

The future of public health



Nearly 44 million uninsured Americans. New genetic technologies. Socioeconomic inequalities and their impact on health. Toxic agents in the environment. Obesity. Infectious disease. Health care quality and finance. Bioterrorism. The globalization of health.

These are some of the dramatic challenges confronting us today. At the **University of Michigan School of Public Health**, we are prepared to address such complexity. First, the school has established a network of academic research centers designed to facilitate interdisciplinary approaches to complicated problems. Second, we are launching an ambitious program to recruit a new generation of junior faculty members with the potential to be tomorrow's public health leaders and to change the way we think about health and disease. As a capstone to these efforts, we have begun a major new building project, creating a crossroads of activity that will foster innovations in research, teaching, and service.

...is here.

For over 120 years, Michigan has been a world leader in public health. With these major initiatives, we begin a new era of discovery and innovation.

Noreen M. Clark

Dean

School of Public Health

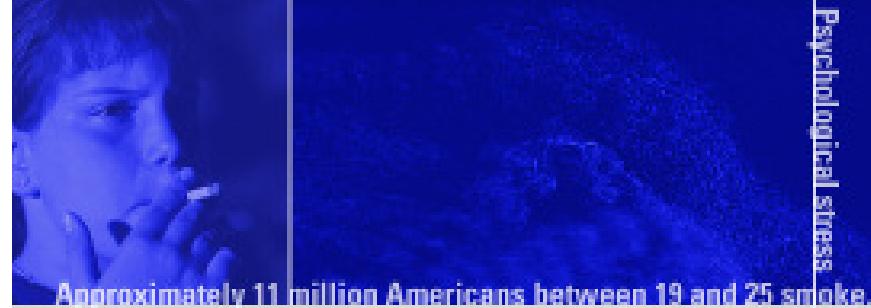


The future of public health is a Crossroads of disciplines.

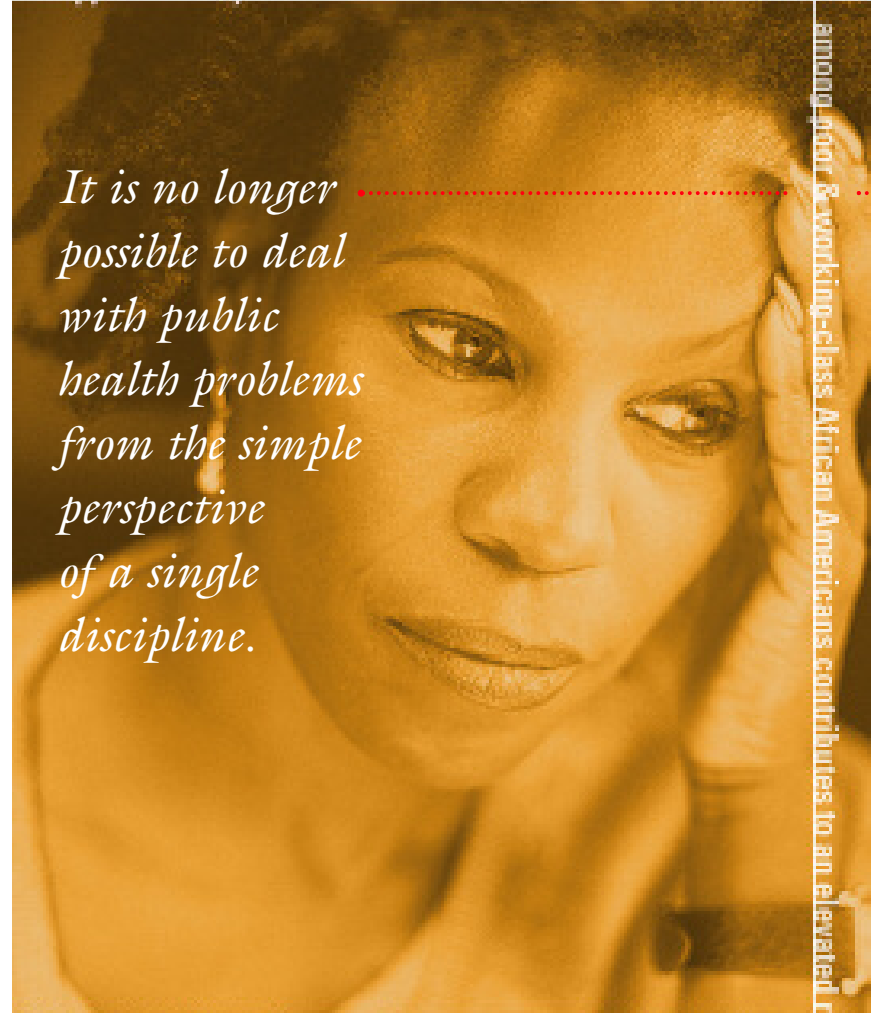
The University of Michigan School of Public Health has created a vibrant network of **research and training centers** designed to promote interdisciplinary work within the school, across the university, and with colleagues around the world. Today the collaborative approach to research is essential. Michigan's centers bring together experts from a variety of disciplines who are intrigued by complexity and who bring their collective talents to problem-solving. The prevention and treatment of infectious disease, for instance, demand an understanding of genetics, environmental factors, health behavior, pharmacology, and epidemiology. Similarly, the problem of teen smoking must be approached from a variety of perspectives — behavioral, economic, legal, medical, and psychological.

Each of the school's centers addresses a critical public health problem. Each is a nexus of intellectual activity. Together the centers constitute an exciting crossroads of scientific inquiry and rapid application of knowledge. Led by faculty who are eager to move beyond their own disciplines, who envision new approaches to scholarship, and who are reaching out to the wider community, the centers are a vital platform for sharing expertise and exerting leadership for change.

Under the direction of Professor MaryFran Sowers, the Center for Integrative Approaches to Complex Diseases brings together researchers from multiple disciplines to explore new ways of understanding the causes, prevention, and control of diseases of major public health importance, including arthritis, osteoporosis, and diabetes.



Approximately 11 million Americans between 19 and 25 smoke.



It is no longer possible to deal with public health problems from the simple perspective of a single discipline.

Psychological stress among poor & working-class African Americans contributes to an elevated risk for hypertension.



Two million people cross international borders each day.



36,000 people in the U.S. die annually from flu-related causes.



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Academic Research and Training Centers at the School of Public Health

Academic Center for Public Health Preparedness

Asthma Research Collaborative

Biometrics and Outcomes Research Core

Center for Health Care Leadership

Center for Integrative Approaches to Complex Diseases

Center for Molecular and Clinical Epidemiology of Infectious Diseases

Center for Population Planning

Center for Research on Ethnicity, Culture and Health

Center for Risk Sciences and Communication

Center for Social Epidemiology and Population Health

Center for Statistical Genetics

Detroit Community-Academic Research Center

Economic Research Initiative on the Uninsured

Global Health Program

Michigan Center for the Environment and Children's Health

Michigan Center for Genomics and Public Health

Michigan Public Health Training Center

Prevention Research Center of Michigan

Tobacco Research Network

The future of public health is a Crossroads of ideas.

One of the nation's oldest schools of public health, the University of Michigan School of Public Health has long attracted visionary scholars. The founder of the school's Department of Epidemiology, Professor Thomas Francis Jr., developed the first killed-virus influenza vaccine for U.S. troops during World War II. Jonas Salk, who worked as a research assistant for Francis, used Francis's technique to create a vaccine that effectively eradicated the scourge of polio. Most recently, the Food and Drug Administration approved a revolutionary new attenuated live-virus nasal spray influenza vaccine developed by Professor John Maassab.

In the 1940s, Professor Nathan Sinai developed the prototype voluntary health insurance plan that became known as Blue Shield. Decades later, Professor Avedis Donabedian's celebrated work on health care quality set the standard for performance and evaluation. Currently Professor Brant Fries's patient-assessment methodology for improving the quality of long-term care is enhancing health services worldwide. The school's pathbreaking work continues in areas as diverse as public health genetics, global health, reproductive and women's health, health insurance, nanotechnology, and the interrelationship of ethnicity, culture, and health.

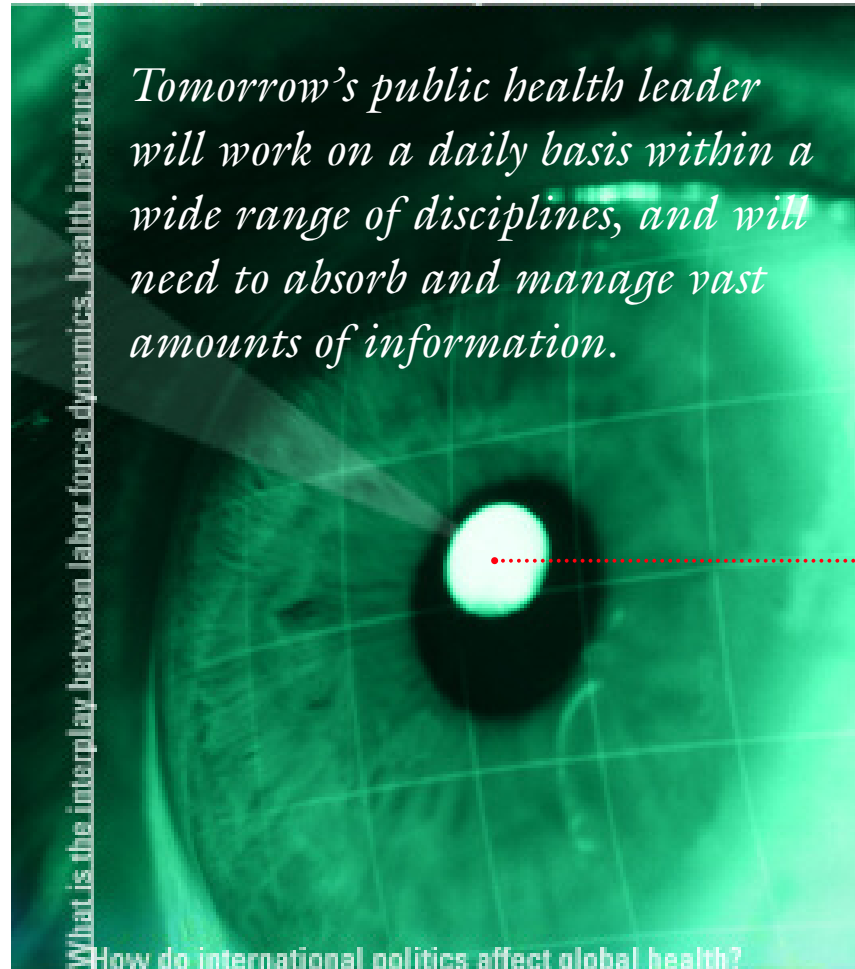
Now we must nurture a new kind of scholar, **academic leaders** whose work moves beyond traditional boundaries. The school is initiating recruitment of more than a dozen new junior faculty members who will be highly interdisciplinary in their approach to research and teaching. These new leaders will help pioneer fresh ways of solving the most pressing public health problems. They will create new disciplines and transform public health.



In collaboration with researchers in the School of Engineering, Professor Ted Zellers of the Department of Environmental Health Sciences is developing a miniature analytical device capable of measuring complex mixtures of volatile organic chemicals at trace concentrations in a matter of minutes. When the project is complete, workers in high-risk occupations will be able to wear the device as a means of monitoring and protecting against chemical and microbial exposures.



Tomorrow's public health leader will work on a daily basis within a wide range of disciplines, and will need to absorb and manage vast amounts of information.



How do international politics affect global health?



Can researchers see cell activity in real time?



University of Michigan School of Public Health faculty are currently at the forefront of research and teaching on a broad range of topics vital to public health, including:

- Nanotechnology
- Child health
- Risk communication
- Genomics
- Bioinformatics
- Disease management
- Women's health
- Digital radiology
- Aging
- Infectious disease
- Biocomplexity
- Cognitive neuroscience
- Substance abuse
- Workplace safety
- Targeted vaccines
- Web-based learning
- Mental health
- Bioterrorism preparedness
- Health care quality
- Global health
- Nutrition
- Community-based and evidence-based practice
- Health insurance
- Reproductive health
- Tobacco policy
- Youth violence
- Participatory research

The future of public health is a Crossroads of people.

The global nature of today's health problems means that public health professionals must confront issues from multiple perspectives.

Like Sanjani Varkey, Dang Nguyen, and Kacey Ernst, School of Public Health students in all disciplines will be able to exchange ideas both locally and globally via the Crossroads.



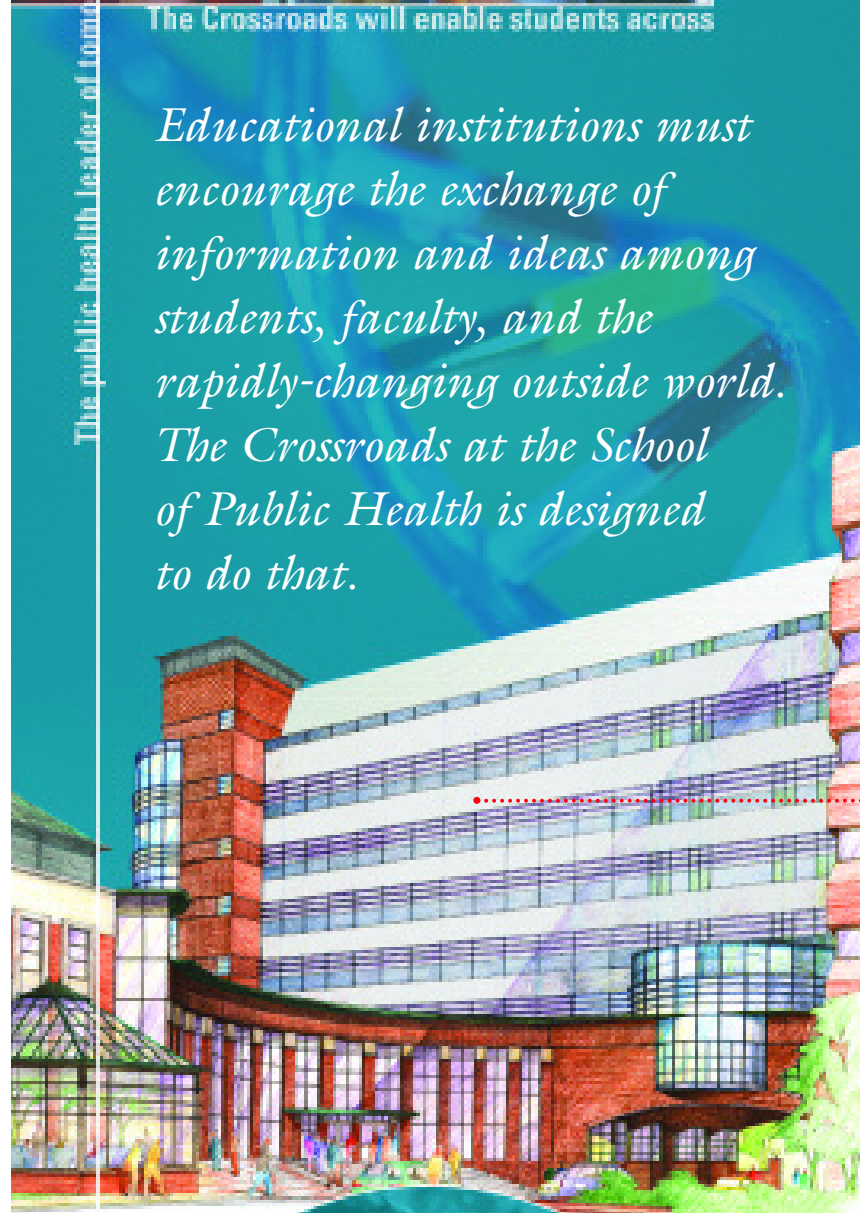
The University of Michigan School of Public Health is in the midst of new construction that will turn our physical facilities into a **crossroads of theory and practice, community and academe, research and teaching.** The building plans reflect the school's longstanding tradition of interdisciplinarity and herald our future direction. A literal as well as a metaphorical "crossroads," the new School of Public Health facility will allow for greater collaboration among faculty, students, staff, and communities of all kinds. It will enable students across departments to exchange ideas with each other and with colleagues nearby and throughout the world. Shared classroom spaces will be more centralized. Conference rooms and communication-technology hubs will enhance the school's public-focused activities as well as our local, national, and international partnerships.

State-of-the-art laboratories will further ensure that School of Public Health faculty members remain at the forefront of new developments in research and teaching. Students who come to Michigan learn to work with people from the widest possible range of backgrounds and experiences. They graduate not only with expertise in their field of specialization, but with a broad outlook and the ability to draw from across disciplines. The Crossroads will increase interaction and expand perspectives.



contact with colleagues worldwide
departments to exchange ideas
The Crossroads will enable students across

Educational institutions must encourage the exchange of information and ideas among students, faculty, and the rapidly-changing outside world. The Crossroads at the School of Public Health is designed to do that.



Both functionally and symbolically, the master architectural plan unifies the two existing School of Public Health buildings with a third, and connects all with a two-story open center housing classrooms, conference rooms, outreach programs, communication hubs, an atrium cafe, and other amenities to foster the interaction of people, ideas, and disciplines.

A new, seven-story glass tower, containing modular laboratories, rises within the Crossroads. The tower doubles the school's research capabilities and provides extensive opportunity for multidisciplinary collaborations.

The school's original building is undergoing total renovation.



University of Michigan School of Public Health

Imagine a world where all people have access to affordable, high-quality health care, where children in every community can count on clean air and sound nutrition, where HIV and AIDS no longer threaten whole populations, where workplace safety is a given, and where chronic diseases such as diabetes, asthma, and arthritis are fully controlled.

This is the world we are working to create. As part of the university's vast research enterprise, known worldwide for its **multidisciplinary scholarship and teaching**, the University of Michigan School of Public Health is uniquely prepared to confront the complex challenges of our age. Through a crossroads of disciplines, ideas, and people we are finding answers to today's problems and changing the future.



University of Michigan School of Public Health students, graduates, and faculty are working together in local neighborhoods and across the globe to develop creative solutions to today's public health problems.

The future begins here.





School of Public Health Website

www.sph.umich.edu

UM Website

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