Yale School of Public Health faculty had an extremely busy 2022 conducting extensive research to design, implement, evaluate, and promote solutions to a wide range of public health issues that affect people locally, nationally, and globally.

In 2022, YSPH faculty published more than 1,000 publications covering a broad spectrum of pressing public health matters. These appeared in top scientific journals including JAMA, Science, NEJM, and Nature — often in collaboration with other Yale University faculty, but also with peers from other academic institutions in the U.S. and beyond. Of these publications, more than 330 or one-third of the manuscripts had a YSPH faculty member as a first or last author.

Many of these publications addressed public health approaches to achieving health equity and justice, preventing the next public health threat, or advancing planetary health, often using multidisciplinary data science approaches to improve health outcomes and the way we deliver health care. Research topics included maternal child health, infectious disease, environmental health, cancer, cardiovascular disease, global health, and mental health. Some of the publications focused on Yale’s home state, Connecticut, while others tackled national and world health problems.

YSPH’s six academic departments are home to more than 150 full-time faculty, along with more than 50 postdoctoral fellows. Our research was bolstered by $58 million in grant funding in FY22, comprised of a total of 234 grants.

We salute and 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 2023, 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 and Susan Dwight Bliss Professor of Epidemiology (Chronic Disease)
# 2022 Research Review

## CANCER

- **Molecular Biology and Evolution**
  - Attribution of Cancer Origins to Endogenous, Exogenous, and Preventable Mutational Processes

- **International Journal of Cancer**
  - A competing risk analysis of adherence to the American Cancer Society Guidelines on Nutrition and Physical Activity for Cancer Prevention and obesity-related cancer risk in Hispanic/Latino adults in the NIH-AARP Diet and Health Study

- **Biology of Sex Differences**
  - Bile acid distributions, sex-specificity, and prognosis in colorectal cancer

- **Cancer Epidemiology, Biomarkers & Prevention**
  - Hispanic Ethnicity Differences in Birth Characteristics, Maternal Birthplace, and Risk of Early-Onset Hodgkin Lymphoma: A Population-Based Case-Control Study

## CARDIOVASCULAR DISEASE

- **Stroke**
  - Trends in 1-Year Recurrent Ischemic Stroke in the US Medicare Fee-for-Service Population

- **Journal of the American Heart Association**
  - Rural Residence and Antihypertensive Medication Use in US Stroke Survivors

## COVID-19

- **Cell Reports Medicine**
  - Comparative transmissibility of SARS-CoV-2 variants Delta and Alpha in New England, USA

- **JAMA Network Open**
  - Estimating COVID-19 Infections, Hospitalizations, and Deaths Following the US Vaccination Campaigns During the Pandemic

- **Science**
  - Vaccination with BNT162b2 reduces transmission of SARS-CoV-2 to household contacts in Israel

- **Science Advances**
  - Impact of close interpersonal contact on COVID-19 incidence: Evidence from 1 year of mobile device data

- **Proceedings of the National Academy of Sciences**
  - The durability of natural infection and vaccine-induced immunity against future infection by SARS-CoV-2
“This report captures the innovation and collaboration that advances the Yale School of Public Health’s mission. The outstanding work of our faculty led to numerous awards and honors in 2022, including: Paul Anastas (2022 Hofmann Medal); Nathan Grubaugh (2022 NIH New Innovator Award), Nancy Ruddle (2022 Distinguished Fellow, American Association of Immunologists); and Heping Zhang (2022 Neyman Lecture). We are proud of what we have accomplished and are committed to sustaining this momentum in 2023.” — MELINDA PETTIGREW
INTERIM DEAN, YALE SCHOOL OF PUBLIC HEALTH
HIV/INFECTIOUS DISEASES

*Psychotherapy (Chic.)*
A pilot test of a treatment to address intersectional stigma, mental health, and HIV risk among gay and bisexual men of color

*JMIR Public Health Surveillance*
Trends and Characteristics of #HIV Prevention Tweets Posted Between 2014 and 2019: Retrospective Infodemiology Study

MATERNAL CHILD HEALTH

*Journal of the American Statistical Association*
Modeling Pregnancy Outcomes through Sequentially Nested Regression Models

*PLoS One*
“Now, I have my baby, so I don’t go anywhere”: A mixed method approach to the ‘everyday’ and young motherhood integrating qualitative interviews and passive digital data from mobile devices

PLANETARY HEALTH/CLIMATE CHANGE

*Nature Communications*
Associations between long-term drought and diarrhea among children under five in low- and middle-income countries

*GeoHealth*
Residential and Race/Ethnicity Disparities in Heat Vulnerability in the United States

“We look forward to continuing and expanding upon our successes in 2023, as we work with colleagues both at Yale and beyond to create a shared and equitable vision of public health for all.”

— MELINDA IRWIN
ASSOCIATE DEAN OF RESEARCH
# Substance Use/Alcohol/Tobacco

The E-Cigarette Flavor Debate — Promoting Adolescent and Adult Welfare

Estimated Prevalence of Smoking and Smoking-Attributable Mortality Associated with Graphic Health Warnings on Cigarette Packages in the US From 2022 to 2100

Liver metabolomics identifies bile acid profile changes at early stages of alcoholic liver disease in mice

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Learn more about many other areas of research and practice at the Yale School of Public Health.

[ysph.yale.edu/research_practice](ysph.yale.edu/research_practice)