



2023

RESEARCH REVIEW

In 2023, YSPH faculty published more than 1,100 manuscripts covering a broad spectrum of pressing public health issues.

Research topics included maternal and child health, infectious disease, climate change, cancer, cardiovascular disease, substance use, and mental health. The research ranged from etiologic research in the laboratory and interventions in clinical and community care to novel data science approaches to improve health outcomes and the way health care is delivered. Some of the publications focused on Yale’s home state, Connecticut, while others tackled national and global health problems. Our research was bolstered by \$63 million in grant funding in FY23, with a majority of funding sponsored by the National Institutes of Health. We thank all of our faculty, as well as our students, postdocs, and research staff, for their scientific achievements. We look forward to continuing and expanding upon our successes in 2024, as we work with colleagues both at Yale and beyond to create a shared and equitable vision of public health for all.



Melinda Irwin, Ph.D., M.P.H.
Associate Dean of Research
Susan Dwight Bliss Professor of Epidemiology
(Chronic Diseases)

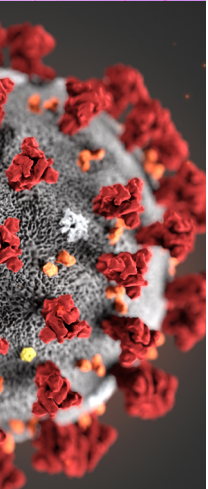
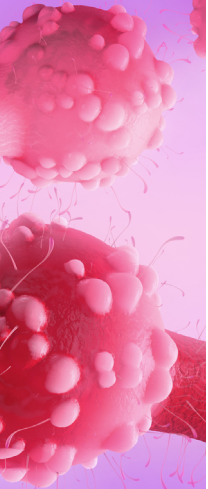
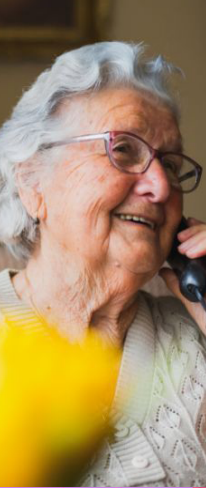
\$63 Million
in new grants

FY 21	\$48M
FY 22	\$55M
FY 23	\$63M
1/2 FY 24	\$35M

14.5%
increase over 2022 (\$55M)

1176
new manuscripts

87
new grant awards



Research Highlights

AGE/AGEISM/DEMENTIA

JAMA Surgery

Changes in Older Adult Trauma Quality When Evaluated Using Longer-Term Outcomes vs In-Hospital Mortality.

Social Science & Medicine

Societal impact on older persons' chronic pain: Roles of age stereotypes, age attribution, and age discrimination.

Journal of the American Geriatrics Society

A dementia positive, family-centered question geriatricians can ask caregivers and persons living with dementia.

CANCER

Scientific Reports

Outdoor artificial light at night, air pollution, and risk of childhood acute lymphoblastic leukemia in the California Linkage Study of Early-Onset Cancers.

Cancer

Quality of life after surgery for lower grade gliomas.

New England Journal of Medicine

Targeting IDH in Low-Grade Glioma.

Journal of Clinical Oncology

Randomized Trial of Exercise and Nutrition on Chemotherapy Completion and Pathologic Complete Response in Women With Breast Cancer: The Lifestyle, Exercise, and Nutrition Early After Diagnosis Study.

JAMA Network Open

Relative Burden of Cancer and Noncancer Mortality Among Long-Term Survivors of Breast, Prostate, and Colorectal Cancer in the US.

COVID-19

Nature Communications

Evidence of leaky protection following COVID-19 vaccination and SARS-CoV-2 infection in an incarcerated population.

Journal of the National Cancer Institute

Infection with alternate frequencies of SARS-CoV-2 vaccine boosting for patients undergoing antineoplastic cancer treatments.

ENVIRONMENTAL HEALTH

Environmental Research

Residential proximity to unconventional oil and gas development and birth defects in Ohio.

Current Environmental Health Reports

Wearable Passive Samplers for Assessing Environmental Exposure to Organic Chemicals: Current Approaches and Future Directions.

Environmental Science & Technology

Perfluorooctanesulfonic Acid and Perfluorooctanoic Acid Promote Migration of Three-Dimensional Colorectal Cancer Spheroids.

Environmental Health Perspectives

Geospatial Assessment of Racial/Ethnic Composition, Social Vulnerability, and Lead Water Service Lines in New York City.

GENETICS/GENOMICS

PLOS GENETICS

A statistical framework to identify cell types whose genetically regulated proportions are associated with complex diseases.

Journal of the American Statistical Association

Genetic underpinnings of brain structural connectome for young adults.

Frontiers in Genetics

Variants in JAZF1 are associated with asthma, type 2 diabetes, and height in the United Kingdom biobank population.

HEALTH POLICY

Open Forum Infectious Diseases

Increased HIV Transmissions with Reduced Insurance Coverage for HIV Preexposure Prophylaxis: Potential Consequences of Braidwood Management v. Becerra.

International Journal of Health Economics and Management

Finding fraud: enforcement, detection, and recoveries after the ACA.

“YSPH faculty and trainees are conducting critically important public health research in the laboratory, clinic, and community, using sophisticated data science approaches to find equitable solutions to our most urgent public health challenges.”

MELINDA IRWIN, Associate Dean of Research

INFECTIOUS DISEASE

Proceedings of the National Academy of Sciences
Phylogeographic reconstruction of the emergence and spread of Powassan virus in the northeastern United States.

JAMA Internal Medicine
Excess Death Rates for Republican and Democratic Registered Voters in Florida and Ohio During the COVID-19 Pandemic.

Nature Communications
Assessing the global risk of typhoid outbreaks caused by extensively drug resistant Salmonella Typhi.

Lancet Microbe
Tracking antimalarial drug resistance using mosquito blood meals: a cross-sectional study.

Human Genomics
An AI-powered patient triage platform for future viral outbreaks using COVID-19 as a disease model.

MATERNAL AND CHILD HEALTH

The Lancet
Breastfeeding: crucially important, but increasingly challenged in a market-driven world.

JAMA Pediatrics
Birth-Based vs Fetuses-at-Risk Approaches for Assessing Neonatal Mortality Rate by Race.

JAMA Pediatrics
Association Between Estimated Geocoded Residential Maternal Exposure to Lithium in Drinking Water and Risk for Autism Spectrum Disorder in Offspring in Denmark.

MENTAL HEALTH

JAMIA Open
Black American women's attitudes toward seeking mental health services and use of mobile technology to support the management of anxiety.

Journal of Psychopathology and Clinical Science
Multilevel stigma and depression among a national sample of Black and Latinx LGBTQ+ adolescents in the United States.

JAMA Network Open
Engagement With Mental Health Services Among Survivors of Firearm Injury.

SSM – Mental Health
Mental health during the COVID-19 pandemic in a longitudinal study of Hurricane Katrina survivors.

PLANETARY HEALTH/CLIMATE CHANGE

Nature Human Behavior

Racial/ethnic disparities in PM(2.5)-attributable cardiovascular mortality burden in the United States.

Stroke

Associations Between Long-Term Air Pollutant Exposure and 30-Day All-Cause Hospital Readmissions in US Patients With Stroke.

New England Journal of Medicine

Waterborne Diseases That Are Sensitive to Climate Variability and Climate Change.

Nature Water

Association of flooding exposure with cause-specific mortality in North Carolina, United States.

STRUCTURAL AND SOCIAL DETERMINANTS OF HEALTH

Healthcare Papers

The Weather of Anti-Blackness: Is Health Equity Enough?

Journal of Racial and Ethnic Health Disparities

Vicarious Racism, Direct Racism, and Mental Health Among Racialized Minority Healthcare Workers.

American Journal of Public Health

Structural Racism, the Social Determination of Health, and Health Inequities: The Intersecting Impacts of Housing and Mass Incarceration.

SUBSTANCE USE

JAMA Health Forum

Brand Differences in Underage Tobacco Use as Evidence for Targeted Sanctions-Reviving the Lookback.

American Journal of Preventive Medicine

Patterns of Birth Cohort Specific Smoking Histories by Race and Ethnicity in the U.S.

Science Direct

Receipt of opioid use disorder treatments prior to fatal overdoses and comparison to no treatment in Connecticut, 2016-17.

Health Promotion Practice

Addressing Gendered Racism Against Black Girls Using a Strengths-Based Empowerment-Intersectional Framework for Sexual Health and Substance Use Prevention Programming.

AIDS and Behavior

Overall, Direct, Spillover, and Composite Effects of Components of a Peer-Driven Intervention Package on Injection Risk Behavior Among People Who Inject Drugs in the HTPN 037 study.



Top Grants Awards >\$5M

2022 - 2024

“Community-based, Family-centered, Trauma-informed approach to timely detection and management of early postpartum hypertension”

PCORI, \$20.4 million

“Engaging People with Low-Grade Glioma in Cancer Research”

NCI/NIH, \$12.8 million

“Emerging Infections Program (EIP)”

CDC, \$7.9 million

“Emerging Water Contaminants: Investigating and Mitigating Exposures and Health Risks”

NIH/NIEHS, \$7.3 million

“Center for Interdisciplinary Research on AIDS (CIRA, renewal)”

NIMH/NIH, 7.3 million

“Consumer Assessment of Healthcare Providers and Systems (CAHPS) VI”

AHRQ/NIH, \$7.2 million

“Trial of Exercise and Lifestyle (TEAL) in Women with Ovarian Cancer”

NIH/NCI, \$6 million

“Integrating Community Based Participatory Research and Machine Learning Methods to Predict Youth Substance Use Disorders for Urban Cities in New Jersey”

NIDA/NIH, \$5.8 million

Visit the [Grant Listings web page](#) to browse and learn more about over 200 grants at YSPH.

Research Expertise

- [AGING](#)
- [CANCER](#)
- [COVID-19](#)
- [ENVIRONMENTAL HEALTH](#)
- [GLOBAL HEALTH](#)
- [HEALTH CARE](#)
- [HEALTH DISPARITIES](#)
- [MATERNAL CHILD HEALTH](#)
- [MENTAL HEALTH](#)
- [SUBSTANCE USE](#)

Learn more about our [Research and Practice](#).

