

EPIDEMIOLOGY INNOVATION IS OUR WORK



Improving the health of a population requires deep understanding of who is healthy and who is not, the causes of poor health, how illness can be prevented, and optimal times for prevention and treatment activities.

MITRE's epidemiologists understand that improving the health of the nation requires focus on the who, what, why, when, and how of disease and health-related factors. They apply their epidemiologic expertise in the fields of infectious and chronic diseases, behavioral and environmental health, public health policy and informatics, and emergency preparedness and response to solve the most complex population and public health problems.

The special relationship MITRE has with our federal partners—in which the MITRE team sits on the government side of the table while maintaining objectivity—allows our epidemiologists to inform and advise the development of long-term strategies to improve surveillance and public and population health. Because MITRE epidemiologists have no commercial conflicts of interest; they can conduct population health analyses that account for explicit budgetary constraints and use other sensitive data that might not be accessible by non-profit contractors.

Epidemiologists are the disease detectives of the health arena, helping to solve the fundamental mysteries around how to achieve better health for everyone.

Addressing the full spectrum of health and disease

Improving patient outcomes and population health requires consideration of disease life cycle, social determinants of health, health policy, disease prevention, and health promotion and education. MITRE's epidemiologists use information from a variety of traditional and non-traditional sources to identify disease patterns, understand the community-level health impacts of policy and program changes, and evaluate and communicate risks and strategies for prevention and treatment. They also develop tools and metrics tools and metrics to study and monitor risks, exposures, disease progression, and population health outcomes.

Grounded in local health

The future of health is local. Fortunately, many of MITRE's epidemiologists have experience working in state and local health departments, including the investigation and management of infectious disease outbreaks. They keep our sponsors apprised of those perspectives during solutions development. A MITRE epidemiologist, who has a doctorate in veterinary medicine and experience working as a state public health veterinarian, brings the One Health perspective—understanding the interconnectedness of the health of people, animals, and the environment—to projects. Another epidemiologist combines education and experience in clinical medicine with experience at a local health department to deliver stellar products to MITRE's clients. All of MITRE's epidemiologists bring nuanced understanding of data collection opportunities and many have direct experience with the challenges faced by local and state health departments to projects.

The experience of working in local and state health departments, coupled with a clear understanding of sponsor needs and MITRE expertise, uniquely enables us to provide a multi-disciplinary and objective viewpoint when addressing population and public health challenges. MITRE's epidemiologists provide the nexus of health IT, data, and health and public health programs to improve community health.

Asking the right questions to provide evidence-based solutions

MITRE's epidemiologists have deep cross-domain knowledge in information systems and standards, as well as experience working in biomedical, public health, healthcare, and other health-related fields. They understand the challenges unique to working with real data and they know how to build tools that ask the right questions. Our epidemiologists are able to decode the vernacular of the many health, biomedical, policy, and technical domains to better understand the sponsor's unique needs. The solutions they recommend are based in the best, and most current, science and cross the spectrum from information gathering to using data in ways that inform systems implementation and policy development.

MITRE experts work to improve population health by measuring and analyzing disease and health-related factors across and within populations.

For more information about MITRE's work in Epidemiology, contact the Public Health Division publichealth@mitre.org.

MITRE's mission-driven teams are dedicated to solving problems for a safer world. Through our public-private partnerships and federally funded R&D centers, we work across government and in partnership with industry to tackle challenges to the safety, stability, and well-being of our nation.

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FOR A SAFER WORLD®