

Study finds lack of racial diversity in cancer drug clinical trials

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New research published this week in *JAMA Oncology* has found a lack of racial and ethnic diversity in clinical trials for cancer drugs.

The study—conducted by researchers from UBC, the University of Texas MD Anderson Cancer Center, the Fred Hutchinson Cancer Center in Seattle and Baylor University in Texas—raises concerns about the effectiveness of [cancer drugs](#) in some patients, especially since [genetic differences](#) may affect how well a patient responds to a drug.

The researchers found that fewer than eight per cent of cancer drug trials reported participation from the four major races in the United States—white, Asian, black and Hispanic—between 2008 and 2018. Black and Hispanic patients were particularly underrepresented at 22 per cent and 44 per cent, respectively, considering their populations' incidence of cancer.

"Our findings show that the science might not be applicable to the population that's going to receive the medications," said the study's lead author, Dr. Jonathan Loree, assistant professor in the department of medicine, division of medical oncology. "If patients are going to be receiving the drug, we need to know that it's going to work for them with the same effectiveness that's seen in the trial."

Loree cited an example of a medication used to treat lung cancer that showed mediocre trial results in the [global population](#), but exhibited incredible success with [young women](#) who had never smoked in a study

in Asia due to a genetic mutation that's common in this population.

The researchers found that both reporting about race in trials and enrolment rates had changed minimally over the decade.

For this study, Loree and colleagues reviewed all reported trials supporting U.S. Food and Drug Administration (FDA) oncology drug approvals granted between July 2008 and June 2018. They scrutinized 230 trials with a total of 112,293 participants. They calculated the U.S. population-based cancer estimates by race using National Cancer Institute and U.S. Census data.

Although the researchers used U.S. data, Loree said the findings are relevant in Canada, as well. Pharmaceutical companies typically apply for drug approvals through the FDA first, because it serves the largest market, and then submit to the European Medicines Agency and Health Canada. The trials considered in the approvals are usually the same.

"One thing particularly relevant to the Canadian context is that we weren't able to analyze the participation of Native Americans in [trials](#) because there were only 13 patients reported out of a total of 112,000 participants," Loree said. "That's shocking and definitely shows an area where improvement is needed."

The researchers are now looking at whether [clinical trials](#) represent the same gender ratio as the general population to ensure the drugs are effective in all people.

More information: *JAMA Oncology* (2019). [DOI: 10.1001/jamaoncol.2019.1870](https://doi.org/10.1001/jamaoncol.2019.1870)

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