Human Health and the Environment (BA/BS)

Many of the world's most debilitating illnesses such as cancers, cardiovascular diseases, respiratory diseases, and microbial diseases are strongly associated with the quality of air, water, food, and indoor environments. The majority of these debilitating and costly illnesses are preventable via strategic management of microbial and infectious diseases, reducing air pollution both outside and indoors, avoidance of hazardous chemicals such as metals, solvents, tobacco products and pesticides, water filtration, or shifting dietary patterns to reduce intake of livestock products, saturated fats, salt, sugars, and alcohol. Collectively this means that prevention of many diseases and premature mortality is possible.

The field of global environmental health considers problems at a global or transnational scale including population pressure, climate change, epidemics, vector borne diseases, urbanization, warfare, transport technologies, electrification, and migration. In tropical parts of the world vector-borne diseases such as malaria, dengue fever, yellow fever, and Zika virus can grow to epidemic proportions without strong disease surveillance, and rapid intervention with medical care and the strategic use of pesticides. And many environmental problems are local or site specific. Examples include living in a neighborhood that derives drinking water from a contaminated well, or living nearby a polluting industrial plant, or next to an agricultural area where pesticides are applied by spray planes. Any of these conditions are appropriate for an environmental health concentration and associated senior essay topics.

Students who have chosen this concentration have been admitted to some of the nation's best medical schools, including Yale, Harvard, and Stanford. Courses in this concentration also provide an opportunity to fulfill the requirements of the *Global Health Studies Multidisciplinary Academic Program*.

Senior Essays, Environmental Health: 2017-2021

Emma Desrochers, BS 2021: Microplastics & Human Health: A Synthesis of Microplastic Particle Accumulation and Impact in the Human Body, Advisor: John Wargo

Victoria Dombrowik, BS 2021: Assessing the Impact of COVID-19 Lockdowns on Ground-Level Ozone Formation in Four Cities, Advisor: Xuhui Lee

Jordan Perry, **BA 2021:** The Human Health Experiment: US Endocrine-disrupting Chemical Policy and its Consequences, Advisor: John Wargo
Post Grad: Research Associate, Environmental Law Institute

Tristan Furnary, **BS 2020**: Potential Role of Acetaminophen and Pesticides in the Developmental Origins of Autism Spectrum Disorder via In Silico and Stem Cell Models, Advisor: Vasilis Vasiliou
Post Grad: MPH Candidate in the Yale School of Public Health's Environmental Health Sciences department

Ellie Atkinson, **BA 2019:** Pollution Levels Below Ambient Air Quality Standards Correlate to Asthma-Related Emergency Room Visits in New Haven, Advisor: John Wargo
Post Grad: Analyst, Ellington Management Group (2019-present)

Skyler Chin, **BS 2019:** Legionnaire's Disease in the Yale New Haven Health System: Investigating Weather and Surveillance as Factors Influencing the Recent Increase in Cases, Advisor: John Wargo & Rick Martinello.
Post Grad: Associate Sustainability Manager, Energy and Sustainability at JLL (2019-present)

Roxie Trachtenberg, **BS 2019:** Exploring Commuter Exposure: Characterization and Concentrations of Volatile Organic Compounds in the Manhattan Subway Microenvironment, Advisor: Drew Gentner
Post Grad: Environmental Scientist at ERM: Environmental Resources Management (2019-present)

Nicole Boardman, **BS 2018:** Glyphosate in Corn Products: Investigating Patterns and Risks of Residue Levels, Advisor: John Wargo
Post Grad: Medical Scribe St. Joseph's Medical Center (2019); Medical Student at Mayo Clinic Alix School of Medicine (2019-present)

Christina Bui, BS 2018: Estimated Dietary Exposure to Bisphenol A and Maternal and Childhood Obesity in Samoa, Advisor: Nicole Dezeil
Essay Published in *Toxics*, 2020 **here**
Post Grad: Department of Environmental Health Sciences, Yale School of Public Health

Victoria Shepherd, BA 2017: Health-Focused Lighting Design: Prioritizing Wellness in an Urbanizing World, Advisor: Michelle Addington
Post Grad: International WELL Building Institute**,** Analyst (2017), Senior Analyst (2018), Associate, Commercial Team (2019), Senior Associate, Australia & New Zealand (2019 – 2021), Manager Asia Pacific (2021)