovascular disease (CVD) remains the leading cause of death in the United States (US). Loneliness is a significant public health challenge associated with adverse health outcomes, including CVD. **Objective:** Investigate the association between frequent compared with infrequent loneliness and 10-year incidence of heart attack among midlife US women. **Methods:** A retrospective study was conducted on 3,302 individuals from the Study of Women Across the Nation (SWAN) dataset. Frequent loneliness was defined as feeling lonely ≥ 3 days a week at the baseline visit. Frequent and infrequent loneliness with a 10-year incidence of heart attack risk were compared between 1996 to 2008. Covariates included demographics, health behaviors, medical conditions, and health measurements. Descriptive and summary statistics, chi-square tests, and logistic regression were performed using Stata. **Results:** The frequent loneliness group had a mean age of 45.9 years, and 27.7% were of African ancestry. The infrequent loneliness group had a mean age of 45.4 years, and 32.8% were of African ancestry. In bivariate analysis, women reporting frequent loneliness had a higher 10-year heart attack incidence compared to those who did not (3.2% vs 1.5%, p<0.05). After adjustment, the association was attenuated. However, African ancestry, lack of insurance, high blood pressure, and waist circumference ≥ 80 cm remained associated with a significantly increased risk. **Conclusions:** Frequent loneliness may reflect broader social and psychosocial factors, rather than functioning as an independent CVD risk factor. These findings emphasize the importance of considering the psychosocial context alongside traditional CVD risk factors when evaluating CVD outcomes.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Understanding indoor mold in the context of extreme weather: Implications for public health from a study in New York City.	Jenna Tipaldo	Glen Johnson, Deborah Balk	CUNY Graduate School of Public Health	

Background. Health outcomes ranging from asthma to neurological impacts have been associated with exposure to indoor mold, particularly for children. Despite widespread recognition that mold is a prominent health hazard following water damage to residential structures (from precipitation, flooding, etc.), there is a lack of nationwide data collection regarding population exposure to mold, especially following storms. This study assesses mold exposure following extreme weather by characterizing spatiotemporal patterns of residential mold complaints in New York City (NYC) through the 311 call-in system from 2010 through present. While 311 data are imperfect (they self-reported and with respect to mold, capture renters only) but as most residents of NYC rent rather than own, these data provide an important window into potential mold prevalence. We assess associations with neighborhood demographic composition, built environment characteristics, and environmental factors such as season, temperature, and precipitation, especially major storms. **Methods.** We analyze 370,368 geocoded complaints for residential indoor mold from 2010 through 2025. Complaints were aggregated by week, Census tract, and by Census tract-weeks for spatiotemporal analyses. We assess associations with neighborhood demographic composition, built environment characteristics, and environmental factors such as season, temperature, and precipitation, especially major storms. **Results.** There is strong and significant spatial clustering of complaint rates in the overall period and in the three months after major storms. Complaint rates are significantly associated with precipitation and flooded areas see significant increases in complaints following flooding compared to non-flooded areas. **Discussion.** Disparities exist in mold complaints, which increase after major storms and are associated with precipitation. Because exposure to residential dampness and mold is negatively associated with health, an understanding of residential mold prevalence and incidence is critical to informing prevention and remediation efforts, protecting health especially after extreme weather.

Inherited VDR polymorphisms associated with nevus-driven melanomagenesis	Jessica Kretli Zanetti	David C. Gibbs, Li Luo, Sharon N. Edmiston, Klaus Busam, Marianne Berwick, Nancy E. Thomas, Peter A. Kanetsky, and Irene Orlow	Memorial Sloan Kettering Cancer Center
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Background. Most cutaneous melanoma develops through one of two distinct mechanisms. One linked to UV related sun sensitivity, the other to melanocytic instability. Because vitamin D receptor (VDR) signaling governs melanocyte differentiation, quiescence, and UV responsive transcription, inherited VDR gene variants may shape these distinct developmental routes. We investigated whether germline VDR variation contributes to pathway-specific melanoma development. **Methods.** We evaluated 40 VDR single nucleotide polymorphisms (SNPs) for associations with two melanoma features: solar elastosis (SE; indicative of sun exposure) and nevus remnants (NR; indicative of melanocytic instability), in 2,953 incident primary melanomas from the international population-based Genes, Environment and Melanoma (GEM) study. Demographic, clinicopathologic, UV-exposure, and genetic data, were available. Associations between SNPs and SE/NR were estimated in separate logistic regression models adjusted for covariates (study-design, phenotypic characteristic) and multiple comparisons. Significant SNPs underwent backward stepwise regression. Independent associations with NR were assessed in multivariable models, adjusting for covariates selected based on multinomial regression. **Results.** Two SNPs in high linkage-disequilibrium were significantly associated with NR-melanoma. The VDR-rs2238140*T allele was associated with NR in the stepwise model. In multivariable models, this association remained statistically significant and was independent of nevus count, pigmentation, UV response phenotypes, and anatomic site [ORT-allele 0.82 (0.72-0.92), $p < 0.001$]. **Discussion.** These findings suggest that VDR signaling plays a nuanced role in melanoma development and is specifically relevant to the nevoid pathway rather than to UV related SE. The protective effect of the rs2238140*T allele may mark increased melanocytic stability, potentially explaining why many BRAF-mutant nevi fail to progress to melanoma. Additional findings as well as potential clinical implications will be discussed.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Feasibility and Acceptance of Person-Specific Air Quality Monitoring Using a Wearable Device in a Bronx Healthy Cohort	jiangyao zhu	Jinshil Hyun, Nelson Roque, Carol A. Derby, Mindy Joy Katz,Kiros Berhane, Charles B Hall	Albert Einstein College of Medicine	

Introduction: Wearable devices offer a promising approach to improving air pollution exposure assessment by capturing individual mobility, indoor exposures, and hyperlocal variability that are often missed by traditional area-level or modeled data. However, despite their potential, the feasibility and acceptability of sustained wearable air quality monitoring in older adult populations remain uncertain. **Methods:** We evaluated the feasibility and acceptability of wearable personal air quality assessment in a community-dwelling cohort of adults aged 60+ in Bronx, New York. Participants were instructed to carry the Atmotube Pro, a wearable air quality device, continuously for 14 consecutive days as part of a larger study protocol. The device measured particulate matter (PM₁, PM_{2.5}, PM₁₀) and volatile organic compounds (VOCs) at five-minute resolution. Feasibility and acceptability were assessed overall and compared between participants with and without mild cognitive impairment (MCI). **Results:** Of 265 eligible participants, 253 (95.5%) consented to wear the Atmotube. After applying a 71 hour/day threshold to define minimally valid monitoring days, 249 participants remained (mean age 76.5±8.1 years; 67.4% female; 38.5% non-Hispanic White; 43.3% non-Hispanic Black), including 197 cognitively normal (CN) participants and 40 with MCI. Overall, 82.3% of participants who initiated monitoring contributed valid data on the final study day (Day 14), with comparable retention in CN (82.7%) and MCI (80.0%) groups. Across the 14-day period, valid data were recorded by Atmotube Pro for 77.2% of total possible monitoring time, with similar coverage in CN (76.8%) and MCI (79.6%) participants. **Discussion:** Findings demonstrate that wearable personal air quality device is both feasible and acceptable among older adults, including those with MCI. Comparable retention and data coverage across cognitive groups support the integration of wearable air quality sensors into Alzheimer's disease and aging research to improve individual-level exposure assessment and better understand environmental risk factors.

Google trend and mental health outcome prediction with Bayesian Spatial-temporal models	Jiaqi Zhu	Dr. Katerzyna Wyka Dr. Glen Johnson Dr. Denis Nash Dr. Terry T-K Huang Dr. Peter Craigmile	CUNY Graduate School of Public Health
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The importance of mental health has gained unprecedented recognition after the COVID-19 pandemic. Traditional methods for monitoring population mental health are limited by infrequent data collection cycles and substantial reporting delays. Although real-time mental health surveillance tools are critically needed, such approaches to population mental health surveillance remain limited. Google Trends, an internet-based information surveillance tool, has demonstrated predictive value for mental health outcomes at the national level in the US. However, its utility in predicting mental health prevalence at the state level remains unexplored. In addition, few studies have incorporated Google Trends data with geospatial information to improve prediction for mental health outcomes. To address these gaps, this study examined the correlation between Google Trends data searches related to anxiety and depression and state-level self-reported mental health prevalence of these conditions, as measured by the U.S. Census Bureau's Household Pulse Survey during and after the COVID-19 pandemic from 2020 to 2022. Bayesian spatial-temporal models were employed to account for temporal autocorrelation and spatial dependence of the data. Our results show that Google Trends data can reliably predict mental health prevalence at the state level in the US. The integration of geospatial information through Bayesian spatial-temporal models enhances the predictive accuracy of the model. The posterior mean for anxiety-related search volume was 0.63 (95% credible interval: 0.36-0.88), with an R² of 0.78, explaining 78% of the variance in anxiety prevalence. The depression model also demonstrated strong performance (R² = 0.74). This modeling approach offers a promising framework for internet-based intelligence systems for population surveillance, enabling the incorporation of not only search behavior but also the timing and geographic context of data generation. Overall, this study underscores the potential of real-time internet-based surveillance tools that leverage both digital trace data and spatial-temporal dynamics to inform public health monitoring and response.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Multidimensional Acculturation Profiles among Latinos in New York City: A Latent Class Analysis	John Wetmore	Ana AbraÃ-do-Lanza, Cheng-Shiun Leu, Allison Aiello, Sandra Albrecht, Ruth Ottman	Columbia University Mailman School of Public Health	

Background: Acculturation shapes beliefs about aging, illness, and prevention that may influence Alzheimer's disease (AD)-related outcomes. However, findings have been inconsistent in previous studies of the relations of acculturation to health outcomes in Latino populations. A likely explanation is the widespread reliance on unidimensional acculturation measures, such as language use or nativity, which do not account for distinct migration histories and cultural orientations. Methods: Using data from a community-based study of Latino adults in New York City (N=1,030), we derived multidimensional acculturation profiles using latent class analysis. Indicators included language preference, nativity and age at immigration, bicultural identification, and two Latino-centric cultural values that influence health beliefs and engagement with care (i.e., familism and fatalism). Missing data (1.7%) were addressed using multiple imputation by chained equations. Models specifying two through five classes were evaluated using likelihood-based tests, information criteria, and posterior probabilities. Construct validity was examined based on comparisons of sociodemographic characteristics among classes. Results: A three-class solution provided the best balance of statistical fit and interpretability. Acculturation profiles were labeled traditional (n=476), transitional (n=311), and integrated (n=243). The traditional profile was characterized by Spanish language preference, later-life immigration, strong Latino identification, and high familism and fatalism. The transitional profile was characterized by English language preference, U.S. birth or early immigration, and similarly high familism and fatalism. The integrated profile was characterized by English language preference, greater identification with non-Latino culture, lower fatalism, and moderate familism. Profiles displayed clear socioeconomic patterning, with increasing education, religiosity, income, and private insurance coverage from traditional to integrated groups. Discussion: These findings demonstrate that distinct acculturation profiles can be empirically identified using a multidimensional framework. Future studies will examine differences in AD knowledge and beliefs, depression, anxiety, stress, AD threat, and memory performance across profiles, strengthening the investigation of sociocultural influences on AD-related outcomes.

Long-term health outcomes among individuals exposed to the World Trade Center disaster as children	Julia Sisti Janna Metzler	Christina Carroll Mary Catherine Minnig	NYC Department of Health and Mental Hygiene
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Background: Mental and physical health consequences of exposure to the September 11th, 2001 World Trade Center (WTC) terrorist attacks have been well documented among adults. Fewer studies have examined health outcomes among exposed children, including area students and residents, with most limited to the first decade post-disaster. Using data collected nearly 20 years after 9/11, we estimated prevalence of health outcomes and poor health-related quality of life (HRQOL) among children enrolled in the World Trade Center Health Registry (WTCHR), a closed, longitudinal cohort study of WTC-exposed individuals. Methods: The baseline (2003-04) WTCHR population included 3,246 enrollees who were <18 years old on 9/11; of those, 1,001 responded to a 2020-21 follow-up survey. We assessed prevalence of post-9/11 physical health conditions using self-reported diagnoses, probable mental health conditions with validated scales, and poor HRQOL indicators with the CDC's Healthy Days Measures. We additionally used multivariable-adjusted logistic regression to estimate prevalence ratios (PR) and 95% confidence intervals (95%) to assess whether lifetime prevalence of depression, asthma, and poor HRQOL differed among WTCHR enrollees compared to the similarly aged New York State general population. Results: In 2020-21, 16.3% of enrollees reported post-9/11 diagnosis of asthma, 9.1% reported gastroesophageal reflux disease, and 5.4% reported chronic sinusitis. Post-9/11 prevalence of probable depression and PTSD was 20.2% and 10.1%, respectively. Compared to the general population, WTCHR enrollees had higher lifetime prevalence of asthma (PR=1.91, 95% CI: 1.59, 2.29), depression (PR=1.57, 95% CI: 1.33, 1.86) and poor HRQOL (e.g., for fair/poor self-rated health status: PR=2.47, 95% CI: 1.81, 3.36). Discussion: Our findings suggest that, nearly two decades after the disaster, those exposed to 9/11 as children have a relatively high burden of WTC-related conditions that may negatively impact their wellbeing. Additional research and monitoring of this group is warranted to identify emerging conditions and inform treatment efforts.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Effect Modification by Prognostic Nutritional Index and Poverty-to-Income Ratio in the Association Between Diabetes Status and Number of Teeth Present Among US Adults: NHANES 2015-2020	Jungmin Han		NYU School of Global Public Health	

Diabetes is a major risk factor for tooth loss, yet the roles of nutritional-immunological status and socioeconomic context in this association remain unclear. This study examined whether the Prognostic Nutritional Index (PNI) modifies the association between diabetes status and the number of teeth present and whether this relationship differs by poverty-to-income ratio (PIR). Data from NHANES 2015-2020 were analyzed among adults aged 30 years and older. The outcome was the number of permanent teeth present (0-28), and diabetes status was defined using HbA1c levels. Survey-weighted quasi-Poisson regression was used to estimate rate ratios while adjusting for demographic, socioeconomic, and behavioral covariates. Diabetes was significantly associated with fewer teeth, and the interaction between diabetes and PNI was statistically significant ($p = 0.021$), indicating effect modification by nutritional-immunological status. The association also differed across income groups, although the three-way interaction among diabetes, PNI, and income was not statistically significant. These findings highlight the importance of considering nutritional status and socioeconomic factors in understanding oral health disparities among adults with diabetes.

The Impact of Co-occurring Opioid and Stimulant Use Disorders on Unplanned Readmissions Among Patients Hospitalized with Bacterial Infections	Junjie Hu	Nicholas Blair, Pia M. Mauro, Hillary Samples, Greta Bushnell, Michael T. Yin, Stephanie Shiau	Rutgers School of Public Health	
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Background: Opioid and stimulant use disorders (OUD and StUD) are major drivers of injection drug use (IDU)-related bacterial infections requiring hospitalization and may increase readmission risk. However, the independent and combined effects of these factors on short-term readmission risk remain unclear. We examined the association between OUD and/or StUD and unplanned 7-day and 30-day all-cause readmissions among patients hospitalized with IDU-related bacterial infections. Methods: We conducted a retrospective cohort study utilizing the 2022 Healthcare Cost and Utilization Project Nationwide Readmission Database (NRD), applying survey weights to generate national estimates. The study included adults hospitalized with a primary diagnosis of skin and soft tissue infections, osteomyelitis, infective endocarditis, or central nervous system abscess. Exposure groups were neither disorder, OUD only, StUD only, and co-occurring OUD and StUD, identified using ICD-10-CM codes. Primary outcomes were unplanned all-cause readmission within 7 days and 30 days of discharge. Results: Among 392,984 weighted index admissions, the mean age was 58.8 years; 57.1% were male, and 46.9% had Medicare coverage. Overall, 4.52% involved OUD only, 3.93% StUD only, and 2.44% co-occurring disorders. Unplanned readmission occurred in 4.28% (7-day) and 12.48% (30-day). After adjustment, OUD and/or StUD were associated with higher odds of 7-day and 30-day readmission compared with neither disorder. Although statistically insignificant, patients with co-occurring disorders had higher odds of readmission than those with OUD only. Conclusions: OUD and/or StUD were associated with an increased risk of short-term unplanned readmission after IDU-related bacterial infections. Integrating addiction treatment into inpatient infection care may reduce preventable readmissions.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Prevalence of Food Insecurity and Association with Chronic Inflammatory Markers in Children with Overweight/Obesity	Juyoung Kim	Judith Wylie-Rosett, Adriana E. Groisman-Perelstein, Pamela M. Diamantis, Jessica Rieder, Mindy Ginsberg, Alice H Lichtenstein, Nirupa R. Matthan, Viswanathan Shankar	Other	Tenafly High School

Background: Food insecurity in children is associated with poorer diet quality, which is a cardiometabolic risk factor. The association between food insecurity and inflammatory markers, specifically in overweight/obese children, is limited. We investigated the prevalence of food insecurity and its association with inflammatory and endothelial biomarkers among 7-12 yo children. Methods: Family Weight Management randomized controlled trial baseline data was used to assess the prevalence of food insecurity and compare inflammatory biomarkers across food security categories. Descriptive statistics, and ANOVA was used to compare groups. Results: Overall, 39% (95% CI: 34, 44) of households were food insecure, and 14% had very low food security. Average C-reactive protein (CRP) levels were 3.4 (4.5) in food-secure group, 2.9 (3.7) in low food-secure group, and 5.4 (8.9) in the very low food-secure group ($p < 0.03$). Endothelial markers sICAM-3 and thrombomodulin showed marginally significant differences at the 10% level. When stratified by weight status, CRP levels were within the normal range (< 3 mg/L) across all food security categories among overweight children (24%) but were elevated among obese children. In the obese subgroup (76%), CRP and sICAM-3 remained significant at the 10% level, whereas no differences were observed in the overweight subgroup. Conclusion: Our findings support literature that inflammatory markers, particularly CRP, are higher among very low food-secure children. We observed a hypothesis-generating U-shaped pattern across food security categories for several inflammatory markers, suggesting poorer diet quality in very low food-secure and possibly higher intake of energy-dense foods among food-secure children, with low food-secure children falling between these patterns.

Perceived Medical Misogyny in the American Healthcare System: A Content Analysis of TikTok Narratives	Karen Banessa Maldonado	Emma Thomas, Ariyana Pelzer, Sama Ahmed	Hofstra University, School of Health Sciences, Population Health
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Background: Medical misogyny, the systematic dismissal of women's symptoms within clinical settings, contributes to gender-based healthcare disparities. Approximately two-thirds of women between the ages of 18 and 49 report experiencing mistreatment when seeking care. As short-form video platforms become influential health information sources, content depicting medical misogyny may shape young women's care-seeking intentions in consequential ways. Purpose: This study examined how medical misogyny is portrayed on TikTok and how those portrayals reflect young women's attitudes toward healthcare engagement. Methods: A systematic sample of TikTok videos was identified using predetermined keywords and hashtags associated with medical misogyny. Four independent coders applied a structured content analysis instrument assessing self-advocacy behaviors, trust in the medical system, intention to seek future care, speaker identity (patient vs. provider), and video style. Speaker race/ethnicity and engagement metrics were recorded as secondary variables, and inter-rater reliability was assessed. Findings: Women demonstrated moderately high self-advocacy alongside significantly low trust in the medical system, with overall video tone predominantly negative. Women of color were disproportionately represented among speakers, with reproductive health emerging as the most frequently discussed concern. A notable subset of videos featured healthcare providers corroborating patient experiences of dismissal, lending clinical credibility to the narratives portrayed. Conclusions and Implications: TikTok functions as both a documentation platform and an informal health education space for young women. The predominantly negative content circulating on this platform may deter care-seeking during a critical period for reproductive and preventive health. These findings highlight the need for gender-responsive advocacy initiatives and provider training to address implicit bias. Future research should examine how social media health content influences care-seeking behavior longitudinally, particularly among women of color.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Loss of Maternity Beds and Health Outcomes in New York State: A Geographically Weighted Regression Analysis	Katherine Schwalbe		CUNY Graduate School of Public Health	
Background Over the past 10 years, hospitals in New York State have decreased their certified maternity beds by approximately 500 beds. Impending funding cuts are likely to exacerbate closures. Researchers continue to study the effects of declining access to care on on maternal and infant health outcomes, though a definitive consensus on the effects remains elusive. Methods I use NYS county-level data to investigate whether there is a relationship between a) county-level maternity bed loss between 2012 and 2022 and the 2022 infant mortality rate and b) county-level maternity bed loss between 2012 and 2022 and the percentage of low risk births delivered as c-sections. I use geographically weighted regression (GWR) to best account for the spatial nature of this data; unlike ordinary least squares (OLS) regression, GWR allows relationships to vary locally. Results Our first question looks at the percent change in maternity bed closures as a predictor of the infant mortality rate at the county level within NYS. While the overall r^2 is quite low, there is significant regional variation. Overall, these results support a theory that while we cannot conclude that change in bed loss predicts infant mortality overall, there does appear to be some geographic variation in how strong the relationship is across New York State. Analysis of the second question is pending. Discussion In NYS, hospital maternity bed closures are a generally weak predictor of the county-level infant mortality rate, although there is geographic variation. However, infant mortality rates are overall quite low and analyzing them among small population units (such as non-urban counties over a relatively small time period) is statistically problematic. Analysis of the second outcome may show a clearer relationship between how maternity bed loss is potentially related to care outcomes in different geographic areas of NYS.				

Examining the impact of public trust in government on infectious disease outbreaks using an agent-based model.

Katherine Miller

Robyn R. Gershon

NYU School of Global Public Health

Background: Public trust in government plays a critical role in shaping individual compliance with protective behaviors during infectious disease outbreaks. The mechanisms through which trust affects infection spread, recovery, and mortality remain underexplored. This study uses a simple agent-based modeling approach to suggest that more complex models be used in the future to examine how trust in government influences outbreak outcomes using a simulated viral outbreak. **Methods:** A network agent-based model was developed, in which agents differed in their level of trust in government. Trust affected the likelihood of adopting protective behaviors, and thus susceptibility to infection, duration of infection, and mortality. Agents interacted through two overlapping networks representing disease transmission and social influence. 550 simulations were run, varying mean of trust in government from 0 to 1 in increments of 0.1, while holding all other parameters constant. At the end of each simulation, the number of individuals alive, infected, and immune were recorded. Linear regression models were used to quantify the association between mean trust and each outcome. **Results:** Higher mean trust was associated with improved population outcomes. Increases in trust resulted in a greater number of survivors ($\beta = 22.0$, $p < 0.001$) and fewer infected ($\beta = 253.4$, $p < 0.001$). Mean trust also showed a strong association with changes in population immunity, reflecting altered epidemic trajectories under higher compliance with protective behaviors. Across outcomes, trust explained approximately 23-30% of the variance in final epidemic states. **Discussion:** These findings are based on a simplistic model that should be expanded upon to reflect real-world outbreak and pandemic conditions, such as specific protective behaviors or government messaging style. The results highlight the importance of social and behavioral factors in epidemic modeling and suggest that maintaining public trust may be a critical component of effective outbreak response strategies.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Cost-effectiveness of a pictorial medication sheet for older adults with heart failure and cognitive impairment	Kaylee Vannoy		Other	University of California, San Francisco

Older adults with chronic health conditions like heart failure (HF) and cognitive impairment face challenges managing complex medication regimens, leading to poor adherence, worsening clinical status, and increased healthcare costs. Many existing interventions to improve medication adherence depend on digital technologies that may be too complex or require consistent caregiver support limiting their effectiveness in this population. Prior research demonstrated the efficacy of a simple pictorial medication sheet intervention compared to usual care. This study evaluates the cost-effectiveness of a pictorial medication sheet compared to usual care for older adults with HF and cognitive impairment. We developed a decision tree model with disease states in Microsoft Excel to evaluate changes in costs and quality-adjusted life years (QALYs) after implementing the intervention for older adults living with cognitive impairment and HF. The base case model used a one-year time horizon with adherence pathways and clinical outcomes, including decompensation, recovery, worsened or stable HF, and death. Sensitivity analyses (one-way, scenario, and Monte Carlo) explored how uncertainty in parameter inputs and time frame affects results. Over a one-year time horizon, our model showed individuals using the pictorial medication sheet intervention had a total cost of \$22,557 and 0.691 QALYs. Compared to usual care, the intervention was dominant (less costly and more effective), with \$1,949 lower cost and a gain of 0.0045 QALYs, thus implementation for 100 individuals would potentially yield 0.45 QALYs and save \$195,000 annually. Sensitivity analyses found that the intervention remained dominant over one year across plausible parameter ranges. The pictorial medication sheet appeared to be cost saving and more effective than usual care for older adults living with cognitive impairment and HF in the United States. This finding supports evaluating strategies to implement the pictorial medication sheet at scale.

Midlife diet influences women's risk of Alzheimer's Disease	Keenan Duggal	Fen Wu, Emily Johnson, Yian Gu, Karen L. Koenig, Alan Arslan, Yelena Afanasyeva, Anne Zeleniuch-Jacquotte, Yu Chen	NYU Grossman School of Medicine
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Background Few epidemiologic studies to date have investigated the effects of mid-life dietary patterns on lifetime cognitive decline - particularly in females, who experience a disproportionately high burden of the disease. In this study, we interrogated how participants' midlife dietary patterns and intakes of individual foods were associated with their risk of AD. **Methods** We conducted a nested case-control study of 1,865 late-life AD cases and 3,730 controls from the New York University Women's Health Study, a prospective cohort of 14,273 cognitively healthy women aged 35-65 years and followed for over 30 years, with diet data assessed at baseline during midlife. We compared baseline intakes of individual foods between the groups, and we fit conditional logistic regression models to estimate how midlife adherence to data-generated and established dietary patterns - Dietary Approaches to Stop Hypertension (DASH), reverse Empirical Dietary Index for Hyperinsulinemia (rEDIH) and Mediterranean-DASH Intervention for Neurodegenerative Delay (MIND) - are related to AD risk. **Results** Women who developed late-life AD during follow up reported a greater consumption of foods high in saturated fats and lower consumption of fruits, vegetables and legumes at baseline in midlife. Middle aged women who were more adherent to the MIND diet had a decreased risk of late-life AD (per-tertile OR: 0.92, (0.91, 0.93)) (Table 1). The data-derived dietary pattern-characterized by higher intake of saturated fat-rich foods-was positively associated with AD risk (per-tertile OR: 1.33 (1.15, 1.54). No associations were detected for the DASH or rEDIH diets. **Conclusions** Greater midlife adherence to the MIND diet and higher fruit and vegetable intakes were associated with lower late-life AD risk, whereas higher intakes of foods with saturated fats was related to higher risk. These findings can inform targeted, cost-effective dietary prevention strategies.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Layoffs in automobile manufacturing and mortality among remaining workers	Kevin Chen	Sally Picciotto, Patrick T Bradshaw, Jennifer Ahern, Ellen A Eisen	Memorial Sloan Kettering Cancer Center	

Background Layoffs may affect the health of those who lose their jobs as well as those who remain employed. Existing studies have found that remaining employed through layoffs is associated with poorer mental health in the short term, but the implications for long-term outcomes such as mortality remain unclear. **Methods** We estimated adjusted HRs for all-cause and cause-specific mortality associated with layoff intensity while employed among white men, non-white men and women in a cohort of 9761 autoworkers who worked at one of three plants in Michigan between the years 1950 and 1980. We defined layoff intensity as the number of layoff months endured while employed divided by duration of employment. We identified layoff months as those in which the percentage of the workforce leaving employment was 1.96 SD above the predicted value from an autoregressive integrated moving average model. **Results** We found statistically significant associations among non-white men but not women or white men. Relative to layoff intensity below the first quartile, the adjusted HR associated with layoff intensity between the first and second quartiles was 1.35 (95% CI 1.05 to 1.74) for all-cause mortality among non-white men. The adjusted HRs associated with layoff intensity between the second and third quartiles were 1.85 (95% CI 1.08 to 3.17) and 2.41 (95% CI 1.00 to 5.84) for death due to all cancers and lung cancer, respectively. **Conclusion** Layoffs endured while employed may lead to early mortality among non-white male employees. Reducing workforce instability may reduce racial disparities in health.

Dominican Ethnic Concentration and Food Swamp Classification: A Neighborhood-Level Analysis	Khushboo Agarwal	Karen FlÃ³rez, DrPH, MPH Emily M. D'Agostino, DPH, MS, MEd, MA	CUNY Graduate School of Public Health	
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Background: Neighborhood food environments are key structural determinants of dietary behavior and chronic disease risk, yet commonly used measures, such as food swamp classifications, may inadequately capture food access in immigrant communities. Ethnic enclaves, including Dominican communities, often maintain distinctive social, economic, and retail systems that can influence availability of culturally relevant or healthier foods. Despite their longstanding presence in the United States, Dominican communities remain understudied in food environment research. This study examines whether ZIP code-level Dominican ethnic concentration is associated with food swamp status. **Methods** ZIP level Dominican ethnic concentration and food environment indicators were derived from the 2018-2022 American Community Survey and linked to the 2021 City University of New York Dominican Health Survey. All variables were aggregated to one observation per ZIP code. Food swamps were defined as areas with an unhealthy to healthy food retailer ratio ≥ 3 . Logistic regression models estimated the association between Dominican concentration and food swamp classification, adjusting for ZIP level socioeconomic covariates including poverty, immigrant share, and household vehicle access. Residual spatial autocorrelation was assessed using Moran's I, and spatial error models were estimated to evaluate robustness to spatially structured residual dependence. **Results** Higher Dominican concentration was associated with lower odds of ZIP level food swamp classification. A one unit increase in Dominican concentration was associated with reduced odds of being classified as a food swamp (AOR = 0.50; 95% CI: 0.33, 0.77; $p = 0.002$). Moran's I indicated significant spatial autocorrelation ($p < 0.001$). After accounting for spatial error dependence, Dominican concentration remained negatively associated with food swamp classification ($\beta = -0.14$, SE = 0.04, $p = 0.001$) demonstrating robustness to spatial dependence. **Discussion** Findings suggest that Dominican ethnic concentration may be associated with healthier neighborhood food environments, underscoring the need to investigate how immigrant enclave structures shape food access and support place based health.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Postpartum Paid Family Leave in New York City, 2016 to 2022	Lauren Birnie	Gasia Oknayan, Isabel Gouse, Rebecca Friedman	NYC Department of Health and Mental Hygiene	

Background: New York State Paid Family Leave (NYS PFL), incrementally rolled out between 2018 and 2021, provides 12 weeks of paid family leave (PFL) for new parents. A state-wide evaluation demonstrated an increase in PFL utilization, however there have been no evaluations of this policy for NYC. Methods: We conducted a cross-sectional analysis of the NYC Pregnancy Risk Assessment Monitoring System (PRAMS), which surveyed a random sample of NYC residents with a live birth 2016-2022 (n=9,337). We examined the percentage of birthing people who reported taking any paid leave and exclusively paid leave for 12+ weeks before and after NYSPFL implementation (2016-2017 vs. 2021-2022). We used logistic regression to examine the association between exclusively paid leave for 12+ weeks and postpartum health outcomes, controlling for maternal demographics. Data were weighted to be representative of all NYC residents' live births between 2016-2022. Results: After NYSPFL implementation, birthing people were more likely to take any paid leave (66% [95% Confidence Interval=63%,69%] pre-NYSPFL vs. 74% [71%,76%] post-NYSPFL), however inequities persisted by race-ethnicity, insurance type, and nativity. After NYSPFL implementation, more birthing people were able to take exclusively paid leave for 12+ weeks (31% [28%,34%] vs. 51% [48%,54%]), with improvements across all subgroups. Compared with NYC birthing people who did not take exclusively paid leave for 12+ weeks, those who did were less likely to experience postpartum depressive symptoms (13% [12%,14%] vs. 10% [9%,12%]), more likely to exclusively breastfeed at 8 weeks postpartum (32% [30%,35%] vs. 38% [36%,41%]), and more likely to attend a postpartum checkup (91% [89%,92%] vs. 95% [93%,96%]). Discussion: NYSPFL is a system-level policy that has the potential to improve maternal health outcomes. Despite increased use of PFL after NYSPFL implementation, disparities persist. Employer oversight, increased benefits for low-income individuals, and accurate and accessible information on NYSPFL eligibility may increase utilization.

Sociodemographic Trends in New York City Motor Vehicle Traffic Fatalities: 2011-2023	Lawrence Fung	Anna Caffarelli	NYC Department of Health and Mental Hygiene	
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Background Motor vehicle traffic injuries are a leading cause of mortality in NYC. Compared with national traffic fatality rates, NYC remains one of the safest cities in the US. Despite NYC traffic fatalities decreasing after Vision Zero started in 2014, many disparities exist across sociodemographic factors. Methods The NYC Health Department's Office of Vital Statistics identified traffic fatalities from 2011 to 2023 using International Classification of Diseases, 10th Revision external cause codes ranging from V00 to V99. NYC traffic fatality rates were calculated for overall traffic fatalities and various demographic categories using population estimates from the US Census Bureau. NYC fatality rates were compared to national data from the National Highway Traffic Safety Administration's Fatal Accident Reporting System. Results NYC traffic fatality rates remained low compared with US (3.2 vs 12.2 per 100,000 in 2023). Despite a declining traffic fatality rate among older adults (age 65+) and a steady rate among children (age <18) since 2011, the 2023 traffic fatality rate was highest among New Yorkers aged 18 to 24 (5.7 per 100,000). Males have nearly four times the traffic fatality rate of females (5.2 vs. 1.7 per 100,000). From 2011 through 2017, traffic fatality rates were similar among racial-ethnic groups and neighborhood poverty. However since 2018, Latino and non-Latino Black New Yorkers have had higher traffic fatality rates than other racial-ethnic groups (4.2 and 3.3 vs. 2.6 Asian, and 2.5 per 100,000 non-Latino White in 2023). Since 2016, New Yorkers living in high poverty neighborhoods have had a higher traffic fatality rate than those living in low poverty neighborhoods (3.5 vs. 2.0 per 100,000 in 2023). Conclusion Although Vision Zero has shown success in reducing traffic fatalities and improving road safety in NYC, equitable solutions need to address growing disparities across race/ethnicity and neighborhood poverty.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Does Missing Data Inflate the Healthy Immigrant Effect? Evidence from the All of Us Research Program	Lisa Chen	Dr. Thomas Kirchner	NYU School of Global Public Health	

The "healthy immigrant effect" refers to the commonly observed pattern in which immigrants demonstrate more favourable health outcomes than U.S.-born populations, including lower smoking prevalence. However, large longitudinal cohorts, such as the All of Us Research Program, contain substantial sociodemographic missingness, particularly for race/ethnicity, which may bias cross-sectional estimates of nativity-based health disparities. This study evaluates whether systematic race/ethnicity missingness inflates the observed association between immigrant status and ever smoking. Data was drawn from 559,990 adults aged ≥18 years in the All of Us Research Program (CDR v8). Immigrant status (immigrant vs. U.S.-born) served as the exposure and ever smoking (self-reported) was the outcome. Logistic regression models estimated odds ratios (ORs) and 95% confidence intervals (CIs) under three specifications: (1) crude; (2) adjusted for age, sex, race/ethnicity, education, and income; and (3) adjusted complete-case analysis excluding participants with missing race. Of the analytic sample, 14.8% (n=82,831) were immigrants and 85.2% (n=477,159) were U.S.-born. Smoking prevalence was 25.4% among immigrants and 41.9% among U.S.-born adults. The crude model indicated that immigrants had 53% lower odds of ever smoking compared to U.S.-born individuals (OR=0.47; 95% CI: 0.47-0.48). Adjustment attenuated the association (OR=0.69; 95% CI: 0.68-0.71). Excluding participants with missing race further attenuated the association (OR=0.83; 95% CI: 0.81-0.86), indicating that systematic race nonresponse materially inflates the observed healthy immigrant effect. Systematic sociodemographic missingness can distort population health estimates and overstate protective effects among immigrant populations. Strengthening race/ethnicity data collection and reducing nonresponse in large national cohorts is critical to producing valid health disparity estimates and informing equitable public health policy.

More Veggies: A Produce Prescription Program in the South Bronx	Lissette Paulino	Robert M. Rock, MD, MHS, Leila JeanPierre, MPH, Lauren Shiman, MPH, Fatoumata Diallo, MPH, Gladys Paredes, MBA, Andrea Hernandez, MS, Migdalia Morel, MPH, Rosemary Lopez, MPH, Anita Reyes, BS.	NYC Department of Health and Mental Hygiene	
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Background: Produce prescription programs to increase purchasing power and access to fresh fruits and vegetables, nutrition education, and other support to enable healthier lifestyles among participants. More Veggies is a produce prescription serving Bronx residents, funded by the Gus Schumacher Nutrition Incentive Program and operated by NYC Health Department in collaboration with Urban Health Plan, a federally qualified health center in the South Bronx. Methods: Adults were eligible if they were a patient at Urban Health Plan; lived in the Bronx; had Medicaid; screened positive for risk of food insecurity; and had uncontrolled diabetes defined as an A1C test value, ≥8.0% at their most recent measurement. In total, 250 patients enrolled in the one-year pilot program. Participants receive \$100 or \$150 monthly (based on household size) via a debit card that leverages the OTC network to purchase fresh fruits and vegetables. Participants receive monthly case management phone calls and the opportunity to participate in hybrid diabetes self-management and education classes. Results: Most participants reported identifying as Hispanic/Latino (91%), female (65%), and Spanish speaking (75%). Forty-seven percent are over age 65. Eighty-six percent of participants reported moderate or high diabetes emotion-related distress on the Diabetes Distress Scale. The average redemption rate of incentive funds by participants is 91% as of December 2025. Participants average 4-5 transactions per month and spend an average of \$29 dollars per transaction, indicating consistent spending behavior throughout each month. Twelve percent of participants have utilized our Diabetes Self-Management Education courses. Discussion: The More Veggies Produce Prescription program was implemented as intended with a high utilization rate, building upon a strong partner relationship with a community health center and using bilingual staff to effectively connect with South Bronx residents. Preliminary data demonstrates highly engaged participants and early indication of positive changes to diet behaviors.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Use of a matching algorithm to link New York City 15/15 Supportive Housing eligible persons to other City data sources	Loren Adams	Aaron Zalki, Mark Alexander, Ho Ben Cheung, Jannae Parrott, Jackson Berry, Sara Miller-Archie, MarÃ-a Baquero, Sungwoo Lim	NYC Department of Health and Mental Hygiene	

Background New York City 15/15 (NYC 15/15) is a city-funded initiative to create 15,000 supportive housing units for people experiencing chronic homelessness with a substance use disorder or serious mental illness, young adults, and young adult families. To evaluate the impact on health outcomes and healthcare utilization, we matched the NYC 15/15 cohort to various registries. **Methods** The principal data source is the cohort of NYC 15/15 eligible persons from January 2017- June 2023 who consented to the evaluation (N = 1,262), provided by the NYC Human Resources Administration. We matched this cohort to six administrative datasets. Five were registries maintained by Health Department teams covering mental health diagnoses, mortality, and hepatitis C, HIV/AIDS and other sexually transmitted infections. The sixth external dataset was incarceration data from Department of Correction. We used a Python-based library developed by the Health Department ("Persoa"), to conduct deterministic and probabilistic data matching of the NYC 15/15 cohort with each administrative dataset using the following identifiers: first and last name, date of birth, Social Security Number, address, and gender/sex. We completed manual reviews of matched records sampled from each dataset; each pair required two reviewers and a third reviewer to settle any discordance. Reviewers applied set criteria to determine if Persoa's match and non-match decisions were true versus false. A priori, we set a 95% threshold for sensitivity, specificity, and F1 score. **Results** We compared the manual review and Persoa decisions to compute the sensitivity, specificity, and F1 score of the matching algorithm applied to each dataset. The final weighted metrics were all 99%. **Discussion** The high sensitivity, specificity, and F1 scores suggest that Persoa matching was of high quality. This matching methodology will help to more fully characterize supportive housing residents and strengthen the validity of analyses that evaluate the impact of NYC 15/15.

Long-Term Cancer Trends Among Taiwanese Farmers: An Age-Period-Cohort Analysis (2000-2023)	Lynn Francis	Amr S. Soliman, Liang-You Wu, Chi-Jung Chung	CUNY Graduate School of Public Health
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Background: Taiwanese farmers are exposed to chemicals that may be related to cancer risk. Therefore, we conducted this study to examine temporal trends in cancer incidence among Taiwanese farmers over a 24-year period (2000-2023). **Methods:** We linked the Taiwan Cancer Registry to the National Health Insurance Research Database. Incident male cancer cases of agricultural workers whose ages ranged between 15 and 84 from 2000 to 2023 were identified (N=179,569). Age-standardized incidence rates, age-standardized rate ratio, and age-standardized incidence ratio were calculated. A Joinpoint regression and age-period-cohort model were used to identify and examine temporal trends across the study period. **Results:** Overall cancer incidence was higher among farmers when compared to the general population, with an increasing temporal trend from 2000 to 2023. Lung and lip cancers showed a significantly increased annual average percentage change, period effect, and age effect for the entire study period. Lung cancer showed an initial increasing cohort effect, followed by a modest decreasing trend in later cohorts. Lip cancer showed a sustained increase in cohort effect throughout the entire study period. **Discussion:** This study provides evidence that farmers are at a higher risk of lung and lip cancers compared to the general population. As exposure varies by agricultural activity and farm type, further research is needed to identify specific exposures that are related to the higher risk of cancer in this population.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Evaluating the Impact of Mechanical CPR in Out-of-hospital Cardiac Arrest Patients in a Large Urban EMS System	Madeline Cannon	Pamela Lai, Rachel Zeig-Owens, Elizabeth Lancet	Other	Fire Department of the City of New York (FDNY)

Background: While use of mechanical chest compression devices for cardiopulmonary resuscitation (CPR) during transport enhances crew safety, it is unclear whether it results in better survival outcomes for out-of-hospital cardiac arrest (OHCA) patients. In 2023, the Fire Department of the City of New York Emergency Medical Service (FDNY-EMS) implemented a phased rollout of a mechanical CPR device (Stryker LUCASÂ® 3 chest compression system) onto basic life support (BLS) municipal ambulances, creating a natural experiment which emulated a stepped-wedge cluster randomized trial. **Methods:** Mechanical CPR devices were installed sequentially onto municipal BLS ambulances by EMS division over seventeen weeks. The devices were used during transport only. To estimate the effect of mechanical CPR on sustained return of spontaneous circulation at emergency department arrival (S-ROSC), we used multilevel mixed-effects logistic regression models clustered by EMS division and adjusted for time and other confounders. We used two-stage residual inclusion (2SRI) to estimate the local causal effect among compliers (patients whose treatment would be influenced by assignment). **Results:** Our study included 1,317 non-traumatic OHCA patients ≥15 years of age who were transported by FDNY-EMS between 8/6/2023 and 12/30/2023. Compliance with protocol was 80.1% in the mechanical CPR group and 99.2% in the manual CPR group. In the mechanical CPR group, 275 (34.7%) patients achieved S-ROSC; in the manual CPR group, 188 (35.8%) patients achieved S-ROSC (AOR=0.83, 95% CI 0.59-1.16). Among patients with a presenting rhythm of asystole or pulseless electrical activity, the odds of S-ROSC were significantly lower for those in the mechanical CPR group (AOR=0.60, 95% CI 0.37-0.99). In the 2SRI analysis, mechanical CPR was associated with lower odds of S-ROSC, though the association was not statistically significant (OR=0.67, 95% CI 0.43-1.02). **Discussion:** The introduction of mechanical CPR devices to municipal BLS ambulances in New York City did not improve rates of S-ROSC.

Environmental Elevation and Rural-Urban Disparities in Stunting and Double Burden Among High-Altitude Andean Preschool Children	Maria Pineda	Esteban Maggi	Other	Independent Researcher, Ecuador
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Background: In high-altitude Andean regions, the coexistence of stunting and overweight represents a persistent public health challenge. While altitude influences growth through hypobaric hypoxia, rapid socioeconomic transitions are shifting diets toward ultra-processed foods. This study compared nutritional profiles among preschool children in two geographically proximate settings within the same administrative parish. **Methods:** A descriptive cross-sectional study was conducted in two Andean school settings: a semi-urban cluster located at 2,700 meters above sea level and a rural high-altitude cluster at 3,049 meters above sea level. Nutritional status was assessed in 123 children aged 36 to 71 months using World Health Organization growth standards. Stunting, overweight, and wasting were defined according to height-for-age and body mass index-for-age Z-scores. Prevalence ratios and absolute differences were calculated to compare linear growth failure between geographic settings. **Results:** Overall stunting prevalence was 47.9%. Stunting was higher in the rural cluster (63.6%) compared to the semi-urban cluster (46.5%) (prevalence ratio: 1.37). **Discussion:** A marked intra-territorial disparity in linear growth was observed within a shared administrative setting. The magnitude of the difference suggests that environmental elevation and rural isolation may amplify structural vulnerabilities in early childhood growth. These findings support the consideration of geographically adapted public health strategies in high-altitude regions undergoing nutritional transition.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Long-term exposure to wildfire smoke PM2.5 and survival of older lung cancer patients	Min Zhang	Juan P. Wisnivesky; Minghao Qiu; Mahdiah Danesh Yazdi; Rosalind J. Wright; Joel D. Schwartz; Christine C. Ekenga; Robert O. Wright; Yaguang Wei	Icahn School of Medicine at Mount Sinai	

Objective To comprehensively explore the effect of long-term exposure to wildfire smoke PM2.5 versus non-smoke PM2.5 on survival of older lung cancer patients. **Design** A prospective cohort study. **Setting** Surveillance, Epidemiology, and End Results-Medicare database. **Participants** Patients ≥65 years with primary diagnosis of lung cancer from 2006 to 2019. **Exposures** Three-year moving average concentrations of wildfire smoke PM2.5 and non-smoke PM2.5 were the primary exposures. The duration and frequency of wildfire smoke PM2.5 exposure, examined by 3-year moving averages of the number of smoke days and of the number of smoke waves, was used as secondary exposures. **Main Outcomes Measures** Overall survival status was defined as the earliest of death, loss to follow-up, or study end. A time-varying Cox proportional hazards model was applied to estimate hazard ratios (HRs) for mortality risk. **Results** Among 414,016 patients with 1,211,490 person-year of follow up, each 1- $\mu\text{g}/\text{m}^3$ increase in wildfire smoke PM2.5 was associated with a 7.3% increased risk of death among lung cancer patients (HR: 1.073, 95% CI: 1.064-1.092), which was notably greater than that of non-smoke PM2.5 (HR: 1.017, 95% CI: 1.015-1.019). This finding translated to approximately 1,941 (95% CI: 1,709, 2,463) annual excess deaths attributable to wildfire smoke PM2.5 and 456 (95% CI: 397, 512) to non-smoke PM2.5. The number of smoke days and of smoke waves were also positively associated with mortality risk. A larger effect of wildfire smoke PM2.5 was observed among women and among patients who did not receive surgery or chemotherapy in their first course of treatment. **Conclusions** Long-term exposure to wildfire smoke PM2.5 was substantially more strongly associated with lower survival in older lung cancer patients with than non-smoke PM2.5. Under a changing climate, strengthening wildfire management and reducing wildfire smoke exposure in clinical care could improve the survival of older lung cancer patients.

Characterizing drug poisoning- and disorder-related visit burden in New York Emergency Departments during the Covid-19 pandemic: Methodological implications for researchers	Mireia Triguero Roura	Aabha Vora Pia M. Mauro	Rutgers School of Public Health	
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Background: New York, the epicenter of the COVID-19 pandemic in the US, saw sharp declines in overall Emergency Department (ED) use and shifts in care access and delivery, representing a structural disruption to emergency care. These system-wide changes may distort ED drug burden measures (drug-related visits divided by total visits) and complicate interpretation of community drug-treatment-need indicators. We examine these impacts on ED drug burden measures and discuss the methodological implications. **Methods:** We used 2018-2021 Healthcare Cost & Utilization Project State Emergency Department Dataset claims from New York state (N=23,996,884 ED visits not resulting in hospitalization). Drug-related visits using ICD-10 codes for primary poisoning or disorder diagnoses and calculated observed monthly burden (disaggregated into poisoning or disorder diagnoses). We projected counterfactual total ED visits from pre-pandemic trends using linear regression predicting log-transformed counts, with time and seasonal adjustments. We summarized monthly absolute changes with means and z-scores. We used overdose mortality data to compute a mortality-to-visit ratio to contextualize unmet need. Time-series plots compared observed and counterfactual burden and mortality-to-visit ratios. **Results:** In New York before March 2020, monthly changes in poisoning-related and disorder-related ED burden averaged 0.14 (SD=0.09) and 0.34 (SD=0.30) per 1000 visits. From March to April 2020, burden rose by 2.1 people per 1000 for poisoning and by 4.5 per 1000 for disorder (89.7 % and 48.3% increases; $Z_{\text{poisoning}}=21.11$, $Z_{\text{disorder}}=13.71$ vs. 2018-2019 changes). Instead, counterfactual estimates show slight increases in 2020-2021 (with a brief initial decline for disorder burden in March-April). Triangulation with overdose mortality data shows increases in unmet need during 2020-21. **Discussion:** The pandemic disruption of EDs in NY changed the way that community treatment need can be measured as a function of drug-related visit burden. Longitudinal analyses that include the pandemic must account for this measurement instability to avoid biased estimates.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Social Determinants of Pre-Transplant Cognitive Impairment: Identifying Neighborhood and Individual Predictors	Nancy Huang	Jingyao Hong, Ilana Mittleman, Yiting Li, Nidhi Ghildayal, Nicole M. Ali, Dorry L. Segev, Mara A. McAdams-DeMarco	NYU Grossman School of Medicine	

Introduction: Cognitive impairment is associated with poor kidney transplant (KT) access and waitlist survival. While social determinants of health (SDOH) have been linked to dementia in community-dwelling older adults, whether individual and neighborhood-level SDOH impact cognition in KT candidates remains unclear. We aimed to quantify the association between SDOH and cognitive impairment in KT candidates using a machine learning approach. Methods: We leveraged 3,900 adult KT candidates in a prospective multicohort study (2014-2024). We used gradient boosting to identify key predictors and non-linear patterns, and logistic regression models to quantify associations between individual- and neighborhood-level (neighborhood deprivation index and components, using residential ZIP codes) SDOH and cognitive impairment (Modified Mini-Mental State Examination score<80 or Montreal Cognitive Assessment score<18). Results: At evaluation, 18% of candidates had cognitive impairment. Individual-level limited health literacy was the strongest predictor of cognitive impairment (Shapley Additive Explanations value [SHAP]=0.8) and was associated with increased risk (adjusted odds ratio [aOR]=3.08, 95% confidence interval [CI]:2.09-4.52). Among the neighborhood-level SDOH, the percentage of households receiving public assistance was the leading predictor (SHAP=0.1). We observed a non-linear association between the percentage of households receiving public assistance and cognitive impairment. Specifically, among candidates living in low percentage neighborhoods, each unit increase was associated with a 1.51-fold (95%CI:1.10-2.08) increased risk of cognitive impairment; among candidates living in high percentage neighborhoods, no association was observed (aOR=1.14, 95%CI:0.99-1.30). Conclusions: This study identified neighborhood and individual-level SDOH that were associated with cognitive impairment among KT candidates. These findings may help clinicians identify at-risk candidates and provide cognitive screening and prehabilitation.

Social Determinants of Geriatric Syndromes among Patients with End-Stage Kidney Disease	Nan-Su Huang	Ilana Mittleman MPH, Jingyao Hong MHS, Yiting Li MPH, Nidhi Ghildayal PhD, Sunjae Bae MD PhD, Byoungjun Kim PhD, Anoma Nellore MD, Nicole M. Ali MD, Aarti Mathur MD PhD, Dorry L. Segev MD PhD, Mara A. McAdams-DeMarco PhD	NYU Grossman School of Medicine	
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Background: Patients with end-stage kidney disease (ESKD) experience a high burden of geriatric syndromes such as cognitive impairment and frailty, which lead to poor quality of life. Unfavorable social determinants of health (SDOH) may elevate inflammation and dysregulate the immune system, contributing to these syndromes. Therefore, we quantified the associations between SDOH and cognitive impairment, frailty, and quality of life among ESKD patients. Methods: We leveraged 4,399 adult (?18 years) ESKD patients at kidney transplant (KT) evaluation in a prospective multi-center cohort study (2009-2025). We applied gradient boosting to identify key predictors and logistic regression models to quantify associations between individual- and neighborhood-level SDOH and cognitive impairment (Modified Mini-Mental State Examination score<80 or Montreal Cognitive Assessment score<18), frailty (Physical Frailty Phenotype), and poor quality of life (Kidney Disease Quality of Life [KDQOL]). Results: Among ESKD patients, 16% had cognitive impairment and 22% were frail; 17%, 18%, and 16% of patients reported poor disease-specific, physical, and mental KDQOL, respectively. Among individual-level SDOH, limited health literacy was associated with an elevated risk of cognitive impairment (adjusted odds ratio [aOR]= 2.91, 95% confidence interval [CI]: 1.98-4.29), frailty (aOR=1.91, 95%CI: 1.45-2.51), and poor KDQOL. Furthermore, ESKD patients living in neighborhoods with a high percentage of households receiving public assistance had an elevated risk of cognitive impairment (aOR=1.74, 95%CI: 1.27-2.37), frailty (aOR=1.39, 95%CI: 1.05-1.84), poor disease-specific KDQOL (aOR=1.46, 95%CI: 1.04-2.03), and poor physical KDQOL (aOR=1.63, 95%CI: 1.18-2.25). Conclusions: This study identified individual- and neighborhood-level SDOH that were associated with cognitive impairment, frailty, and quality of life among ESKD patients. These findings may help clinicians identify at-risk patients and provide physical and/or cognitive prehabilitation to improve KT-related outcomes, including health-related quality of life.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Neighborhood Disadvantage and Cognitive Function Among Potential Kidney Transplant Candidates	Natalie Strohmayer	Nan-Su Huang, Jingyao Hong, Yiting Li, Nidhi Ghildayal, Nicole M. Ali, Aarti Mathur, Anoma Nellore, Dorry L. Segev, Mara A. McAdams-DeMarco	NYU Grossman School of Medicine	

Background: Nearly 40% of kidney transplant (KT) candidates have cognitive impairment. Neighborhood disadvantage is associated with earlier onset of cognitive impairment in the community-dwelling population and may contribute to accelerated cognitive decline among vulnerable KT candidates, though the magnitude of this association is unknown. Methods: We leveraged a multi-center cohort of 3,580 English-speaking adults (?18 years) enrolled at KT evaluation (2009-2025) who had cognitive assessments [Montreal Cognitive Assessment (MoCA) or Modified Mini-Mental State exam (3MS)]. Neighborhood disadvantage was derived at the ZIP code level. We quantified the associations between neighborhood disadvantage and its domains with global cognitive function scores (linear regression) and cognitive impairment (modified Poisson regression). Results: Neighborhood disadvantage was associated with worse global cognitive function (difference=-0.04 points;95% confidence interval[CI]=[-0.08,-0.005]) and higher prevalence of cognitive impairment (adjusted prevalence ratio[aPR]=1.12; 95%CI[1.02,1.23]). Housing instability (difference=-0.09;95%CI[-0.13,-0.04]), social fragmentation (difference=-0.10;95%CI[-0.14,-0.07]), built environment disadvantage (difference=-0.05;95%CI[-0.10,-0.004]), and poverty (difference=-0.06;95%CI[-0.10,-0.02]) were associated with worse cognitive function. Housing instability (aPR=1.17;95%CI[1.03,1.32]) and social fragmentation (aPR=1.20;95%CI[1.10,1.32]) were associated with higher prevalence of cognitive impairment. Discussion: Neighborhood disadvantage is significantly associated with worse cognitive function and a higher risk of cognitive impairment among KT candidates. Particularly, the social fragmentation and housing instability domains are associated with worse cognitive outcomes. Clinicians may consider targeted screening and early cognitive intervention for potential KT candidates who are at higher risk due to these factors.

The Impact of Paid Family Leave on Postpartum A1C after Gestational Diabetes: A controlled interrupted time series analysis	Natalie Boychuk	Jennifer Hutcheon, Teresa Janevic	Columbia University Mailman School of Public Health	
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Paid family leave (PFL) is linked with improved infant health and increased breastfeeding and infant/maternal postpartum healthcare use, but prior research has not examined its relationship with postpartum physical health. Hemoglobin A1C represents average 3-month blood glucose and may act as a signal of future cardiometabolic risk. NY implemented PFL in January 2018, presenting an opportunity to test the impact of the policy. To determine the impact of New York's PFL policy on postpartum cardiometabolic health, we constructed a controlled interrupted time series of A1C 4-12 months postpartum among privately-insured women with gestational diabetes. We used linked NYC birth, hospital discharge, and A1C registry data from 2014-2019 (n=4,578). We classified deliveries as pre- (January 2014-December 2017) or post- (January 2018-March 2019) PFL. We identified women who were employed during pregnancy as the treatment group and selected women who were unemployed as a control series. We used quantile segmented regression to assess level/slope changes in median A1C and A1C percentiles across the distribution, adjusting for race, education, parity, and nativity. We found that 78.5% of women were employed during pregnancy and their median A1C was 5.5 (IQR: 0.5). Privately insured women who were employed during pregnancy experienced an immediate 0.09 percentage point reduction in median A1C post- vs. pre-PFL compared to controls (95% CI: -0.25, 0.02) but no slope changes by treatment with the policy. PFL was associated with a 0.16% reduction in the 10th percentile of A1C between treatment and control groups, but the impact of the policy on higher ends of the A1C distribution were not significant. These findings suggest that PFL may have impacted postpartum A1C among privately insured postpartum women immediately after policy implementation, particularly at the lowest end of the A1C distribution. Future research should elucidate long-term policy effects and explore differential effects within sociodemographic subgroups.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Bidirectional Associations Between PTSD Symptoms and Opioid Misuse in a 9/11-Exposed Cohort	Nicholas Millet		NYC Department of Health and Mental Hygiene	
Background: Opioid misuse remains a major public health concern and is prevalent among individuals with trauma-related mental health conditions, including post-traumatic stress disorder (PTSD). Although PTSD and opioid misuse frequently co-occur, less is known about how these conditions influence one another over time or whether these relationships differ by sex in trauma-exposed populations. Methods: Among 24,154 World Trade Center Health Registry enrollees, we examined bidirectional relationships between PTSD symptoms and opioid misuse across two survey waves conducted approximately four years apart (2015-2016 and 2020-2021). PTSD symptoms specific to 9/11-related experiences were assessed using the PTSD Checklist and opioid misuse was defined as self-reported use of prescription pain medications in greater-than-prescribed amounts or without a prescription. Cross-lagged panel models were used to evaluate whether PTSD symptoms predicted later opioid misuse and whether opioid misuse predicted later PTSD symptoms, adjusting for prior levels of each condition and sociodemographic and health-related covariates. Results: PTSD symptoms and opioid misuse were stable over time and positively associated within each survey wave. Overall, higher PTSD symptoms were associated with an increased likelihood of subsequent opioid misuse ($\beta=0.047$, $SE=0.013$, $p<0.001$), and opioid misuse predicted later PTSD symptoms ($\beta=0.022$, $SE=0.003$, $P<0.001$). Associations differed by sex: among females, opioid misuse predicted later PTSD symptoms, whereas PTSD symptoms did not predict later misuse; among males, both pathways were significant. Adjustment for depression attenuated associations of PTSD symptoms with later opioid misuse but did not meaningfully change associations of opioid misuse and later PTSD symptoms. Discussion: These findings suggest that PTSD symptoms and opioid misuse may reinforce one another over time, with differences by sex noted. Results underscore the importance of integrated, trauma-informed prevention and treatment approaches that address both PTSD and substance misuse among trauma-exposed populations.				

Reduction in Fatal Overdose Following Implementation of a Harm Reduction Strategic Plan in the New York City Shelter System	Nirah Johnson	Kelly Doran, Charlizé Durrant, Anne Aronson, Omolola Onayinka, Olivia Rothseid, Fabienne Laraque, Bennett Allen	Other	NYC Department of Homeless Services
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Background: Drug overdose is the leading cause of death among people experiencing homelessness in New York City (NYC). Traditional substance use treatment may not consistently reach unhoused populations due to fragmented contact with health systems. To enhance prevention efforts, the NYC Department of Homeless Services (DHS) implemented the Harm Reduction in Shelters Strategic Plan in 2023. The Plan universalizes the delivery of evidence-based harm reduction interventions among shelter clients and is organized around: staff training and technical assistance in overdose prevention and response; dedicated harm reduction staff in shelters; on-site risk reduction counseling, safety planning, and linkage to care; and shelter environment improvements. Methods: The study period was January 2023-December 2025. Data were drawn from DHS administrative records capturing services delivered to shelter clients and staff. We summarized implementation and utilization of interventions using descriptive statistics. Results: From 2023-2025, DHS provided harm reduction and overdose prevention training to 11,180 staff across 453 shelters. DHS coordinated resources to place harm reduction staff at more than 40 shelters reporting the highest numbers of overdose. To ensure prevention services were provided to clients at highest risk systemwide, DHS hired four centrally based harm reduction staff who conducted outreach following non-fatal overdoses by telephone or in person. Of 2,354 clients reached, 1,761 (75%) received risk reduction counseling, 525 (22%) completed safety planning, and 1,081 (46%) received coordination of at least one referral, including substance use (19%), medical (13%), mental health (10%), and syringe service programs (14%). Discussion: The Plan aimed to ensure consistent, on-site delivery of overdose prevention services in shelters. Overdose deaths among sheltered clients in NYC decreased by 61% from FY22-FY25. Further research is needed to estimate the Plan's impact on overdose mortality, as well as staff and client behaviors and substance use treatment uptake.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Spatial Patterns of HIV Service Need, Availability, and Transit Access in New York City	Nodar Kipshidze	Louis Lopez, Maiko Yomogida	Columbia University Mailman School of Public Health	

Background Approximately 91,300 people were living with HIV in New York City in 2024. We aimed to characterize the spatial distribution of HIV service need and gap among people with HIV in NYC, assess concordance between need and provider availability across service domains, and explore whether public transit accessibility and commute time may be associated with service gap. **Methods** Using data collected between 2018 - 2024 from the Community Health Advisory & Information Network (CHAIN) study, an ongoing prospective cohort study of people with HIV in New York, need and utilization were assessed across seven service domains: comprehensive medical care, medical case management, non-medical case management, professional mental health services, food services, nutritional counseling, and rental assistance. Measures were aggregated at both ZIP code and United Hospital Fund (UHF) neighborhood levels. For each spatial unit, we estimated mean public transit commute time (subway and bus) to the 10 nearest Ryan White Part A-funded providers for each domain. **Results** ZIP-code-level estimates were unstable due to sparse observations, so analyses focused on UHF neighborhoods. Several services showed spatial patterning. For example, 50-60% of participants in the South Bronx reported needing medical case management, whereas food service need was consistently high across boroughs. Transit accessibility varied substantially: average commute times reached 75-90 minutes in parts of Brooklyn, Queens, and Staten Island, while some Manhattan neighborhoods had ?10 providers within 15 minutes. **Conclusion** Service needs appeared to vary by domain rather than following a single geographic pattern. Preliminary findings suggest that some high-need areas, such as the South Bronx, may have providers within relatively short commute times (15-30 minutes), indicating that proximity alone may not fully explain unmet need. Future work should examine whether transit burden, perceived accessibility, or structural barriers influence service utilization.

Staff perceptions of the new medication abortion service at the New York City Health Department's Sexual Health Clinics: What works, and what needs improvement, at the nation's first public clinics to offer abortion services	Paula Kibuka Musoke	NYC Department of Health and Mental Hygiene
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In 2023, after the U.S. Supreme Court decision *Dobbs v. Jackson* eliminated federal protections for abortion rights, the NYC Health Department implemented no-cost medication abortion services (MAB) in its public sexual health clinics (SHCs.) MAB is accessible by walk-in or appointment to anyone age 12 years and older. Staff beliefs and experiences during MAB implementation have been examined in previous research, but this study offers a unique perspective on expansion and application to municipally-operated clinics presented by the inclusion of abortion care in a public health clinical setting. We conducted in-depth interviews from June to October 2024 with staff in SHCs offering MAB. We asked participants about their decision to participate in MAB delivery, resources available during implementation and support received from leadership. Interviews were conducted on the phone or online, recorded, and transcribed verbatim. Data analysis focused on observations that will improve the clinical experience for patients. Our sample included 24 clinical and support staff across three sites. Participants were overwhelmingly supportive of the inclusion of MAB in the services provided by the SHCs. They perceived accessibility and the compassionate, nonjudgmental care they provide as the main aspects of the service that worked well. Participants named multiple challenges to providing MAB services in their setting. The length of time needed for the visit, understaffing and the fact that only clinicians could provide MAB counseling contributed bottlenecks. Public health experts have long called for integration of abortion care into the services provided in the public sphere. The NYC Health Department's commitment to providing this care has been revolutionary and necessary. Eliciting and exploring staff perceptions can be used to improve NYC's service. It can also guide internal quality improvement as well as provide a roadmap for other municipal and state health departments interested in integrating MAB services.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Multivariable Determinants of Heart Disease Diagnosis in a Clinical Referral Population: Evidence from the Cleveland Dataset	Peiran Wang		NYU School of Global Public Health	

Background Heart disease remains the leading cause of mortality in the United States, yet uncertainty remains regarding the relative contribution of demographic, metabolic, and functional cardiac indicators in clinical diagnosis. Public datasets that integrate these domains are rarely analyzed using interpretable, multivariable approaches suitable for epidemiologic inference. This study evaluates key determinants of heart disease diagnosis using a clinically rich referral dataset. **Methods** We conducted a cross-sectional analysis of 303 adults evaluated for suspected coronary artery disease using the UCI Cleveland dataset. The outcome was the presence of heart disease (binary). Predictors included demographic (age, sex), metabolic (cholesterol, blood pressure, fasting glucose), and functional cardiac indicators (exercise-induced angina, maximum heart rate, ST depression, ECG findings, and thallium perfusion imaging). Multivariable logistic regression was specified a priori and compared with machine learning models (SVM, decision tree, neural network). Model performance was evaluated using accuracy, F1-score, and area under the ROC curve (AUC). **Results** Logistic regression demonstrated strong predictive performance (accuracy = 0.907, F1 = 0.897, AUC = 0.943), comparable to or exceeding machine learning models (SVM AUC = 0.947; decision tree AUC = 0.903; neural network AUC = 0.872). Functional and imaging-based cardiac indicators, including exercise-induced angina, ST depression, and thallium perfusion abnormalities, showed the strongest associations with heart disease presence, while traditional metabolic indicators demonstrated weaker effects. Feature importance analyses supported the dominant role of exercise and imaging-based variables. **Discussion** In a clinical referral population, functional cardiac measures and imaging indicators may provide greater diagnostic value than traditional metabolic risk factors. Logistic regression achieved high predictive performance while maintaining interpretability, supporting its utility for clinical decision-making. Findings are limited by cross-sectional design, referral bias, and historical data collection. Nevertheless, this study demonstrates the value of reproducible, interpretable modeling for identifying key determinants of heart disease diagnosis.

Enhancing Syndromic Surveillance for Micromobility-Related Injuries in NYC: Development and Implementation of Refined Syndrome Definitions	Pierre Amiel	Lawrence Fung, Ramona Lall, Anna Caffarelli	NYC Department of Health and Mental Hygiene
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Background The New York City Health Department's syndromic surveillance system captures emergency department visits citywide, including chief complaints and diagnosis codes. Historically, injury data from increasing micromobility use were mainly limited to police crash reports. Syndromic surveillance adds a data source to determine the burden of these injuries in NYC. Initial definitions only included scooters and e-bikes but were refined and expanded in 2025 to add devices such as mopeds and motor scooters. **Methods** The syndromic surveillance team from the Bureau of Communicable Disease and the Bureau of Environmental Surveillance and Policy (injury and violence prevention) led the refinement, combining expertise. We developed targeted keyword and diagnosis code criteria for device categories (e.g., scooter, e-bike, e-skateboards, or mopeds), iteratively validating definitions through manual review of chief complaint, admit reason, triage note, and diagnosis fields. We compared the original e-bike and e-scooter syndrome with new definitions across scenarios (with or without triage notes and diagnosis codes) to quantify case count changes. **Results** The refined definitions improved specificity in our original syndromes. Case counts decreased by 50% for scooter and electric bike categories by improving keywords, including diagnosis codes, and removing triage note-only cases which we identified as an unreliable field. The updates yielded clearer temporal trends for each individual device type. Expanded surveillance on motorcycles allowed us to capture previously unclassified injuries by adding new keywords and also including diagnosis codes. Searching for diagnosis codes led us to identifying approximately 15% more motorcycle crashes. **Discussion** The refined definitions strengthened surveillance, improving clarity and specificity. Epidemiologists can now monitor each device-specific injury trend, enabling targeted prevention efforts. Our approach exemplifies moving 'from context to data to impact' by making surveillance data more actionable.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
SARS-CoV-2 anti-Nucleocapsid Seroprevalence in Two NYC Pregnancy Cohorts	Pranathi Srirangam	Bushra Amreen, Yasemin Schmitt, Maeve McClure, Veerle Bergink, Frederieke Gigase, Anna-Sophie Rommel, Jia Chen, Corina Lesseur, Lotje de Witte, M Mercedes Perez-Rodriguez	Icahn School of Medicine at Mount Sinai	

Background Several years after the onset of the COVID-19 pandemic in March 2020, SARS-CoV-2 antibody seroprevalence in the general population continues to evolve. Characterizing temporal patterns of seroprevalence may clarify the epidemiological impact and downstream health effects of COVID-19. In this study, we examined anti-Nucleocapsid (anti-N) seroprevalence in two New York City-based pregnancy cohorts, the Generation C (GenC) study, and the Generation C-SF (GenCSF) study to assess change over time. **Methods** The GenC study enrolled participants from April 2020 to February 2022, while the ongoing GenCSF study has enrolled participants since February 2022. In both cohorts, we measured SARS-CoV-2 anti-N antibodies in maternal plasma collected at delivery using a Luminex bead-based immunoassay. Sociodemographic and clinical characteristics were obtained via EMR review. SARS-CoV-2 infection history and vaccination data were obtained through participant self-report from questionnaires in addition to EMR review. **Results** SARS-CoV-2 anti-N antibodies were measured in 231 GenC participants (2020-2022 deliveries) and 169 non-overlapping GenCSF participants (2022-2024 deliveries). Anti-N seropositivity was 39.8% in GenC and 88.7% in GenCSF. Evidence of prior COVID infection was 54.1% in GenC and 78.7% in GenCSF. COVID-19 vaccination prior to delivery was 70.1% in GenC and 95.8% in GenCSF. **Discussion** Early in the pandemic, anti-Spike (anti-S) IgG seropositivity was used for surveillance to determine SARS-CoV-2 infection prevalence. However, anti-N IgG seropositivity replaced anti-S following spike-based COVID-19 vaccine rollout. Mounted antibody response upon SARS-CoV-2 infection due to vaccination, repeated infections, and COVID variant-specific traits likely contributed to the increase in anti-N seroprevalence in the general population. Antibody immunoassays are now less reliable for determining infection timing. PCR or antigen-based testing at the time of illness may be necessary to establish infection status in population-based studies.

Association Between Comorbidity Burden and Immune-Related Adverse Events in Patients Receiving Immune Checkpoint Inhibitors	Pratham Tamakuwala	Ziyan Hong Dr. Benjamin Bates	Rutgers School of Public Health
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Background: Immune checkpoint inhibitors (ICIs) have revolutionized oncology, though immune-related adverse events (irAEs) remain a significant concern. Medical complexity may influence irAE prevalence and severity. We assessed the impact of baseline comorbidity burden on the risk of developing an irAE within six months of ICI initiation. **Methods:** Using electronic health record data from a New Jersey healthcare system, we identified a retrospective cohort of cancer survivors receiving first-line ICI therapy with at least one clinical visit prior to documented treatment. Comorbidity burden was defined by the Charlson Comorbidity Index (CCI) as 0, 1, or ≥ 2, excluding cancer diagnoses. The primary outcome was an irAE diagnosis that required treatment with steroids. Patients were followed for 6 months or until death. Cox proportional hazards models assessed the association between CCI and irAE risk, adjusting for age, sex, and race. **Results:** Among 426 patients (mean age 68 [(SD $\hat{A}$ ±13.5), 56% female]), 274 patients reported with CCI 0, 89 patients with CCI 1, and 63 patients with CCI ≥2. In the multivariable Cox model, using CCI 0 as the reference group, the risk of an irAE for CCI of 1 and ≥2 were HR 2.45 (95%CI 1.34 - 4.48) and HR 1.68 (95%CI 0.77-3.66), respectively. Neither age, sex, nor race was associated with risk of irAEs. **Discussion:** We found that the presence of comorbidities as documented in HER encounter diagnoses were associated with increased risk of irAE requiring treatment within 6 months, though this was only statistically significant for CCI=1 and not ≥2. Limitations include potential misclassification of comorbidities and outcomes and inability to differentiate irAE severity beyond initiation of a steroid. These findings suggest that comorbidities may influence risk of developing a clinically significant irAE, though further refinement of study design and outcome ascertainment is needed.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Domestic Violence Syndromic Surveillance 2021-2025	Priya Stuart	Ariel Spira-Cohen Catherine Stayton Josephina Matteson	NYC Department of Health and Mental Hygiene	

Background: Domestic violence (DV) and abuse are underrecognized health issues, partly due to challenges in DV measurement, patient disclosure, and health care provider documentation. DV encompasses multiple tactics and patterns of behavior that lead to barriers in capture including medical coding limitations, provider-patient power dynamics, and structural inequities. During the COVID-19 pandemic, NYC Health operationalized a preliminary DV syndrome in its Syndromic Surveillance System; at the time, health care providers and epidemiologists interpreted the results as an undercount. This effort improves the syndrome to better capture DV-related emergency department (ED) visits in NYC. Methods: NYC Health's syndromic surveillance system records chief complaints and diagnosis codes for all ED visits citywide. 2021-2025 ED visits were processed in SAS to identify visits either by DV-related diagnosis codes, chief complaint, or both. DV Syndrome refinements resulted from iterative manual reviews of the chief complaint, incorporating common misspellings and additional search terms. Visit counts were validated by comparing with NY Statewide Planning and Research Cooperative System (SPARCS) hospital billing data using diagnosis codes for the same years. Syndrome counts were stratified by patient demographics and examined over time. Results: The preliminary DV syndrome identified 4,670 annual average visits, while SPARCS data identified over 10,000 visits from 2021-2025. After syndrome refinement, counts increased by 62%, capturing 7,570 annual average visits. Over half of visits were among children under 12 (29%) and people age 25-44 (32%). Visits peaked in May and October. Discussion: With an improved syndrome, DV-related ED visits can be more accurately tracked in real time, and leads to more valid epidemiologic analyses. Healthcare, social services, and law enforcement often diverge in defining and documenting DV. Improved understanding of ED utilization for DV can be a novel data input guiding prevention and intervention; demographic patterns may highlight structural factors that shape inequitable health outcomes.

Assessing short-term health outcomes among participants enrolled in a 6- month food voucher program in East Harlem	Rachel Librett	Adam Wohlman Dr. Christina Nieves Yorca Madera	NYC Department of Health and Mental Hygiene
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Background: Health inequities are caused, in part, by unjust systems and policies that have created segregated neighborhoods and concentrated poverty. As a result, many communities of color face significant economic and health challenges. Food insecurity is directly caused by poverty and is more prevalent in low-income, foreign-born communities of color with limited access to public food benefits. Food insecurity is also associated with increased risk of diet-related disease including cardiovascular outcomes, diabetes, cancers, and chronic stress. The East Harlem Food Voucher Program seeks to improve household food security among foreign-born residents through grocery store vouchers. Previous program evaluations found a significant improvement in short term food security among participants who received food vouchers for 2 months. The program is now investigating whether providing food vouchers to improve household food security may also be an effective strategy to improve health. Methods: Food vouchers valued at \$10 were distributed to program participants biweekly for six months. Participants completed six surveys between April and September 2025 on the following topics: shopping, diet, food security, financial stress, healthcare. Paired t-tests and McNemar tests were used to evaluate change in food security score, food security status, reported general and diet health status, and chronic disease management. Results: 42 residents participated in the program, and they redeemed 99% of distributed vouchers. Over 6 months, participants' food security scores significantly improved on average ($p < 0.0001$). Most participants (95%) showed an improvement in self-reported general health status ($p < 0.0001$) and 60% reported improvement in diet health ($p < 0.0001$). Among nine participants with a chronic condition, eight reported improved disease self-management. Conclusions and Implications: Taking action to improve household food security, by addressing poverty as the root cause of insecurity, may also be an effective strategy for improving the health and diet health of foreign-born residents experiencing food insecurity.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Temporal Accessibility in Digital Women's Health: Engagement Patterns from 13,997 Days of Mobile Health Data	Rhyann Clarke	Rhyann Clarke, Samia Shahnawaz, Jovita Rodrigues, Kyle Landell, Matteo Danieletto, Jannes Jegminat, Alex Kim, Klaren Ng, Gerard Ona, Christine Olivo, Ipek Ensari	Icahn School of Medicine at Mount Sinai	

Background: Women's health conditions remain underrepresented in digital epidemiology despite documented healthcare inequities affecting women in urban settings. Chronic pelvic pain disorders (CPPDs) affect 26% of women aged 18-50 in the U.S., yet remain poorly understood due to inadequate documentation. Adherence to long-term digital health studies declines significantly (from 73.6% to 28% over 7 months), limiting population-level insights. We investigate predictors of sustained engagement via digital health self-reporting to inform design of equitable mobile health (mHealth) surveillance systems. **Methods:** We analyzed 13,997 days of data from a larger observational study with 131 female participants with CPPDs and 72 healthy controls residing in NY and vicinity. Participants tracked daily symptoms (e.g., pain, physical and psychological function, sleep) using our study App for 90 days. We investigated latent engagement patterns via functional mixture models (FMMs) and examined predictors of temporal consistency and adherence in mHealth engagement, including disease burden as a potential barrier (see Table 1). **Results:** FMMs identified four distinct intra-day engagement clusters. Higher variability in engagement time (SD=2.9-4.1 hrs; Clusters 1&2) showered lower adherence (41-60%), whereas lower variability (SD=1.7-2.0 hrs; Clusters 3&4) corresponded with higher adherence (85-95%). Later-day engagement was the strongest predictor of consistency, independent of pain severity or CPPD status, and predicted adherence, with a 20% difference for stable vs. inconsistent trackers. The interaction between evening engagement and CPPD status was also significant and 15.3% higher than morning tracking (see Table 1). **Discussion:** Our results indicate: 1) habit formation alone is insufficient for sustained mHealth engagement, 2) CPPD disease burden itself does not hinder engagement, and 3) prioritizing habit and personalized engagement windows (vs fixed-time assessments) can improve temporal accessibility and data quality in mHealth research and clinical settings. Strategies promoting routine consistency and temporal personalization can reduce mHealth fatigue and improve retention, enhancing representativeness across diverse populations.

Geographic and Access-Related Disparities in Pediatric Dental Caries: Community-Based Surveillance in Nassau County, New York	Rinky Botleroo	Haoyun Ye, Chanapong Rojanaworarit	Hofstra University, School of Health Sciences, Population Health	
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Background: Dental caries remains one of the most prevalent chronic conditions among children in New York State and disproportionately affects socioeconomically disadvantaged communities. Despite statewide prevention initiatives, subcounty-level disparities in disease burden and access to preventive services remain insufficiently characterized. This study examined distribution of untreated dental disease and related risk indicators among elementary school children in a suburban New York county. **Methods:** We analyzed standardized oral health screening data from 1,044 elementary school children participating in a large community-based dental outreach program in Nassau County in 2025. Schools were selected using socioeconomic indicators to prioritize underserved populations. Trained dental professionals conducted oral examinations of multiple oral conditions. Other variables were recorded at screening. Prevalence estimates were calculated, and the associated factors of untreated dental caries and large carious lesions were analyzed. **Results:** Overall, 34.8% of children had evidence of dental caries, and 14.4% presented with large untreated lesions. Caries prevalence varied significantly across geographic areas within the county (p=0.001). Children without a prior dental visit had a significantly higher prevalence of untreated caries compared to those who received care (p=0.017). Poor oral hygiene was strongly associated with large cavitated lesions (p<0.001); 61.3% of children classified as having poor hygiene had large untreated caries. These findings demonstrate substantial within-county heterogeneity in pediatric oral health burden. **Conclusion:** Pronounced disparities in untreated dental disease persist within socioeconomically prioritized school populations in a suburban county. Geographic variation and differences by prior dental care utilization suggested ongoing inequities in access to preventive services. Embedding systematic surveillance within community-based outreach generates actionable baseline data to support longitudinal monitoring, evaluation of program effectiveness, and equity-focused public health planning. Integration of screening with referral pathways for children identified with urgent needs can strengthen continuity of care and inform targeted, school-based oral health interventions in underserved communities.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Increasing Physical Activity and Socialization on Open Streets	Rivka Batlan	Teddy Swenson, Justin Coleman	NYC Department of Health and Mental Hygiene	

Background Physical activity (PA) is a significant determinant of health, yet many people do not meet national recommendations. Open Street (OS) initiatives that close streets to traffic increase opportunities for PA and socialization. The NYC Health Department's Active Design program worked with StreetLab to increase PA and socialization after-school by programming a school-adjacent OS with an obstacle course, chalk drawing, and block-building tables. Methods The researchers used the validated System for Observing Play and Recreation in Communities tool to assess PA and socialization on the OS on four afternoons with programming ("intervention days") and two when the street was barricaded from cars, but unprogrammed ("control days"). The OS included 11 zones, observed six times per day. Researchers recorded the perceived age, sex and activity (sedentary-solo, sedentary-social, walking, vigorous) of each person, and whether the zone was equipped, supervised, or programmed. Chi-square tests of independence examined the relationships between intervention, activity type, and age. Odds ratios examined the probability of engagement in programmed zones on intervention vs control days. A Kolmogorov-Smirnov test assessed whether participant time patterns varied by intervention vs control. Results On intervention days, participants were more likely to engage in PA (OR = 3.98; 95% CI: 2.21-7.18, P < .001), and socialization (OR: 110.23; 95% CI: 24.38-498.34, P < .001) vs control days. OS participation was greater in programmed zones vs unprogrammed zones for youth (OR = 21.70; 95% CI: 8.93-52.78, P < .001) and adults (OR = 7.05; 95% CI: 3.81-13.03, P < .001). People stayed later at the OS on intervention days vs. control days (D = .16, P < 0.01). Discussion Intervention days had a significant increase in OS attendance; time spent at the OS; and PA and socialization levels vs. control days. Additional programming could meaningfully increase PA and socialization in under-utilized Open Streets.

Urinary Organophosphate Metabolites and Laboratory-derived Phenotypic Aging Acceleration in U.S. Adults: Evidence from NHANES 1999-2018	Rubaiya Anika	Dr. Stephanie Tuminello PhD, Dr. Emanuela Taioli MD, PhD, Matthew Untalan MPH	CUNY Graduate School of Public Health	
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Background: Biological aging, quantified through molecular and physiological biomarkers, provides a dynamic assessment of the aging processes. Accelerated aging is defined as biological age exceeding chronological age and is associated with increased morbidity and mortality. Prior studies suggest that environmental exposures influence biological aging, but few have evaluated organophosphate pesticide exposure and phenotypic age acceleration in a nationally representative sample. We hypothesized that organophosphate exposure would be positively associated with accelerated phenotypic aging. Methods: We examined data from 1999-2018 National Health and Nutrition Examination Survey (NHANES) cycles to determine the relationship between organophosphate pesticide exposure and aging acceleration. Urinary levels of 6 Dialkyl- phosphate (DAP) metabolites were used to assess organophosphate (OP) exposure; participants were considered exposed if they had urinary OP value above the highest lower limit of detection (LLOD), as reported across 1999-2018 NHANES cycles. Phenotypic Aging was estimated using nine clinical laboratory biomarkers: albumin, creatinine, glucose, C-reactive protein, lymphocyte percentage, mean cell volume, red cell distribution width, alkaline phosphatase, and white blood cell count. PhenoAgeAccel (PAA) was derived as the residual from regressing PhenoAge on chronological age. The relationship between OP and PAA was assessed using survey-weighted linear regression adjusted for sex, race/ethnicity, and income. Data cleaning and biological age calculation were performed using R v4.4.2 while survey-weighted linear regression analysis was done in SAS v9.4. Results: In total, 8,989 participants with complete urinary, sociodemographic and laboratory biomarker data were included in this study. Participants had mean chronological age of 49.45 years (SD = 18.25 years); while mean phenotypic age was 48.30 (SD = 20 years). After adjusting for confounders, individuals with OP urinary metabolites had statistically significantly higher PhenoAgeAccel (? = 0.65; 95% CI: 0.14-1.16). Discussion Hence integrating phenotypic age biomarkers into electronic health records and public health policy could offer powerful tools in environmental epidemiology.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Association of Participation in Arts and Cultural Activities with Mental Health Among US Adults	Runhan Chen	Jinrui Fang, Diana Margot Rosenthal, Stephanie H. Cook, Melody S. Goodman, Jemar R. Bather	NYU School of Global Public Health	

Poor mental health is a growing public health challenge, yet many people face barriers to traditional care. Arts and cultural engagement have been proposed globally as a promising strategy to promote well-being, but evidence from nationally representative US data remains limited. We analyzed data from 9,215 adults in the December 2024-January 2025 wave of the Household Pulse Survey to examine whether arts participation and perceived access to arts and cultural activities were significantly associated with life satisfaction, depression, and anxiety. Arts participation was measured with a 0-4 score, and perceived access was based on agreement with the availability of opportunities in one's community. Outcomes included standardized life satisfaction (0-10 scale) and symptoms of depression and anxiety, assessed using validated two-item screeners (Patient Health Questionnaire-2 and Generalized Anxiety Disorder-2). We used survey-weighted generalized estimating equations to estimate associations, adjusting for demographic and socioeconomic characteristics. In fully adjusted models, higher arts participation was associated with greater life satisfaction (? : 0.06, 95% CI: 0.01, 0.10) and lower prevalence of depression (prevalence ratio [PR]: 0.85, 95% CI: 0.74, 0.98), although its relationship with anxiety was attenuated and not statistically significant (PR: 0.91, 95% CI: 0.82, 1.01). Perceived access showed consistent associations, including higher life satisfaction (? : 0.55, 95% CI: 0.44, 0.65), lower depression (PR: 0.44, 95% CI: 0.35, 0.55), and lower anxiety (PR: 0.51, 95% CI: 0.42, 0.62). Although the effect of arts participation on life satisfaction was modest in size, its consistency across models underscores its potential population-level importance. These findings highlight the importance of arts engagement to support positive mental health. Strengthening community-level access to arts and culture may represent a scalable strategy for promoting well-being and reducing mental health disparities.

A Randomized Survey Comparing the Impact of Two Videos on Organ Donation Registration in New York State	Sabrina Weiler	Thaddeus Bhagan, Vidhi Patel, Christian Nouryan, Renee Pekmezaris	Northwell Health, Feinstein Institutes for Medical Research	
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Background: New York State has one of the lowest organ donor (OD) registration rates in the United States, ranking 47th out of 52 states and territories, and faces a 51% enrollment rate compared to the 64% national average as of 2025. Nationwide, racial and ethnic minority groups make up 62% of the waiting list but only 31% of registered organ donors Methods: This study randomly assigned one of two online videos to unregistered potential OD registrants in New York State. The goal was to identify an effective, easily administrable, and affordable intervention. This study compared effectiveness of the two educational OD video interventions in increasing OD registration intention. Also collected were data on demographics, knowledge, religious, and characteristics to identify correlations and trends. Participants were shown one of two videos and surveyed. Respondents were excluded if they were already registered as organ donors. Participants were compensated \$5 for their time and effort. Results: From 1335 participants, 678 were randomized to view video A, and 657 to view video B. Both videos showed similar effectiveness in increasing OD registration intent, with 36% and 38%, of survey participants, respectively, responding they were willing to register as organ donors post-video. Comparing outcomes for video A vs. video B: Hearing from an OD recipient was the most moving influence reported 46% vs. 44%. For religion, nonreligious reported a lower intent to register as organ donors, with 27% and 35%, while being very/somewhat religious (56% vs. 56%) and very/somewhat spiritual (66% vs. 68%) reported a higher intent to donate. A lack of knowledge surrounding organ donor registration was reported, specifically, less than half of participants (46% vs. 48%) reported knowing where to register. Conclusion: Future interventions should focus on increasing registration rates through targeting underrepresented groups and rectifying issues of lack of donor informedness.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
The NYC Health + Hospitals/Lincoln Emergency Department Asthma Program: A Preliminary Report on Program Implementation	Salihah Dick	Sydney Fernandez, Guiomar Basualdo, Cinthia Vasquez, Lara Rabiee, Akhila Mandadi, Robert Rock, Lauren Shiman	NYC Department of Health and Mental Hygiene	

BACKGROUND: To reduce pediatric asthma-related emergency department (ED) visits and improve outcomes for children in the Bronx, the New York City Health Department partnered with NYC Health + Hospitals/Lincoln to place two community health workers (CHWs) in the pediatric ED at Lincoln Medical Center. These CHWs provide caregivers of patients presenting for an asthma-related visit with asthma education and care coordination. This report explores program implementation and the effectiveness of efforts to connect patients to longitudinal services using descriptive analyses. **METHODS:** Families presenting with a child experiencing an asthma exacerbation received an asthma assessment, asthma self-management education and tools, linkage to primary care, outpatient case management, integrated pest management, and other referrals. **RESULTS:** The caregivers of all 108 referred patients agreed to the service. Most patients identified as Black/African American (59%) or Hispanic/Latino (32%); 51% resided in the South Bronx, in 4 zip codes (10455, 10451, 10454, and 10456). Asthma severity was categorized as mild-moderate (61%) or severe (27%); most had high hospital utilization with 19% reporting ≥5 visits and another 52% having 2-4 visits in the past year. Of the 134 social needs referrals, housing support (38%), financial assistance (13%), and food assistance (11%) were the most frequent. Of the 46% of patients who reported exposure to irritants, mold, or pests, 98% were connected to a home environmental trigger remediation program. Care coordination efforts resulted in follow-up primary care visits being scheduled for 82% of patients, and 24% were referred to Lincoln's outpatient CHW asthma case management program. **DISCUSSION:** These findings confirm the need for patients presenting to the ED with asthma to be connected to primary care and improved asthma education and management. This is a critical step towards the prevention of subsequent ED visits. Future analyses will assess the impact of our intervention on hospital utilization.

Physical Activity and Momentary Cognitive Performance Among Breast Cancer Survivors in Daily Life	Samantha Corley	Brent J. Small, Stacey B. Scott	SUNY Stony Brook Medicine	
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Background: Over 4 million breast cancer survivors live in the United States. Cancer-related cognitive impairment (CRCI) is a distressing experience reported by many breast cancer survivors (BCS). Physical activity may ameliorate CRCI, but a majority of BCS are not meeting the American Cancer Society (ACS) guidelines of moderate to vigorous physical activity (MVPA) shown by retrospective reports. This study aimed to profile female BCS's daily physical activity compared to ACS guidelines. Further, we aimed to examine the associations between self-reported MVPA and momentary cognitive performance in daily life. **Methods:** During a 14-day study, survivors were prompted 5 times daily on smartphones with processing speed and working memory tasks; each evening they self-reported their physical activity and fatigue. Participants also retrospectively reported on their physical activity using a widely used questionnaire. Multilevel models tested associations between cognitive performance and physical activity, covaried by age and fatigue. **Results:** The all-female BCS sample (N=46) was on average 17.15 months (SD=7.29) posttreatment for Stage I (26.09%) and Stage II (73.91%). They were predominantly White, non-Hispanic, middle-aged, and highly educated. A majority (78.26%) exceeded ACS guidelines. Survivors who reported more MVPA showed significantly worse working memory. None of the within-person relationships of MVPA with cognitive outcomes were statistically significant. Survivors who reported being more fatigued at the end of the day demonstrated significantly worse performance for working memory. **Discussion:** This study was the first to examine both same-day associations between MVPA and cognitive performance as well as individual differences amongst female BCS. Additional daily life research needs to be conducted during different timepoints post-treatment to help further understand this relationship and perhaps inform potential interventions among female BCS.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Trends in criminal legal involvement among NYC residents in substance use disorder treatment, 2016-23: an observational analysis.	Samantha Doonan	Sean Locke, Vanessa Drury, Shuo Chen, Rabiah Gaynor, Ellen Tryon, Zakiya Rose, Alyssa Claffee, Chinazo O. Cunningham & Ashly E. Jordan	Other	NYS Office of Addiction Services and Supports

Background. Criminal legal involvement is a social determinant of health. The criminal legal system is the largest referral source for substance use disorder (SUD) treatment. Despite similar rates of substance use by race/ethnicity, Black and Hispanic populations have higher rates of substance use-related criminal legal involvement compared to White populations. A better understanding of trends in criminal legal involvement among those in SUD treatment can inform policy and resource allocation to promote equitable SUD treatment outcomes. **Methods.** We analyzed annual person-level data for NYC residents in specialty SUD treatment (2016-23). We assessed the relative risk (RR) of criminal legal involvement by year (overall and race-stratified) with a modified Poisson regression approach with generalized estimating equations to account for within-person correlation. Adjusted models controlled for primary substance, age, sex, and race/ethnicity (except in race-stratified models). **Results.** Overall, there was a 15% reduction in the likelihood of criminal legal involvement in 2023 compared to 2016 among NYC residents in SUD treatment (adjusted RR: 0.85, 95% CI: 0.83, 0.86). In stratified analyses, Non-Hispanic (NH) White New Yorkers had a 26% reduction (aRR: 0.74, 95% CI: 0.71, 0.77), whereas Hispanic New Yorkers had a 14% reduction (aRR: 0.86, 95% CI: 0.85, 0.88), and Black New Yorkers had a 12% reduction (aRR: 0.88, 95% CI: 0.86, 0.90) in criminal legal involvement. **Discussion.** While reductions in the risk of criminal legal involvement occurred among New Yorkers in SUD treatment in 2016-23, reductions did not occur equitably across racial/ethnic groups. Findings suggest there may be structural factors contributing to differential reductions by race/ethnicity including differences in policing and/or criminal legal mandated SUD treatment by race/ethnicity. Further work to better understand SUD treatment pathways by race/ethnicity is essential for planning and investing in equitable and effective population health services.

Determinants of neonicotinoid exposure and its association with metabolic syndrome risk in children	Sandra India-Aldana	Alejandra Cantoral, Syam S. Andra, Carin A. Huset, Ryan W. Walker, Edgar Barrientos-Galeana, Shirisha Yelamanchili, Kitrina M. Barry, Lisa A. Peterson, Maria Jos�� Rosa, Robert O. Wright, Martha M. Tellez-Rojo, Damaskini Valvil, Elena Colicino	Icahn School of Medicine at Mount Sinai
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Background Neonicotinoids are the most widely used insecticides worldwide. Emerging evidence indicates potential cardiometabolic effects in humans, but exposure determinants remain under-investigated and studies in children are lacking. **Objective** We evaluated (1) socio-demographic and dietary determinants of neonicotinoid exposures, and (2) neonicotinoid exposure associations with metabolic syndrome (MetS) in children. **Methods** We studied 272 children aged 9.5 years (SD: 0.6) from the Programming Research in Obesity, Growth, Environment and Social Stressors (PROGRESS) cohort with measured urinary neonicotinoid metabolites. We used covariate-adjusted linear regressions to evaluate determinants of exposure and associations between neonicotinoid exposure as sum mixtures and individually (5-OH-IMI, CLO, 6-CINA, SUF) and MetS outcomes, including age- and sex-specific z-scores of waist circumference (z-WC) and systolic and diastolic blood pressure (z-SBP, z-DBP), high-density lipoprotein (HDL), glucose, triglycerides, insulin, and an overall cardiometabolic risk score. **Results** The top detected neonicotinoid insecticides were 5-OH-IMI and CLO with a detectability of 51% and 45% of samples, respectively. Maternal parity was associated with lower exposures while self-reported consumption of pozole and pineapple were linked to higher exposures ($p<0.001$). Higher 6-CINA exposure was associated with higher MetS score [$\beta=1.17$ (95%CI: 0.32, 2.01)], z-WC [$\beta=0.24$ (95%CI: 0.01, 0.47)], and triglycerides [$\beta=16.0\%$ (95%CI: 1.71, 32.3)], and lower good cholesterol HDL [$\beta=-4.27$ mg/dL (95%CI: -7.44, -1.10)]. Sex-stratified analyses showed that the neonicotinoid mixture and 6-CINA were associated with lower HDL levels and/or higher MetS score ($p<0.05$) in boys. In girls, 6-CINA was associated with higher z-SBP ($p<0.05$). Several sex-specific effects were identified particularly between neonicotinoid mixtures and lipids (HDL and triglycerides, p -interaction <0.05). **Conclusion** This is the first study examining the effects of neonicotinoids on MetS. Our findings suggest associations between 6-CINA and several MetS components and cardiometabolic risk score in children. Sex-divergent effects from neonicotinoids were also observed particularly in relation to lipids.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Examining the Use of Telehealth as a Catalyst for Patient-Provider Communication on Cancer Prevention in the United States	Saniah Reid	Saniah Reid, Jaedan Mann, Jasmine Taylor, Kirabo Nyanzi, MPH, Janille Williams, DrPH, MPH, Mary Valmont, PhD, Roudjessie Charles, MPH, Taskin Khan, Tolulope Atolagbe, MPH, Nazhifah Junia, MBBS, MPH, Kareem Bain, Dakota Woolcock, and Marilyn A. Fraser, MD	Other	Arthur Ashe Institute for Urban Health

Background: Telehealth has become an essential component of healthcare delivery in the United States, with the potential to improve patient-provider communication on cancer prevention. However, disparities in telehealth access may influence its impact on preventive care. Objective: To examine the association between telehealth use and the quality of patient-provider communication regarding cancer prevention. Methods: Data were analyzed from the Health Information National Trends Survey (HINTS) 7 (n = 7,278; March-September 2024). Telehealth utilization was the main predictor variable, and the outcome measures included frequency and quality of cancer prevention communication. Chi-square tests and descriptive analyses were performed using SPSS Version 29, with significance set at p < 0.05. Results: Telehealth users reported more frequent cancer prevention discussions compared to non-users ($\chi^2(2) = 300.7, p < .001$) and were more likely to consider cancer testing information "very valuable" ($\chi^2(3) = 44.9, p < .001$). Awareness of Multi-Cancer testing was significantly higher among telehealth users ($\chi^2(1) = 6.08, p = .014$). Telehealth use varied by region and income, with lower adoption among households earning <\$20,000 (17.1%) compared to those earning >\$100,000 (32.7%). Conclusion: Telehealth enhances patient-provider communication on cancer prevention, increasing engagement and awareness of screening options. Expanding telehealth access, particularly in underserved communities, may reduce disparities and support early cancer detection.

NYC Heavy Metal Surveillance Identifies Mercury Poisoning Associated with Skin Lightening Creams	Sharon Spence	Kari Patel, MPH, CIH; Kolapo Alex-Oni, MPH; Paromita Hore, PhD, MPH	NYC Department of Health and Mental Hygiene
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Background: The New York City Department of Health and Mental Hygiene (NYC Health Department) conducts investigations of NYC residents with elevated blood and urine mercury levels to identify sources of exposure, including hazardous consumer products. Methods: Per New York State (NYS) law, all laboratories and providers testing NYS residents for mercury must report results at reportable levels to the NYS Health Department. The NYC Health Department then receives results for NYC residents, interviews individuals with mercury levels of ≥ 30 ng/mL, and identifies potential sources of exposure. When appropriate, consumer product samples are collected and analyzed by an accredited laboratory for the presence of mercury. Subsequent surveillance and enforcement activities are conducted when products containing mercury above the regulatory limit are found available for sale in NYC stores. Individuals also receive education on how to prevent exposure to mercury. Results: Between January 2024 and December 2025, the NYC Health Department received 271 results for NYC adults with mercury levels ≥ 30 ng/mL of whom 46% (n=126) were interviewed. Of the patients interviewed, 98% (n=123) reported consuming seafood and 2% (n=3) reported using skin lightening products. Through these investigations, the NYC Health Department identified a symptomatic patient from Bangladesh with an elevated blood mercury level (56 ng/mL) who reported using skin lightening creams that contained mercury at levels thousands of times greater than federal permissible limits. NYC surveillance and enforcement activities have resulted in the removal of implicated creams from known sellers. Discussion: Risk assessment questionnaires are important tools that can help public health practitioners identify and reduce exposures to harmful metals, including from consumer products. Health care providers also play a critical role in assessing risk, evaluating use of potentially hazardous consumer products, and conducting appropriate testing when use is reported.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Postpartum Psychiatric Disorders in Autistic Women	Shelby Smout	Thalia Robakis, MD, PhD; Veerle Bergink, MD, PhD; Behrang Mahjani, PhD	Icahn School of Medicine at Mount Sinai	

Background: Autistic women have elevated lifetime psychiatric risk, but whether the postpartum period poses specific additional vulnerability is unknown. This study assessed postpartum psychiatric outcomes and their timing in autistic women compared to matched controls. Methods: In this population-based matched cohort study using Swedish national health registries, 1,654 autistic women with a first birth were matched 1:10 to non-autistic women on birth year (1973 to 2017). Psychiatric disorders and time to first psychiatric contact within 12 months postpartum were identified from inpatient and outpatient records. Results: Postpartum psychiatric disorders occurred in 19.6% of autistic women versus 1.5% of controls. Adjusting for pre-pregnancy psychiatric history, autistic women had higher odds of any postpartum psychiatric disorder (aOR=5.20, 95% CI 4.08-6.62), depression (aOR=4.17, 95% CI 2.85-6.09), anxiety (aOR=2.76, 95% CI 1.94-3.93), and psychiatric hospitalization (aOR=9.21, 95% CI 6.35-13.36). Among women without prior psychiatric history, autistic women had over 10-fold elevated risk of first-onset postpartum psychiatric disorders. Cox regression confirmed substantially elevated hazard of first psychiatric contact among autistic women (aHR=5.01, 95% CI 3.98-6.30), with no significant difference between early (0-90 days) and late (91-365 days) postpartum periods (interaction p=.415), indicating persistently elevated risk throughout the first year rather than a discrete high-risk window. Elevated hazard was present regardless of psychiatric history, though the association was stronger among women without prior diagnoses (HR=10.89, 95% CI 7.55-15.70) than among those with prior history (HR=2.24, 95% CI 1.58-3.18). Discussion: Autistic women face markedly elevated postpartum psychiatric risk that emerges rapidly after delivery and persists throughout the first postpartum year, independent of pre-existing psychiatric conditions. These findings support prioritizing autistic women for enhanced perinatal psychiatric monitoring and allocation of support services beginning after delivery.

Placental Metal Exposure and Placental Proteomics in a New York City Birth Cohort	Stephanie Calluori	Kathrin Schilling, Maya Deyssenroth, Frederica Perera, Julie Herbstman, and Allison Kupsco	Columbia University Mailman School of Public Health	
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Background: The placenta is critical to fetal and maternal health and may be vulnerable to metal exposure. Metals have been widely detected in human placenta, yet knowledge of their impact on placental function is limited. The placental proteome can provide a snapshot of placental function. We examined the association between placental metal levels and relative expression of placental proteins in a birth cohort from New York City. Methods: The Fair Start Study is a prospective cohort of mother-infant pairs across Northern Manhattan and South Bronx, NY (2015-present). Sixteen metals (essential: cobalt, copper, iron, manganese, nickel, selenium, zinc and nonessential: antimony, arsenic, barium, cadmium, cesium, lead, strontium, thallium, tin) were detected using inductively coupled plasma mass spectrometry in placental tissue (ng/g dry weight). Relative expression of 177 placental proteins was quantified using Olink Target 96 Cardiovascular II and III Panels. Linear regression was used to estimate associations between individual metals and individual proteins, adjusted for covariates (N=357). Results: A total of 272 significant associations were observed between individual metals and individual proteins accounting for a false discovery rate (FDR) ≥ 0.05 , with 98 related to nonessential metals and 174 to essential metals. Eleven metals were significantly associated with 1 or more proteins (Top metals - Iron: 79 proteins, Cobalt: 39, Strontium: 39, Zinc: 32, Nickel: 22, Lead: 22). Of 177 proteins quantified, 122 were significantly associated with 1 or more metals. Top proteins were FST and TFF3 (associated with 6 metals); and AGER, EPHB4, IGFBP1, IL6R, SERPINE1, and SPP1 (associated with 5 metals). Significant associations were not observed for nonessential: antimony, arsenic, tin and essential: copper and selenium. Discussion: Placental metal levels were associated with relative expression of placental proteins, many with known roles in placental development and function (e.g., FST, IGFBP1). Future work will examine non-linear associations and metal-protein networks.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Race, Risk, and Resilience: A Multidimensional Analysis of Pregnancy Outcomes, Socio-Environmental Stressors and Systemic Barriers to Healthcare	Steven Lindo	Markisha Woodson, PhD, MSPH, MBA, MCHES Shondra Loggins Clay, PhD	Hofstra University, School of Health Sciences, Population Health	

Abstract Purpose: Persistent racial and ethnic disparities in maternal health outcomes highlight the need for data-driven approaches that translate population-level evidence into actionable public health impact. This study examines differences among Non-Hispanic (NH) White, NH Black, and Hispanic pregnant women to assess how sociodemographic characteristics, healthcare access, health behaviors, and psychosocial stressors influence pregnancy status and contribute to inequities in maternal health. **Methods:** Data were obtained from the 2023 Behavioral Risk Factor Surveillance System (BRFSS), a nationally representative, population-based surveillance system. The analytic sample included 66,127 respondents, of whom 1,829 reported being pregnant. Bivariate analyses were conducted to identify racial and ethnic differences in sociodemographic factors, healthcare access, health behaviors, and stress-related indicators. Sequential multivariable regression models were used to evaluate associations between these factors and pregnancy status. To enhance insight beyond traditional epidemiologic methods, a random forest machine learning classifier was applied to identify the most influential variables contributing to pregnancy prediction across groups. **Results:** Substantial racial and ethnic disparities were observed. NH Black pregnant women experienced the highest proportion of unmarried individuals (93.3%), lowest employment rates (10.6%), and greatest financial hardship. NH White pregnant women exhibited the highest levels of healthcare access (86.9%) and exercise participation (71.9%). While bivariate analyses demonstrated significant associations between pregnancy status and multiple stressors, multivariable regression models showed limited explanatory power, suggesting complex and potentially unmeasured drivers of pregnancy-related outcomes. In contrast, the random forest model highlighted alcohol consumption, smoking status, income level, and employment status as key predictors of pregnancy status. **Conclusions:** Findings illustrate how integrating population surveillance data with advanced analytic techniques can improve identification of critical factors underlying maternal health disparities. The complementary use of traditional epidemiologic methods and machine learning offers a pathway from data to impact by informing targeted, equity-focused maternal health interventions and policies. These results underscore the importance of leveraging innovative data approaches.

Developing an Expert Driven Manual Systematic Extraction and Coding of Healthcare Worker Injury Reports using Large Language Models	Sundus Siddique	Devan Hawkins, Christine Pontus, Judith Pare	Northwell Health, Feinstein Institutes for Medical Research
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Background: Healthcare workers are at elevated risk of occupational injuries and violence. OSHA Form 300 incident reports capture these events in free text, posing challenges for systematic surveillance and prevention efforts. Structured workflows for extracting and coding complex narratives are essential for advancing occupational safety research. **Methods:** We analyzed 333 violent injury reports from thirteen Massachusetts hospitals (2021-2023). Each report was processed through a structured pipeline employing versioned prompts, conservative coding rules, and audit logs. Human-in-the-loop quality assurance included iterative review cycles and full-corpus verification. Twelve categorical variables were coded using a schema aligned with workplace injury classification standards and enriched from report narratives. Critically, a manual ontology was developed through grounded coding, domain grouping, and hierarchical framework construction to organize key concepts and relationships underpinning workplace violence events. Domains included injury mechanisms and events, escalation contexts and triggers, and outcomes with system response. **Results:** Violent incidents most often arose during direct patient interaction, including routine clinical care and security events such as physical restraint. Common mechanisms were punching (34.2%), biting (14.7%), grabbing (11.4%), biohazard exposures (spitting, 5.1%), and objects (7.2%). Injuries frequently targeted the arm/hand, face/mouth, and involved multi-site trauma. Contexts included cognitive and psychiatric factors, behavioral triggers, and reactions to care. Patient aggression comprised 44.3% of escalation pathways, with a significant portion occurring in patient assault contexts. Emergency departments and patient units were the most frequent locations. Physical injuries ranged from contusions to musculoskeletal strains, with biohazard concerns requiring follow-up care. Psychological trauma and team dynamics, including coordination and breakdown events, were noted. **Discussion:** Numeric coding integrated with thematic analysis, structured within the manual ontology, confirmed high rates of trauma in routine care and restraint contexts. This process enabled consistent classification of complex narratives, supporting actionable surveillance, targeted prevention strategies, and validation across multiple hospital settings.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Validating a Task-Based Asbestos Job Exposure Matrix for Screening Pulmonary Disease in Trade Workers: A Calibrated Approach for Surveillance and Prevention	Sundus Siddique	Anne Golden, PhD ¹ , Grace Sembajwe, ScD, MSc,CIH ² , Melissa C. Friesen, PhD ³ , Alexis Descatha, MD, PhD, JÃ©rÃ©me Lavou, PhD, Elizabeth Salis, BS ¹ , Evangelia Nena, MD, PhD ¹ ,?, Jaime Szeinuk, MD ¹ , Jacqueline Moline, MD, MSc ¹	Northwell Health, Feinstein Institutes for Medical Research	

Background: Cumulative exposure to asbestos can cause functional respiratory impairment and malignant disease. Task-based job exposure matrices specific to industry are critical for surveillance and risk assessment among trade workers when environmental measurements are unavailable. Methods: A task-based asbestos job exposure matrix was developed for 492 trade workers using registry data and historical reconstruction of exposure. Three indices, including linear and nonlinear frequency weightings, integrated 29 job tasks, exposure frequency, duration, and employment era. Reliability and structure were examined using Cronbach's alpha and principal component analysis, and agreement between indices was measured by kappa. Associations between exposure scores and chest computed tomography findings (parenchymal fibrosis, pleural plaques) as well as impaired lung function were assessed using logistic regression. The model's discrimination, sensitivity, specificity, and calibration were evaluated. Analyses were adjusted for trade and stratified by smoking status. Results: Median age was 61 years; about 60% of participants had a history of smoking. Rates of FEV1<?80%, FVC<?70%, fibrosis, and pleural plaques were 22%, 7%, 15%, and 17%, respectively. Indices demonstrated high reliability (Cronbach's alpha >?0.87), strong agreement (kappa??0.7) and unidimensionality. Higher exposure scores were significantly associated with radiological and functional impairment, with the highest exposure quartile accounting for most adverse outcomes. Associations persisted after adjustment for trade and stratification by smoking. Discrimination for fibrosis was moderate (AUC 0.68-0.70), and calibration was strong. Optimized cut-points classified 35% of workers as high-risk (sensitivity 63-67%, specificity 68-69%), with consistent risk assignment across matrix types. Discussion: The task-based asbestos job exposure matrix was validated as a reliable and accurately calibrated tool for classification of pulmonary risk among trade workers. Consistent performance across scoring methods supports the use of this approach for occupational surveillance and prevention, especially in settings where environmental measurements are not available.

Does knowledge of cancer prevention practices mean better prevention behavior among volunteer firefighters?	Tanisha Patel	Rutgers School of Public Health
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Background: Volunteer firefighters make up approximately 65% of the U.S. fire service and are routinely exposed to carcinogenic contaminants through dermal and inhalation routes, elevating cancer risk. Despite their significant representation, there is limited research on their engagement in cancer-preventive protective behaviors. The Lavender Ribbon Report (LRR) outlines 11 best practices for reducing exposure; however, prior research suggests that knowledge alone may not translate into consistent protective behaviors, particularly in resource-limited volunteer departments. This study examined whether knowledge of LRR-aligned cancer-prevention practices is associated with corresponding exposure-reduction behaviors among volunteer firefighters. Methods: This study analyzed data from 409 participants in the 2023-2024 Cancer Assessment and Prevention Study (CAPS) follow-up survey. Five knowledge-behavior pairs were evaluated: showering after response, use of self-contained breathing apparatus (SCBA) during interior, exterior, and overhaul operations, and cleaning of equipment and apparatus. Associations between knowledge and behavior variables were assessed using Spearman correlation coefficients. Multivariable analysis was conducted using four logistic regression models to examine whether knowledge predicted corresponding behaviors. All models were adjusted for age, sex, race/ethnicity, education, years of service, rank, monthly call volume, and career status. Results: Knowledge was inconsistently associated with corresponding behaviors. Shower knowledge showed a moderate positive correlation with shower behavior (? = 0.35, p < 0.01); all other knowledge-behavior correlations were weak and non-significant. In adjusted models, knowledge measures did not significantly predict SCBA use or equipment/apparatus cleaning behaviors. Demographic variables were unrelated to behaviors. These findings indicate a significant knowledge-behavior gap within volunteer departments. Conclusion: Despite awareness of cancer-prevention recommendations, firefighters demonstrated inconsistent engagement in protective behaviors. These results align with prior literature documenting cultural, structural, and resource barriers that hinder the implementation of contamination-control practices. Interventions should target cultural norms, leadership modeling, reinforcement strategies, and resource constraints. Future research should explore department-level factors and develop behavior-focused, low-cost interventions.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Blood Pressure Measurements and Premature Mortality: Insights from NHANES 2015-2016	Than Han	Ahmed Elfawal, Ayanna Besson, DrPH, MPH, Rose Calixte, PhD, PStat?	Other	CUNY Brooklyn College

Background: Elevated blood pressure (BP) is a well-established risk factor for cardiovascular disease and premature mortality. While systolic blood pressure (SBP) and diastolic blood pressure (DBP) are commonly evaluated, less is known about the independent contributions of pulse pressure (PP) and mean arterial pressure (MAP) to premature mortality risk. This study examined the association between BP components and premature mortality among U.S. adults. Methods: We analyzed 3,617 non-institutionalized adults aged 25-64 (representing approximately 65.7 million U.S. adults) from the 2015-2016 National Health and Nutrition Examination Survey (NHANES) linked to the 2019 National Death Index. Premature mortality was defined as death before age 75. SBP and DBP were obtained during Mobile Examination Center visits using standardized protocols. PP and MAP were derived mathematically. Cox proportional hazards regression models were used to estimate unadjusted and adjusted hazard ratios (HRs) with 95% confidence intervals (CIs), controlling for social demographic and clinical covariates. Results: Mean age of participants was 43.7 years; 50.3% were female, and 61.5% were non-Hispanic White. In unadjusted models, higher SBP (HR=1.033; CI: 1.018-1.049) and PP (HR=1.040; CI: 1.025-1.055) were significantly associated with increased risk of premature mortality. These associations remained significant after adjustment (SBP: HR=1.025; CI: 1.007-1.044; PP: HR=1.027; CI: 1.007-1.048). DBP and MAP were not significantly associated with premature mortality. Discussion: Higher SBP and wider PP were independently associated with greater premature mortality risk in this representative cohort of U.S. adults aged 25-64, persisting after covariate adjustment. These findings support integrating pulse pressure into risk assessment and prioritizing early preventive strategies to reduce premature mortality.

Predicting Valley Fever Outbreaks: Novel Mechanistic Models Incorporating Climate and Ecological Interactions	Trevor Reckell	Beckett Sterner, Dave Engelthaler, Petar Jevtic	Other	Arizona State University
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Coccidioidomycosis (Valley fever) is an environmentally acquired fungal infection endemic to the arid Americas, presenting a growing public health challenge due to expanding endemic regions and changing climate patterns. Current forecasting remains heavily dependent on statistical correlations with meteorological variables. These phenomenological models often fail to capture the complex, non-linear interactions between the saprobic (environmental) and parasitic (host) life cycles of Coccidioides, particularly under non-stationary climate conditions. Here, we present a hierarchy of mechanistic Ordinary Differential Equation (ODE) models that explicitly map environmental drivers to the distinct biological stages of the fungal life cycle. We developed successive model iterations, incrementally incorporating soil moisture retention, temperature-dependent growth rates, and wildlife reservoir dynamics, and calibrated them against human case data from various regions of Arizona. We derive a time-variant environmental reproduction number and test how transmission potential fluctuates dynamically with environmental forcing. Our comparative analysis, utilizing various statistical tests, information criteria, Relative Root Mean Square Error, the Diebold-Mariano test, and the Modified Diebold-Mariano, reveals that incorporating mechanistic ecological interactions significantly improves model and, more importantly, forecasting accuracy relative to standard statistical baselines. This framework provides public health officials with a robust and biologically grounded tool to predict and understand disease burden amid shifting climate patterns.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Neighborhood Deprivation and Late-life Cognition: Findings from a Longitudinal Study of Older Adults in the Bronx	Tyrone Moline	Charles B. Hall, Mindy Katz, Richard B. Lipton, Jinshil Hyun	Other	Montefiore Einstein Medical Center

Background Neighborhood deprivation, a multidimensional measure of small-area socioeconomic conditions, has repeatedly been demonstrated to influence numerous population health outcomes including late-life cognition. However, most studies examining cognitive outcomes have been limited by single time-point measures of both neighborhood deprivation and cognitive outcomes; findings from the limited longitudinal literature have been inconsistent. **Methods** This study utilized data from the Einstein Aging Study, a longitudinal cohort study of older adults living in the Bronx, NY (1993-2017). Participants completed 9 standardized neurocognitive assessments over up to 19 years of follow up, examining four cognitive domains (T scored). We developed a time-varying, census tract-level neighborhood deprivation index (NDI), based on five socioeconomic indicators (i.e., education, employment, poverty, household composition, occupational classification). The NDI was linked to participants residential addresses and categorized into quintiles. Linear mixed models analyzed the relationship between neighborhood deprivation and both baseline cognition and rates of cognitive decline. **Results** Data were available from n = 2,216 participants (mean age at baseline = 78.7, SD = 5.41; mean follow up = 2.87 years, SD = 3.56, range = 0 to 19.6). Participants living in the least deprived areas (bottom vs. all other quintiles) had significantly elevated baseline cognitive scores for memory (? = 1.22, p = 0.01), executive function (? = 1.01, p = 0.02), and processing speed (? = 1.22, p = 0.01) compared to those living in areas of greater deprivation. NDI was not associated with rates of cognitive change in any domain. **Discussion** Significant disparities in cognitive health among this sample between neighborhood socioeconomic conditions were present. Individuals with cumulative socioeconomic disadvantages may be more likely to reside in deprived neighborhoods, contributing to observed baseline differences. Future studies should address methodological challenges inherent to longitudinal research (e.g., selective attrition) that may obscure true associations over time.

Identifying Spatiotemporal Hotspots of Foodborne Illness Complaints in New York City Using 311 Service Data, 2025	Vaishnavi Yagnik	Dr. Guohua Li	Columbia University Mailman School of Public Health
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Background: Foodborne illness affects an estimated 48 million Americans annually. In New York City, the 311 complaint system captures restaurant-related foodborne illness reports that can complement traditional surveillance. Few studies have linked these data to inspection outcomes at the restaurant level or applied rigorous spatial methods. This study described the distribution of 311 complaints in 2025, identified geographic hotspot clusters, and evaluated whether inspection factors predict complaint rates. **Methods:** A retrospective ecological study analyzed 3,138 unique 311 foodborne illness complaints from New York City in 2025, linked to the Department of Health and Mental Hygiene Restaurant Inspection database via unique restaurant identifiers. Data were aggregated at the restaurant-month level; Negative Binomial regression modeled complaint counts against inspection score, grade, restaurant density, borough, and month. ZIP code-level counts were used for spatial analysis via Global and Local Moran I with a queen contiguity row-standardized weights matrix. **Results:** Complaint volume peaked in January with no seasonal gradient. Manhattan accounted for 41.0% of complaints at a crude rate of 122.6 per 1,000 restaurants. Global Moran I was 0.44 (z=9.02, p<0.001), confirming significant spatial clustering. Local analysis identified 16 High-High hotspot ZIP codes in Midtown, Chelsea, West Village, and Lower Manhattan, and one Brooklyn cluster. Four Low-High spatial outliers were identified in adjacent neighborhoods. Neither inspection score (incidence rate ratio=1.000, 95% confidence interval [0.997, 1.003], p=0.879), restaurant density, nor inspection grade predicted complaint volume. **Discussion:** NYC 311 foodborne illness complaints cluster in high-traffic Manhattan corridors but are decoupled from inspection outcomes, indicating reporting propensity drives geographic patterns more than sanitation risk. Low-High spatial outliers may represent communities with equivalent disease burden who do not engage the 311 system, raising equity concerns. These findings challenge the use of complaint volume as a food safety proxy and demonstrate the value of equity-aware spatial methods for interpreting citizen-reported surveillance.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
The Mental Health Impact of Online Gender-Based Sexual Violence on Adolescent Girls: A Systematic Review	Vincent Yuan	Shely Kagan, Haraniya Vasanthakumar, Zara Zafar, Paria Lajevardi	Other	Brooklyn Technical High School

Background: The expansion of digital technologies has been accompanied by increased technology-facilitated gender-based sexual violence, including online sexual harassment, sextortion, and non-consensual image sharing. Adolescents, particularly girls and gender-diverse youth, are disproportionately affected. Exposure to these forms of violence has been associated with depression, anxiety, low self-esteem, and other adverse mental health outcomes. This systematic review examined associations between technology-facilitated gender-based sexual violence and mental health among adolescent girls, including cisgender, transgender, and sexual minority youth. **Methods:** A systematic review was conducted following established reporting guidelines. Five academic databases were searched through June 2025. Eligible studies included adolescents aged fourteen to eighteen years who were exposed to technology-facilitated gender-based sexual violence and reported mental health outcomes. Data were extracted and study quality was assessed using validated appraisal and measurement evaluation tools. Both quantitative and qualitative studies were included. **Results:** Fifteen studies from eleven countries met inclusion criteria, including twelve cross-sectional studies, two longitudinal studies, and one qualitative study. Online sexual harassment and non-consensual image sharing were the most commonly examined forms, and nearly half of studies reported multiple forms of victimization. Exposure was consistently associated with poorer mental health outcomes, including depression, anxiety, psychological distress, lower self-esteem, suicidal thoughts, and substance use. Adolescents experiencing multiple forms of victimization reported the most severe outcomes. Gender-diverse and sexual minority youth experienced greater psychological harm compared to cisgender peers. Qualitative findings highlighted fear, shame, lack of institutional support, and persistent emotional distress. **Discussion:** Technology-facilitated gender-based sexual violence represents a significant risk to adolescent mental health, particularly for marginalized gender and sexual identities. These findings underscore the need for trauma-informed prevention strategies, inclusive policies, and targeted mental health support. Further longitudinal and culturally diverse research is needed to clarify long-term impacts and guide effective interventions.

Examining regional and socioeconomic differences in lead exposure in school drinking water across New York State	Wil Lieberman-Cribbin	Northwell Health, Feinstein Institutes for Medical Research
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Background: Lead contamination in school drinking water remains a public health concern, with the current lead action level reduced from 15 ppb to 5 ppb. We examined differences in lead exceedances in school drinking water across New York State (NYS) regions and enrollment characteristics. **Methods:** Compliance data (2023-2025) on lead testing in school drinking water was obtained from the NYS Department of Health and linked to 2025 enrollment data from the NYS Education Department. As New York City (NYC) schools may share buildings or occupy multiple buildings, results in NYC were aggregated to the building level. Counts of drinking water outlets exceeding 5 ppb, exceedance proportions, and exceedances per 1000 students were calculated and compared across Regional Economic Developmental Councils (REDC) regions and proportions of students in economic disadvantage. **Results:** There were 177,485 outlets sampled and 10,209 exceedances across 3,616 schools (3,136 distinct buildings). Exceedances per 1,000 students were highest among Western New York (16.4), North Country (15.7), Finger Lakes (12.9) and Central New York (11.4), and lowest in NYC (2.7) and Long Island (3.8). Across increasing economic disadvantage, exceedances per 1,000 students was low in NYC (0-25%: 2.6; 75-100%: 2.7), but remained high in Western New York (0-25%: 15.0; 75-100%: 14.9) and North Country (25-50%: 13.0; 50-75%: 15.4; 75-100%: 53.4). **Conclusion:** Lead exceedances in school drinking water varied across NYS regions, with lower exceedance rates in NYC compared to other regions. Past efforts to remediate lead in NYC schools potentially contributed to lower exceedance rates, while ongoing exceedances throughout NYS highlight the need for continued remediation of older infrastructure and funding. Future work will explore trends within schools leveraging prior compliance data and examine potential differences according to demographic enrollment characteristics.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Mismatch in physical and hormonal development during puberty and the longitudinal relationship with adolescent mental health	Xinyi Shi	Henning Tiemeier Akhgar Ghassabian	NYU Grossman School of Medicine	

Background Adrenarche and gonadarche are major biological axes of pubertal development, each involving hormonal activation and physical manifestations. The relative advancement or delay of adrenarche and gonadarche and their physical and hormonal manifestations ("pubertal mismatch") across the four domains relative to same-sex peers may reflect atypical maturation and increase vulnerability to mental health problems. **Methods** We analyzed data from 11,621 participants (baseline age 9-10 years, followed yearly, for 6 years) in the Adolescent Brain Cognitive Development (ABCD) Study. Parent-reported Pubertal Development Scale scores and salivary hormone levels (dehydroepiandrosterone, testosterone, and estradiol) indexed physical and hormonal maturation. Four sex-specific mismatch indicators were calculated as standardized residuals between paired domains (hormonal-physical adrenarche, hormonal-physical gonadarche, hormonal adrenarche-gonadarche, and physical adrenarche-gonadarche). Cross-sectional and longitudinal associations with Child Behavior Checklist total, internalizing, and externalizing T-scores were estimated using linear regression and generalized estimating equations, adjusting for sociodemographic and early-life covariates. **Results** Physical adrenarche-gonadarche mismatch was associated with significantly higher total (male $\beta=0.19$; female $\beta=0.27$), internalizing (0.18 vs 0.28), and externalizing (0.16 vs 0.18) problems. Hormonal-physical adrenarche mismatch showed negative associations with total and externalizing problems in males and with total and internalizing problems in females. Hormonal adrenarche-gonadarche mismatch showed negative associations with total and internalizing problems in females and with total and externalizing problems in males. Hormonal-physical gonadarche mismatch was not significantly associated with any outcome. **Conclusions** Pubertal mismatch indicators can capture meaningful discordance across developmental axes, highlighting their potential as markers of early psychopathology risk.

Prenatal phthalate exposure and age of menarche in NYC birth cohort	YaYin Ruan	Pam Factor-Litvak, Julie Herbstman, Marcela Tomayo-Ortiz, Andrew Rundle.	Columbia University Mailman School of Public Health
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Earlier age of menarche is associated with coronary heart disease, breast cancer, and diabetes. Growing evidence links exposure to phthalates to earlier age of menarche. Phthalate exposure is also linked to childhood obesity, a well-established predictor of earlier menarche. There are few studies which consider obesity as a mediator between phthalate exposure and age of menarche. Here, we hypothesize that obesity at age 7 mediates the relationship between prenatal phthalate exposure and age of menarche. The Mothers and Newborns birth cohort from Columbia Center for Children's Environmental Health recruited pregnant women and subsequently followed the offspring into adolescence. For this analysis, we restricted the sample to female offspring with prenatal phthalate metabolite measurements and data on age at menarche - a final sample size of 175. Prenatal urinary phthalate metabolites were measured during the third trimester. Cox proportional hazards models estimated associations between prenatal phthalate metabolite concentrations and age of menarche, adjusting for maternal material hardship, race/ethnicity, maternal education, prenatal alcohol consumption, marital status, gestational weight, and the caretaking environment. Concentrations of MEHP, a metabolite of one phthalate, were associated with earlier age at age of menarche (HR = 1.142, 95% CI: 0.917-1.305), as was the sum of DEHP metabolites (HR = 1.032, 95% CI: 0.984-1.082). Obesity at age 7 was associated with earlier age at menarche (HR = 1.551, 95% CI: 1.010-2.383). After additional control for BMI, the association between MEHP and age of menarche remained about the same (HR = 1.160, 95% CI: 0.891-1.299). We found that prenatal exposure to the metabolite MEHP metabolite is associated with earlier age at menarche, even after adjusting for childhood obesity. These findings provide evidence for restricting the use of products containing MEHP during pregnancy.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Mapping Therapeutic Access in New York City: Lower COVID-19 Oral Antiviral Dispensing in Low-Income and Predominantly People-of-Color Neighborhoods, January 2022 - August 2024	Yeji Hong	Nang Thu Thu Kyaw, Mustafa Ali, Kimberly Schildknecht, Mary Foote	NYC Department of Health and Mental Hygiene	
Background: Although disparities in COVID-19 oral antiviral (OAV) access have been reported, neighborhood-level dispensing patterns and the impact of distribution program changes in New York City (NYC) remain understudied. Methods: We conducted a retrospective analysis of OAV prescription claims for NYC residents aged >12 years from January 2022 to August 2024. Dispensing rates per 100,000 population and dispensing rate ratios (RRs) were calculated. Neighborhoods were categorized using the Index of Concentration of Extremes (ICE), based on pharmacy ZIP codes and grouped into five quintiles, with quintile 1 representing predominantly low-income households and people-of-color and quintile 5 representing predominantly high-income White households. Monthly dispensing rates were plotted alongside reported COVID-19 case rates and stratified by ICE category to assess temporal patterns, including potential impacts of commercialization. Geographic patterns in dispensing, COVID-19 burden, and ICE were mapped at the ZIP code level. Results: Among 344,363 COVID-19 OAV prescriptions dispensed to NYC residents, rates were highest among adults aged 75-84 years, who had a 37-fold higher rate compared with those aged 13-24 years. Women accounted for 60% of prescriptions. ICE quintile 5 neighborhoods had 5-fold higher dispensing rates than quintile 1 neighborhoods. Most prescriptions were written by physicians (72.0%), primarily in internal medicine. Over half were billed to commercial insurance (53.8%), followed by Medicare/Medicare Part D (25.3%). Dispensing trends mirrored COVID-19 case rates; however, higher ICE quintiles consistently exhibited higher dispensing. Although dispensing declined following commercialization of OAVs, these declines coincided with decreasing case counts. Neighborhoods with the higher COVID-19 burden consistently had the lower dispensing rates. Conclusions: OAV dispensing varied substantially across NYC neighborhoods, with higher-income, predominantly White neighborhoods experiencing markedly higher dispensing rates. The persistent misalignment between COVID-19 burden and treatment levels suggests structural differences in access that were not fully mitigated by expanded availability of therapeutics.				
Predictors of Cigarette Cessation: Findings from the Population Assessment of Tobacco and Health Study Data Waves 1-7	Yelan Wang	Luchang Cui, Sarah Hofmeister, Yang Feng, Jennifer Hill, Raymond Niaura, Shu Xu	NYU School of Global Public Health	
Background: Factors predicting cigarette cessation vary across studies, partly due to different sets of covariates included to improve precision and address potential confounding. Identifying predictors of cessation is critical for developing effective public health interventions and improving the reproducibility of observational research. Objectives: To identify predictors of cigarette cessation and evaluate their rank order and stability across time. Methods: We analyzed longitudinal data from adult established current cigarette users participating in Waves 1-7 of the Population Assessment of Tobacco and Health (PATH) Study. Using a set of 28 baseline predictors, including sociodemographic, behavior, health, and cognitive domains, we conducted six parallel sets of wave-to-wave prediction analyses (W1-2 through W6-7). Extreme gradient boosting (XGBoost) and Bayesian Additive Regression Trees (BART) were applied to predict subsequent cigarette cessation. Models were trained using 5-fold cross-validation and incorporated strategies to address class imbalance. Variable importance metrics were used to identify consistent predictors across models and wave pairs. Results: Across all wave pairs, both BART and XGBoost demonstrated high ROC AUC (ranging from 0.69-0.77 for BART and 0.65-0.72 for XGBoost) and PC AUC (all > 90%). The rank order of predictors varied across ML methods and over time, with greater consistency observed in XGBoost compared with BART. A similar order of importance was observed across predictor domains: nicotine dependence, tobacco use behavior, sociodemographic factors, and physical/mental health. Conclusion: Predictor rankings varied across machine learning algorithms, suggesting the value of multiple ML algorithms in similar studies. Similar patterns of important predictors emerged across algorithms, suggesting that variables from each domain should be included for adjustment to minimize the risk of selection bias. Despite shifts in the broader social context and an evolving tobacco marketplace, the most influential predictors remained largely consistent across waves and aligned with risk factors identified in earlier decades.				

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Residential mobility and exposure misclassification of PM _{2.5} among pregnant Medicaid enrollees from 2001-2014	Yinying Qian	Krista F. Huybrechts, Sonia Hernandez-Diaz, Matthew Shupler, Wanyu Huang, Xinye Qiu, Michael Leung, Hayon Michelle Choi, Yaguang Wei, Joel Schwartz, Brent Coull, Christopher J McDougale, Antonella Zanolletti, Marc Weisskopf, Stefania Papatheodorou	Rutgers School of Public Health	

Background: Residential mobility during pregnancy can introduce exposure misclassification in environmental epidemiology studies and is socially patterned. However, large-scale characterizations of prenatal mobility and the direction and magnitude of associated changes in air pollution exposure remain limited. Methods: We analyzed 1,548,297 Medicaid-covered pregnancies in the United States from 2001-2014. Residential mobility was defined as a change in ZIP code between the last menstrual period (LMP) and delivery. Movers were further classified by directional change in ambient PM_{2.5} exposure between LMP and delivery (High→High, High→Low, Low→High, Low→Low), based on the median annual ZIP code-level PM_{2.5} concentration (10.8 µg/m³). Maternal sociodemographic, neighborhood and clinical characteristics were compared using standardized mean differences (SMDs). Results: 259,918 pregnancies (16.8%) involved residential mobility (median move distance 12.4 km). Movers were younger (mean age 23.4 vs. 24.8 years; SMD 0.23), more likely to be Black (37.0% vs. 31.6%) and had modestly higher prevalence of selected comorbidities (all SMDs <0.20) compared with non-movers. Most people moved from high-to-high (n=85,101, 32.7%) and low-to-low (n=83,021, 31.9%) PM_{2.5} areas. The overall mean PM_{2.5} (SD) difference between delivery and LMP was 0.55 (4.12) µg/m³, masking substantial heterogeneity by direction of move. Moves from low- to high-PM_{2.5} areas (n=33,628, 13%) were associated with a mean increase of 3.9 µg/m³, whereas moves from high- to low-PM_{2.5} areas (n=47,152, 18%) were associated with a mean decrease of 4.7 µg/m³. Moves into higher-exposure areas were characterized by higher population density and greater neighborhood disadvantage, whereas moves into lower-exposure areas were associated with higher household income, homeownership, and lower neighborhood poverty. Discussion: Approximately one in six Medicaid-covered pregnancies involved residential mobility, most often over short distances, yet frequently accompanied by important changes in PM_{2.5} exposure and neighborhood socioeconomic context. This highlight residential mobility as an important source of differential exposure misclassification in perinatal environmental health studies.

Job Strain and Nonstandard Work Schedules as Drivers of Accelerated Biological Aging	Yuki Joyama	Emanuela Taioli, Hannah M Thompson, Stephanie Tuminello	Icahn School of Medicine at Mount Sinai	
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Background: Biological age varies widely among adults of the same chronological age, and adverse social conditions may accelerate this process. Work is a major source of chronic physical and psychosocial stress, yet the relationship between occupational characteristics and phenotypic aging (PhenoAge), a clinically derived biomarker of biological aging, remains underexplored in working age U.S. adults. Methods: We conducted a cross-sectional analysis using data from the National Health and Nutrition Examination Survey (NHANES) 1999-2010 and included 12,090 working age adults aged 20-65 years. Occupations were categorized into high, moderate, and low strain groups based on physical demand and job autonomy, and work shift was categorized as regular day, regular evening/night, or other irregular shift. Phenotypic age acceleration was assessed using PhenoAge residuals with survey-weighted multivariable linear regression adjusted for socioeconomic and lifestyle factors. Results: Participants had a median chronological age of 41 years and median PhenoAge of 38 years. After adjusting for social and clinical factors, like race, education, and smoking, high job strain was associated with higher PhenoAge residuals than low job strain (β = 0.47 years, 95% Confidence Interval [CI] 0.15-0.79). High strain longest-held occupation showed a stronger association (β = 1.02 years, 95% CI 0.63-1.40), with more pronounced effects among males. Evening/night shift was also associated with accelerated phenotypic aging after additional adjustment for occupation (β = 0.62 years, 95% CI 0.11-1.12). Discussion: Occupational strain and nonstandard work schedules can be a driver of accelerated phenotypic aging, even after adjusting for lifestyle and socioeconomic factors. These findings indicate that workplace environments may be modifiable determinants of healthy aging, underscoring the need for interventions addressing job demands, autonomy, and work schedules.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Posttraumatic Stress Disorder, Mild Cognitive Impairment, & Physical Functional Impairment: A Cross-Sectional Study of World Trade Center Firefighters and Emergency Medical Responders	Yuxiao (Doris) Song	Frank Mann, Laura Sampson, Rachel Zeig-Owens, Charles B. Hall, Alexandra K. Mueller, Jaeeun Choi, Christopher Christodoulou, Alicia M. Fels, Matthew D. Fajfer, Onix A. Melendez, Christina M. Hennington ⁸ , Candace W. Arneaud, Yang Fan Zou, Ashley E. Fontana, Alissa Barber, Melissa A. Carr, David J. Prezant, Benjamin J. Luft, Sean A. P. Clouston	SUNY Stony Brook Medicine	

Introduction: World Trade Center (WTC) responders remain at elevated risk for posttraumatic stress disorder (PTSD) and mild cognitive impairment (MCI) more than two decades after 9/11. This study examined the independent and joint associations of PTSD and MCI with physical functional impairment in this population. Method: The sample consisted of 332 male responders from the Fire Department of the City of New York (FDNY) who participated in rescue and recovery efforts. PTSD was diagnosed using the Structured Clinical Interview for DSM-5 (SCID-5), and MCI was diagnosed based on neuropsychological testing aligned with National Institute on Aging-Alzheimer's Association (NIA-AA) criteria. Physical functional impairment was measured using the Short Physical Performance Battery (SPPB), with scores <9 indicating impairment. Results: PTSD was significantly associated with physical functional impairment (adjusted OR = 3.96 [1.53, 10.13], p=0.005), and MCI was marginally associated (adjusted OR = 2.13 [0.89, 5.58], p=0.089). Responders with comorbid PTSD and MCI had the highest odds of physical functional impairment (adjusted OR = 5.47 [1.79, 17.70], p=0.003). Analysis of domain-specific cognitive tests and PTSD symptom clusters indicated that re-experiencing symptoms and deficits in processing speed and executive function undergird these associations. Conclusions: PTSD, particularly when comorbid with MCI, is associated with substantially increased odds of physical functional impairment among aging WTC responders. These findings highlight the long-term functional consequences of traumatic exposure and underscore the need for continued monitoring and targeted intervention as this population ages.

Do unconditional cash transfers improve maternal healthcare service utilization? Insights from a case-control study in Ghana	Zahra Faisal	Meshack Achore	Hofstra University, School of Health Sciences, Population Health	
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Background: Cash transfer programs are increasingly used to reduce poverty and improve access to essential services in low income settings. This study evaluates the impact of the Livelihood Empowerment Against Poverty cash assistance program on healthcare service utilization among impoverished women in Ghana. We hypothesized that beneficiaries of the program would be more likely to utilize healthcare services than non beneficiaries. Methods: A retrospective case control design was used. Women were asked about their healthcare service use in the past month. Those who utilized healthcare services were classified as cases, while those who did not were classified as controls. Chi square tests and logistic regression analyses were conducted to examine the association between cash transfer participation and healthcare utilization. Results: Chi square analysis showed a significant association between cash transfer receipt and healthcare utilization ($\chi^2 = 63.023$, $p < 0.001$). Bivariate analysis indicated that non beneficiaries were less likely to utilize healthcare services (odds ratio = 0.403, 95 percent confidence interval: 0.322 to 0.503). This remained significant after adjustment (adjusted odds ratio = 0.408, 95 percent confidence interval: 0.302 to 0.511). Women who sought care within two to three days and three to six days of need were more likely to utilize services. Healthcare utilization was also associated with higher ratings of perceived healthcare quality. Discussion: Participation in the cash transfer program was significantly associated with increased healthcare utilization among poor women. However, the retrospective design may introduce recall bias and limits causal inference. These findings suggest that cash transfer programs may support poverty reduction and women's health efforts in Ghana and similar sub Saharan African settings, although results should be interpreted cautiously.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Regional Variations in Youth Mental Health and Wellbeing: An Analysis of U.S. Adolescents Aged 12-17	Zemu Liu	Zhiyan Li Lu Shi Bian Liu	Other	Bronx High School of Science

Background: Adolescent psychosocial health remains a critical public health priority. We aimed to examine regional trends across 21 indicators of psychosocial health, spanning mental health, adverse childhood experiences (ACEs), functional difficulties and healthcare access. **Methods:** We performed a secondary data analysis of 17,394 adolescents (aged 12-17 years) extracted from the 2019-2024 National Health Interview Survey data. All psychosocial health measures were collected via proxy report from their parents or guardians. We calculated survey-weighted prevalence estimates of individual indicators across four domains: mental health outcomes (e.g. depression, anxiety), ACEs (e.g. witnessing neighborhood violence), functional difficulties (e.g. difficulties making friends), and healthcare access (e.g., health insurance coverage). We compared the estimates across four U.S. Census regions (Northeast, South, Midwest, and West) using Rao-Scott Chi-square tests. Analysis accounted for the complex survey design (i.e. survey strata, clusters and sampling weights) and adjusted for multiple testing using the Benjamini-Hochberg procedure. **Results:** At the national level, prevalences across the 21 indicators ranged from 1.3% for unmet medical needs to 18.1% for anxiety symptoms. Midwest adolescents consistently exhibited the highest prevalence across all mental health and ACEs indicators, including frequent anxiety symptoms (Midwest 21.1% vs. Northeast 18.3%, $p=0.05$), depression symptoms (8.9% vs. 7.1%, $p=0.05$), and witnessed neighborhood violence (10.2% vs. 4.7%, $p<0.001$). Northeast showed the lowest prevalence of ACEs and healthcare access barriers. South had the highest prevalence of uninsurance (South 7.6% vs. 1.8%, $p<0.001$) and behavior control difficulties (3.6% vs. 1.9%, $p<0.001$). West had the highest prevalence of friendship difficulties (4.0% vs. 2.6%, $p<0.001$). **Discussion:** We found substantial regional disparities in adolescent psychosocial health indicators, with Midwest showing consistently higher prevalence of mental health problems and ACEs. These findings suggest a need to investigate the underlying drivers of such disparities in support of region-specific multidimensional health interventions and resource allocation.

Independent Associations of Fruit and Vegetable Consumption and Sugar-Sweetened Beverage Intake with Depression Among New York City Adults	Zhi Liu	Ann Gaba	NYU School of Global Public Health
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Background: Diet has gained attention as a modifiable risk factor for depression, yet research in diverse urban populations remains limited. Existing observational studies often have methodological limitations that may bias results. **Methods:** This cross-sectional study examined associations of fruit and vegetable consumption and sugar-sweetened beverage intake with depression among 24,646 New York City adults using the New York City Community Health Survey (2016-2018). Depression was assessed using the Patient Health Questionnaire-8 (score ≥ 10). Survey-weighted logistic regression models adjusted for demographic, socioeconomic and lifestyle covariates. Stratified and sensitivity analyses were conducted. **Results:** Compared to zero daily cups, fruit and vegetable consumption was associated with lower odds of depression: 1-2 cups (adjusted odds ratio=0.61, 95% confidence interval: 0.51-0.74), 3-4 cups (0.49, 0.39-0.61), and five or more cups (0.57, 0.42-0.78). Each additional cup was associated with 9% lower odds. For sugar-sweetened beverages, each additional can was associated with 7% higher odds (1.07, 1.03-1.11); consuming two or more cans daily was associated with 27% higher odds versus fewer (1.27, 1.06-1.53). Associations were consistent across age, sex, nativity, and income subgroups and remained largely unchanged in sensitivity analyses adjusting additionally for body mass index, diabetes, hypertension, and self-rated health. **Discussion:** To our knowledge, this is the first study examining dietary factors and mental health in New York City. Findings suggest that even moderate fruit and vegetable intake - as few as one to two daily cups - may confer meaningful protection against depression, while limiting sugar-sweetened beverages to fewer than two cans daily may reduce risk. That associations persisted after adjusting for physical health conditions supports direct biological pathways linking diet to depression. Prospective and intervention studies are needed to elucidate underlying biological mechanisms and inform dietary strategies for depression prevention in urban populations.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
The Science of Safety: The Role of Youth Advisory Councils	Hannah Xu, Oliva Isenberg-Landes, Juliel Ortiz, Penelope Ponce, Kathryn Chase, David Kener, Nora Gross, Danielle Laraque-Arena, and the IAAC		The Heritage School	Columbia Center for Injury Science & Prevention, Intergenerational Action Adolescent & Child Team

No abstract provided.

Cancer History and Risk of Alzheimer's Disease in Women: A Nested Case-Control Study in the New York University Women's Health Study	Xiaolan Zhao	Fen Wu, Karen L. Koenig, Alan A. Arslan, Yelena Afanasyeva, Anne Zeleniuch-Jacquotte, and Yu Chen	NYU Grossman School of Medicine	
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Background: Previous observational studies have reported an inverse association between cancer and Alzheimer's disease. However, important knowledge gaps remain, including whether this inverse relationship is consistent across cancer subtypes. **Methods:** The New York University Women's Health Study enrolled 14,273 Alzheimer's disease-free women aged 35-65 years between 1985 and 1991 and followed them for over 30 years. Incident cancer diagnoses were ascertained through self-completed mailed questionnaires verified by medical records and tumor registries. Alzheimer's disease diagnoses were ascertained through linkage with the Centers for Medicare & Medicaid Services. We conducted a nested case-control study of 1,632 Alzheimer's disease cases identified through Medicare claims linkage and 2,911 controls selected using risk-set sampling matching on age, race/ethnicity, and Medicare coverage. We used conditional logistic regression to estimate odds ratios (ORs) and 95% confidence intervals (CIs) for the association between cancer and Alzheimer's disease, adjusting for potential confounders. Inverse probability weights based on selection predictors were applied in weighted conditional logistic regression models. **Results:** Overall, a history of any cancer prior to Alzheimer's disease was associated with lower odds of subsequent Alzheimer's disease during follow-up compared with no cancer history (OR = 0.80, 95% CI = 0.70-0.92). In inverse probability weights-weighted analyses, the 95% CI was slightly narrower (OR = 0.80, 95% CI = 0.75-0.87). When assessing associations for each specific cancer, the inverse association was more pronounced for breast cancer (OR = 0.80, 95% CI = 0.73-0.88), endometrial cancer (OR = 0.73, 95% CI = 0.55-0.95), and melanoma (OR = 0.60, 95% CI = 0.49-0.74). **Discussion:** Among women in a long-term prospective cohort, cancer history was associated with reduced odds of developing Alzheimer's disease, particularly hormone-related cancers.

Patient Perceived Cognition Predicts Cognitive Impairment and Dementia Among Patients with End-Stage Kidney Disease	Jingyao Hong	Nidhi Ghildayal, Anoma Nellore, Yiting Li, Nicole M. Ali, Aarti Mathur, Silas P. Norman, Dorry L. Segev, Mara A. McAdams-DeMarco	NYU Grossman School of Medicine	
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Background: Patients with end-stage kidney disease (ESKD) often face a higher burden of cognitive impairment. While kidney transplantation (KT) improves cognitive function, early identification of cognitive impairment, a risk factor for adverse pre-KT outcomes, remains critical. Objective tests of cognitive function can be resource-intensive and time-consuming in the clinical setting. Patient-perceived cognitive difficulty, an easily administered screener, might serve as an early predictor of pre-KT cognitive impairment and facilitate timely intervention in potential KT candidates. **Methods:** In a multi-center prospective cohort study (2014-2025), 2,529 adult (>18 years) ESKD patients at KT evaluation reported perceived cognitive difficulty using the Kidney Disease Quality of Life Short Form (average score <60 indicates perceived cognitive difficulty). Global cognitive function (composite of Modified Mini-Mental State Examination [3MS] and Montreal Cognitive Assessment [MoCA]) at evaluation and incident dementia during follow-up was obtained. We quantified the association between perceived cognitive difficulty with cognitive function (multivariate linear regression), cognitive impairment (3MS<80 or MoCA<26; modified Poisson regression), and risk of dementia (Cox proportional hazards model). **Results:** Cognitive difficulty was associated with worse global cognitive function (difference=-0.16 points; 95% confidence interval [95%CI]: -0.27 to -0.06). This association differed by age (p[interaction]=0.01). Specifically, among potential candidates >65 years, perceived cognitive difficulty was associated with worse cognitive function (difference=-0.40 points; 95%CI: -0.62 to -0.18); among candidates 18-64 years, no association was observed. Cognitive difficulty was associated with a higher risk of dementia (hazard ratio [HR]=1.87; 95%CI:1.26 to 2.76), but not cognitive impairment. **Discussion:** Patient-perceived cognitive difficulty is associated with worse cognitive function and a higher risk of dementia among potential KT candidates, particularly among older candidates. Assessment of cognitive difficulty may be feasible for early detection of cognitive impairment to enhance timely intervention, and ultimately ensure access to transplantation for appropriate older candidates.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Associations between Emergency Department visits and temperature variability differentiating the intraday and interday effects	Nazife Pehlivan	Jinah Park, MA, Cino Kang, PhD, Chaelin K. Ra, PhD, Whanhee Lee PhD, Chaerin Park MA, Juyeon Yang MA, Dohoon Kwon MA, Ho Kim PhD	Other	Rutgers Cancer Institute

Background: Despite the growing literature on the associations between the temperature variability (TV) and hospitalization risks, the differentiated impacts of intraday and interday TV on emergency department visits (EDV) are yet to be investigated. Methods: We conducted a space-time-stratified case-crossover analysis using nationwide emergency department visits data from National Health Insurance Service, South Korea, from 2011 to 2019. We conducted year-round and season-stratified analyses, as well as age-stratified (aged <65, aged 65+), sex-stratified (female, male), and cause-stratified (respiratory, cardiovascular, renal, endocrine, mental, neurology) analyses. Findings: Risks of EDV associated with intraday TV were generally higher compared to interday TV. For instance, at lag 0-1 day, the percentage change in cardiovascular EDV was 1.18% (95% CI: 0.88, 1.49) due to intraday TV compared to -0.18% (-0.41, 0.06) due to interday TV. The highest risks due to intraday TV were found in summer season at lag 0-1 days for endocrine EDV at 3.49% (2.24, 4.75) compared to 1.62% (0.41, 2.83) in fall, 1.13% (0.09, 2.17) in winter, 1.81% (0.62, 2.99) in spring and mental EDV at 2.73% (1.50, 3.96) compared to 0.61% (-0.56, 1.77) in fall, -0.46% (-1.51, 0.59) in winter, 0.58% (-0.59, 1.75) in spring followed by aged 65+ EDV at 2.65% (2.08, 3.22) compared to 1.08% (0.54, 1.61) in fall, 1.08% (0.65, 1.52) in winter, 2.27% (1.77, 2.77) in spring. Interpretation: The percentage changes in EDV associated with TV differ by the type of index, season, disease and the individual characteristics such as age and sex. Targeted policies should be adopted to minimize the risks.

Most New Yorkers are retained in methadone treatment for at least a year, but retention is lower in NYC	Vanessa Drury	Vanessa Drury, Shuo Chen, Sean Locke, Samantha M Doonan, Zouleikha Moumen-Seridi, Chinazo O Cunningham, Ashly E Jordan	Other	NYS Office of Addiction Services and Supports
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Introduction: The Office of Addiction Services and Supports (OASAS) has prioritized expanded access to methadone, a highly effective treatment for opioid use disorder (OUD). Retention in methadone treatment is associated with decreased overdose mortality risk, reduced substance use, and improved quality of life. However, retention may be different across regions due to sociodemographic, clinical, and geographic factors. We followed a cohort of individuals in opioid treatment programs (OTPs) over 5 years to estimate methadone treatment retention statewide and for individuals residing in New York City (NYC) and the rest of the state (ROS). Methods: Using statewide administrative data from OASAS-certified OTPs, we collected records for all individuals initiating methadone treatment in 2018. We calculated retention as time from admission date to discharge date or January 1, 2023. We conducted a Mann-Whitney U test and fit crude and adjusted accelerated failure time (AFT) models with lognormal distributions to compare retention between NYC and ROS. The adjusted model controlled for race/ethnicity, age group, sex, stimulant and alcohol co-use, homelessness, criminal legal involvement, employment, education, and previous OTP initiation. Results: In 2018, 10,946 (32.4% female, 44.0% non-Hispanic White) individuals initiated treatment at OTPs. By January 1, 2023, 2,512 individuals were still in treatment. 53.6% (5,687) were retained for at least one year. Median retention was 429.0 days. Retention distribution for NYC (N=6,830) was significantly lower than for ROS (N=4,116) (median retention=392.5 vs 498.0 days, p-value<0.01). NYC had significantly shorter retention than ROS (time ratio (TR)=0.66 [95%CI:0.60-0.71], adjusted TR=0.57 [95%CI:0.52-0.63]). Conclusions: Most individuals initiating methadone treatment in 2018 were retained for at least one year. However, individuals from NYC had significantly shorter methadone treatment retention compared to individuals in ROS even when accounting for sociodemographic and clinical covariates. Patients from NYC may need more support and resources to remain in treatment.

Title	Presenter Name	Other Authors	Organization	Associated Organizations
Evaluation of New York City Public Health Program to Provide Immunizations and Primary Care Referrals to Newly Arrived Immigrant Children - New York City, September 2022-December 2023	Courtney Commissiong	Kaiyue Wu, Bindy Crouch, Michelle Macaraig	Other	NYC Department of Health & Mental Hygiene

Background: From early 2022 to December 2023, NYC saw a rapid surge in thousands of newly arrived immigrant families. Many arrived from regions with disrupted health systems and pediatric immunization schedules lacking NYC school-required vaccines. In response to shelter outbreaks and school exclusions, the NYC Health Department launched onsite vaccine operations at family shelters and referred children for follow-up at primary care locations. This study evaluates the program's effectiveness in connecting children to longitudinal primary care. **Methods:** Using the Citywide Immunization Registry (CIR), we identified children aged 18 years and younger vaccinated by the program vaccination vendor at shelters. Connection to longitudinal primary care was defined as the receipt of at least one subsequent vaccine dose at a health care provider office or facility. Connection was assessed at 45 and 180 days post-intervention. As a secondary outcome, up-to-date (UTD) status as of January 31, 2025, was compared across groups using Chi-square tests. **Results:** Among 2,862 children vaccinated at the shelters, 21.1% (n = 604) were connected to care by day 45, increasing to 52.3% (n = 1,497) by day 180. Most connected children were seen at FQHCs. At the final assessment, children connected to care by day 180 were significantly more likely to be UTD with age-appropriate vaccines (25.5%) compared to those never connected (11%) (p < 0.001). Demographics (race/ethnicity, borough) were similar between groups, though connection rates differed modestly by age (p = 0.017). **Discussion:** Shelter-based vaccination provided a critical entry point into the health care system for high-risk immigrant families. While over half of the children were successfully connected to community providers within six months, the 47.7% who remained unconnected face a higher risk of under-immunization. Findings suggest that while onsite interventions effectively bridge immediate health care gaps, stronger linkage mechanisms can support long-term primary care needs in this population.

Shooting-Free Days as a New Metric of Success in Reducing Firearm Violence in US Cities	Isbah Plumber	Charles C. Branas, PhD; Riley Bennett, BS; Olivia Landes, MPH; Sonali Rajan, EdD	Columbia University Mailman School of Public Health
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Background Many US cities track firearm violence with annual homicide counts, which may not capture prevention gains, nonfatal injury trends, and stretches of peace. Metrics that quantify days without shootings provide an opportunity to communicate resilience and guide action. To provide a fuller picture, we introduce 4 novel metrics-shooting-free days, shooting death-free days, consecutive shooting-free days, and multiple shooting-free days-that, to our knowledge, have not previously been calculated across major US cities. **Methods** Repeated cross-sectional, time-series analysis of daily gun violence incidents measured in 10 US cities with populations exceeding 1 million using Gun Violence Archive data to construct city-day observations from all fatal and nonfatal shooting incidents recorded between January 1, 2015 through December 31, 2024. Linear regressions were used to estimate annual trends. **Results** Chicago, Illinois, had the lowest averages (1.6 shooting-free days, 86.9 shooting death-free days, 0.6 consecutive shooting-free days, and 9.6 multiple shooting-free days), whereas San Diego, California, had the highest (291.5 shooting-free days, 337.6 shooting death-free days, 24.2 consecutive shooting-free days, and 347.3 multiple shooting-free days). A pronounced pullback occurred from 2019 through 2021. Overall trends were significantly downward: -4.79 shooting-free days per year, -4.50 shooting death-free days per year, -0.30 consecutive shooting-free days per year, and -8.37 multiple shooting-free days per year. Jacksonville, Florida, was the only city to show a significantly improved metric, in multiple shooting-free days (0.84 days per year; P<.05). **Discussion** These novel metrics highlight periods of success and safety rather than focusing on negative outcomes. Metrics varied widely, worsened overall during the study decade, and highlighted cities with policies and practices that could be replicated. Incorporating these metrics into public dashboards can motivate communities, sharpen accountability, and guide interventions in US cities.
