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.*