



Key Drivers of Cancer In Iowa

Frequently Asked Questions

1. WHAT IS THIS PROJECT GOING TO DO? WHY IS THIS PROJECT IMPORTANT?

Cancer is complicated. No one factor causes cancer. Like a puzzle, multiple pieces are required before someone develops cancer. If one puzzle piece is missing, cancer may not develop. This study will detail all the puzzle pieces available to understand which pieces may be contributing to Iowa's high cancer rates. The different pieces of the cancer puzzle include behavioral, environmental, and genetic risk factors.

This project will study many known risk factors for cancer. Areas in Iowa with higher cancer rates than expected after reviewing the area's risk profile (e.g. smoking rates) will be identified. It is important to gain better understanding of the risk factors that may be driving the high rates of cancer in Iowa so these risk factors can be targeted for evidence-based interventions and policies that can reduce Iowans' burden of cancer.

2. WHAT CANCERS ARE BEING RESEARCHED IN THIS PROJECT? WHY WERE THOSE CANCERS CHOSEN?

Six specific cancers were chosen: prostate, breast, melanoma, lung, colorectal, and those due to human papillomavirus (HPV). In Iowa, rates for prostate, breast, and melanoma are increasing faster than in other states. The rates for lung cancer are declining more slowly than in any other state. Iowa's colorectal cancer rates are higher than those in most other states, while Iowa's oropharyngeal cancer rate, an HPV associated cancer, is the highest in the nation.

3. WHERE ARE YOU GETTING THE INFORMATION ON CANCER DIAGNOSES?

The Iowa Cancer Registry is one of the usable data sources for this project as the registry collects information on cancers diagnosed among residents of Iowa from the time of diagnosis through the end of their life. Cancer registrars at all cancer centers in Iowa collect this information from medical records of cancer patients. Since 1982, cancer has been a reportable disease in Iowa as codified in the Iowa Administrative Code (IAC) [Public Health 641, Chapter 1, Section 139A]. As designated in the IAC, the Iowa Cancer Registry is a Public Health Authority for purposes of collecting cancer data in Iowa [IAC 641 – 1.2 (139A)]. The Iowa Cancer Registry does not collect information on risk factors for cancer such as people's behavior or their exposures to cancer causing agents.

4. ARE CANCER RATES GOING UP BECAUSE MORE PEOPLE ARE GETTING SCREENED FOR CANCER AND THEREFORE MORE CANCER IS BEING DISCOVERED?

Iowa's cancer incidence has been rising since 2013 while Iowa's screening rates have remained stable and near national averages. If the rate of cancer was increasing because screenings have increased, then there would be a significant increase in Iowa's cancer screening rates during this time as well.

5. WHAT WILL THIS PROJECT TELL US ABOUT THE CAUSES OF CANCER IN IOWA?

This project will systematically investigate known behavioral risk factors and will determine what data sources are available to assess environmental, and genetic risk factors for cancer. This project will provide a better understanding of the factors that could be contributing to Iowa's high cancer incidence as the project progresses. The project will also help identify critical data gaps that hinder effective cancer prevention today.

6. WHY IS DETERMINING THE CAUSE OF CANCER SO COMPLICATED?

Cancers are caused by multiple risk factors working together to alter the way our cells function. There is no one cause for cancer; rather it is the complex interplay of different genetic, behavioral, and environmental factors that produce cancer. Some cancers take decades to develop, and exposures to risk factors generally change over time. It is therefore very difficult to accurately assess people's exposures to cancer risk factors over long periods of time, particularly as many people do not live in the same place their entire lives.

7. WHAT IS MEANT BY "BEHAVIORAL RISK FACTORS"?

"Behavioral risk factors" are things we do that might put us at greater risk for cancer like using tobacco, drinking alcohol, not eating enough fruits and vegetables, and using tanning beds.

8. WHAT IS MEANT BY "ENVIRONMENTAL RISK FACTORS"?

Environmental risk factors are exposures to things in the environment that could contribute to a person's risk of developing cancer. Some environmental risk factors are naturally occurring like radon or arsenic, while other exposures might be from pollutants or man-made chemicals. These exposures often happen many years or decades before someone develops cancer.

9. HOW DO GENES CONTRIBUTE TO THE DEVELOPMENT OF CANCER?

Genetics control how our cells grow, divide, and die. Some genes can encourage cell growth and division, which might contribute to cancer. Other genes can control or stop cell growth and division, which can help prevent cancer. As people age, the function of these genes can change as cells divide or the genes can be damaged by exposures, like UV rays from the sun.

10. HOW WILL THIS PROJECT LEAD TO RECOMMENDATIONS ABOUT HOW TO PREVENT CANCER?

Through the undertaking of this work, critical data gaps that hinder effective cancer prevention today will be identified. Once the contributing cancer risk factors have been identified, recommendations for evidence-based/evidence-informed strategies can be made to reduce the risk of cancer and prevent future cancers from forming. As information continues to be collected and analyzed over time, key questions will be more effectively answered, enabling evidence-based decisions to be made that address Iowa's elevated cancer rates both now and in the future.

FOR MORE INFORMATION ABOUT THIS PROJECT EMAIL YOUR QUESTIONS TO CPH-IPHRP@UIOWA.EDU