

Geographic co-occurrence of mesothelioma and ovarian cancer incidence United States 2003–2015

S. Jane Henley¹, Lucy A. Peipins¹, Sun Hee Rim¹, Theodore C. Larson², Jacqueline W. Miller¹, Manxia Wu¹

1. Division of Cancer Prevention and Control, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, GA
2. Division of Toxicology and Human Health Sciences, Agency for Toxic Substances and Disease Registry, Atlanta, GA

BACKGROUND

Asbestos contributes to the development of ovarian cancer, as well as mesothelioma, the sentinel asbestos-associated cancer. Mesothelioma incidence varies by state, likely reflecting different levels of asbestos exposure. We hypothesized that states with high mesothelioma incidence may also have high ovarian cancer incidence.

PURPOSE

To examine the geographic co-occurrence of ovarian cancer and mesothelioma, using data from U.S. Cancer Statistics (USCS).

METHODS

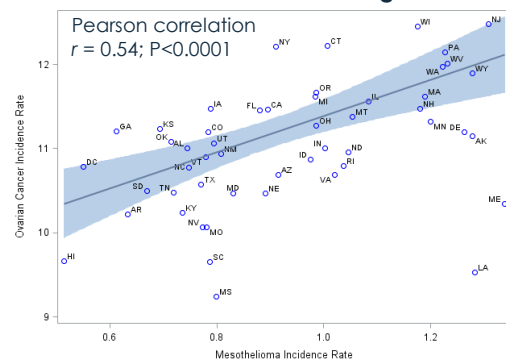
Using USCS, which includes new cancer cases from NPCR and SEER population-based cancer registries, we examined the geographic co-occurrence of microscopically confirmed mesothelioma and ovarian cancer incidence rates by U.S. state for 2003–2015.

RESULTS

Annual number and rate* of new cases

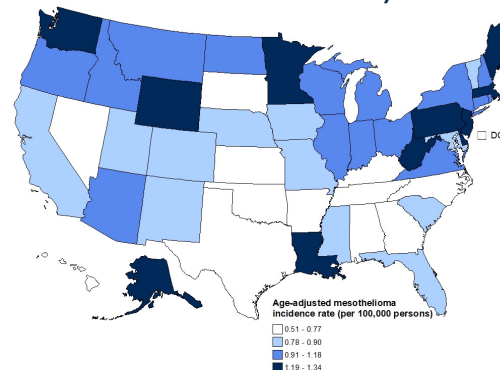
	Annual No.	Rate
Ovarian	21,617	12.16
Microscopically confirmed	19,830	11.24
Mesothelioma	3,253	1.00
Microscopically confirmed	3,043	0.94
Females	716	0.40
Males	2,327	1.68

Correlation between mesothelioma and ovarian cancer incidence* among U.S. states

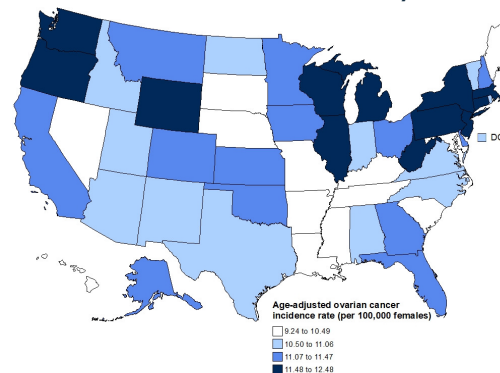


*Incidence rates were average annual cases per 100,000 persons, age-adjusted to the U.S. 2000 standard population.

Mesothelioma incidence rates* by U.S. state



Ovarian cancer incidence rates* by U.S. state



CONCLUSION

Data from U.S. population-based cancer registries show that incidence rates of ovarian cancer were positively correlated with mesothelioma among U.S. states, suggesting asbestos may be a common exposure. The greatest impact to reduce mesothelioma and ovarian cancer incidence may come from cancer control efforts directed at primary prevention of established risk factors, including asbestos.

IMPACT

The potential for asbestos exposure has declined since the 1970s because fewer products contain asbestos; however, some products, materials, and buildings may still release asbestos and thousands of workers and their family members may be exposed. Ensuring that people are protected from exposure to asbestos in their workplaces, homes, schools, and communities may reduce the risk of several cancers, including mesothelioma and ovarian cancer.



Centers for Disease Control and Prevention
National Center for Chronic Disease Prevention and Health Promotion



CONTACT INFORMATION

Jane Henley, MSPH, Epidemiologist
Cancer Surveillance Branch, Division of Cancer Prevention and Control
Centers for Disease Control and Prevention, Atlanta GA
shenley@cdc.gov