



# Black Lung Incidence Study Navajo Nation Research Brief

## SUMMARY

In 2022, the Chief Evaluation Office (CEO) partnered with the [Mine Safety and Health Administration](#) (MSHA) and commissioned contractor Summit Consulting, LLC (Summit) to conduct the Black Lung Incidence Study. The study included a literature review to explore the current state of knowledge on black lung disease—particularly black lung disease among populations of interest and the link between coal mining or residential coal use and black lung disease—and a statistical analysis of publicly available data from various time periods spanning 1970–2021 to identify black lung incidence, determine whether the factors related to higher rates of black lung disease can be distinguished, and design a series of predictive models that attempt to estimate black lung incidence across the United States.

The Navajo Nation was a population of interest in the study. The information presented in the Navajo Nation Research Brief synthesizes the findings from the Black Lung Incidence Study Final Report and the Black Lung Incidence Literature Review that are specific to the Navajo Nation. These findings are supplemented with information and recommendations for future research obtained during interviews with subject matter experts that have experience working closely with the Navajo Nation to conduct black lung disease research in the Navajo Nation.

This Department of Labor-funded study was a result of the learning agenda process. It contributes to the labor evidence-base to inform [data, methods, and tools](#) and [worker protection, labor standards, and workplace-related benefits](#) programs and policies and addresses Departmental strategic goals and priorities.

## KEY TAKEAWAYS

- There is a public health burden in the Navajo Nation related to residential coal use and coal mining, both of which have historically been important to the Navajo economy.
- According to statistical models designed to estimate black lung prevalence in the Navajo Nation by considering factors associated with black lung disease, estimated black lung prevalence is higher than reported in publicly available data from Centers for Disease Control and Prevention (CDC) The National Institute for Occupational Safety and Health's (NIOSH) Enhanced Coal Workers' Health Surveillance Program (ECWHSP) and CDC Wide-ranging ONline Data for Epidemiologic Research.
- Underreporting of black lung cases and deaths in the Navajo Nation may result from lack of trust in and access to healthcare and lack of trust in both researchers and the federal government.



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- Future research efforts should be in direct collaboration with members of the Navajo Nation and organizations trusted by the Navajo Nation to create trust, mitigate cultural misunderstandings, and add credibility to the research.

[SEE FULL STUDY](#)

**TIMEFRAME:** 2022-2024

**SUBMITTED BY:** Summit Consulting

**DATE PREPARED:** January 2024

**PARTNER AGENCY:** Mine Safety and Health Administration

**SPONSOR:** Chief Evaluation Office

**CEO CONTACT:** [ChiefEvaluationOffice@dol.gov](mailto:ChiefEvaluationOffice@dol.gov)

*The Department of Labor's (DOL) Chief Evaluation Office (CEO) sponsors independent evaluations and research, primarily conducted by external, third-party contractors in accordance with the [Department of Labor Evaluation Policy](#). CEO's [research development process](#) includes extensive technical review at the design, data collection and analysis stage, including: external contractor review and OMB review and approval of data collection methods and instruments per the Paperwork Reduction Act (PRA), Institutional Review Board (IRB) review to ensure studies adhere to the highest ethical standards, review by academic peers (e.g., Technical Working Groups), and inputs from relevant DOL agency and program officials and CEO technical staff. Final reports undergo an additional independent expert technical review and a review for Section 508 compliance prior to publication. The resulting reports represent findings from this independent research and do not represent DOL positions or policies.*