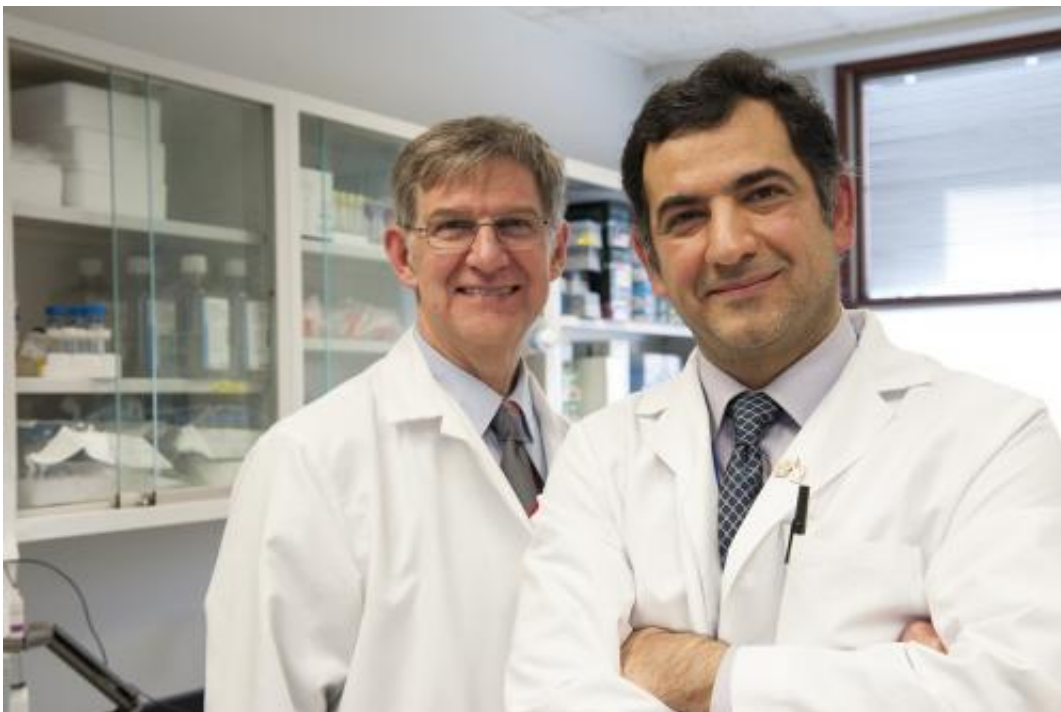


Researchers identify risk factors for little-known lung infection

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Dean Schraufnagel, professor of medicine, and Mehdi Mirsaeidi, pulmonary and critical care fellow. Credit: Roberta Dupuis-Devlin

Severe and sometimes fatal lung disease caused by a group of bacteria in the same family as those that cause tuberculosis is much more common than previously thought, with Caucasians 55 and older at greatest risk, report researchers from the University of Illinois at Chicago College of Medicine.

The study is published online March 14 in *PLOS ONE*.

Nontuberculous mycobacteria (NTM) include more than 150 types of bacteria, found in water and soil, that can infect the lungs when inhaled. Unlike tuberculosis, NTM is not contagious and cannot spread from person to person. The [infection](#) is treatable, but antibiotic therapy is expensive and can take up to two years.

Rates of infection have climbed significantly since the 1980s. But while researchers suspect that deaths caused by NTM have also risen, the mortality rate and associated [risk factors](#) have remained unknown.

"There have been some studies suggesting that lung infections caused by NTM have been increasing in North America, especially in people aged 50 years or older," says Dr. Mehdi Mirsaeidi, UIC pulmonary and critical care fellow and lead author of the paper.

"We wanted to know more about exactly who is most at risk for acquiring NTM and dying from it, so that we could develop strategies for preventing infection."

The researchers looked at the cause of deaths in the U.S. between 1999 and 2010. NTM was listed as immediate cause of death for 2,990 people—of whom 87 percent were 55 or older, 85 percent were white, and 52 percent were female.

The researchers also found that the age-adjusted NTM mortality rates were uneven across the U.S. Residents of Hawaii, the state with the highest rate, were almost nine times more likely to die from NTM than were residents of Michigan, with the lowest rate. Louisiana, Arizona, South Carolina, North Carolina and Florida also had high NTM mortality rates.

"The reason for this variation is unknown," Mirsaeidi said.

NTM-related deaths also correlated with smoking, cancer, HIV infection, and chronic [obstructive pulmonary disease](#).

But the strongest association was between NTM disease death and older age, Mirsaeidi said.

"We expect to see the numbers of deaths attributable to NTM rise as the population continues to age and the numbers of older Americans continue to grow."

"People and physicians need to be aware of NTM, especially as we see more of it, and because it can look like a lot of other pulmonary diseases," Mirsaeidi said. Patients usually present with a cough, and correct diagnosis can take years, he said.

"Having a better understanding of the risk factors associated with NTM will give us a better chance of diagnosing it faster. This is important, because it's largely a curable infection."

More information: Nontuberculous Mycobacterial Disease Mortality in the United States, 1999–2010: A Population-Based Comparative Study, *PLoS ONE*, 2014. [DOI: 10.1371/journal.pone.0091879](https://doi.org/10.1371/journal.pone.0091879)

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