

2023 NPCR ILLINOIS SUCCESS STORY

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From Registry Data to Analysis and Dissemination: A Population-Based Cancer Incidence Investigation

National Program of Cancer Registries SUCCESS STORY

SUMMARY

At the request of the US Environmental Protection Agency (US EPA), the Illinois State Cancer Registry (ISCR) at the Illinois Department of Public Health (IDPH) assessed cancer incidence in the Illinois populations downstream of, and surrounding, an emitter of perfluoroalkyl and polyfluoroalkyl substances (PFAS) near Cordova, Illinois. Current scientific evidence suggests that PFAS are possibly carcinogenic to humans. The cancer incidence investigation was completed, and results disseminated through a published report and partner meetings.

CHALLENGE

- IDPH was asked to produce an analysis to answer the following question: Is there evidence of increased cancer incidence in the areas surrounding a Cordova, IL facility that is consistent with cancers associated with PFAS exposure?
- Maintaining scientific objectivity and open communication with interested parties (US EPA, congressional staff, IDPH staff) during this process was an important goal.
- Many times, requestors expect a cancer incidence investigation to find excess cancers associated with an environmental exposure in the location of concern.
- It was very important for IDPH staff to communicate the results from the investigation clearly within the context of the study design, data used, and associated methodological limitations regardless of partner expectations.

SOLUTION

- A population-based cancer incidence investigation was begun in June of 2022 using CDC guidelines (<https://www.cdc.gov/nceh/cancer-environment/guidelines/>). Standardized incidence ratios were created for study areas using ISCR incident case counts and ZIP Code-level population estimates, and results were shared.
- Partners were updated regularly as IDPH staff completed tasks such as geocoding, data analysis, and methodological discussions.

RESULTS

- Following public release of the study (<https://dph.illinois.gov/content/dam/soi/en/web/idph/publications/idph/data-and-statistics/epidemiology/cancer-registry/cancer-incidence-assesment-cordova-il-pfas-96-19-final.pdf>), several meetings were held to inform partners, provide an overview of the study, and address additional questions. This approach resulted in partners gaining a greater understanding of the limits of population-based cancer incidence investigations and positive reception of the results.
- The following briefly summarizes the results of the investigation: “This assessment included 82 standardized incidence ratios and found 11 where the observed rates of specific cancers were significantly lower in the populations being examined. There was no consistent evidence for an association between cancer and PFAS exposure in the populations examined. The pattern of cancer rates observed in this study differ from the findings of other studies that observed elevations in testicular, kidney, and female breast cancers. Additional study of PFAS at the population level is recommended.”
- Communication with partners as to the progress of the study and details around the results, methods, and limitations was key to supporting understanding of the current and future population-based cancer incidence investigations and the information they provide.

SUSTAINING SUCCESS

- Completion of this investigation was made possible by the high-quality population-based cancer surveillance data collected and maintained by ISCR staff.
- Future monitoring of cancer specific to the areas in this investigation will continue through ongoing cancer surveillance by the ISCR.
- ISCR developed standard operating procedures to institutionalize internal and external communication activities as they relate to cancer incidence investigations.

REGISTRY CONTACT

<https://dph.illinois.gov/data-statistics/epidemiology/cancer-registry>



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