Community Success: Screening for Lung Cancer in Rural Nevada

BACKGROUND

Lung cancer is the most common cause of cancer death in the United States and in Nevada, taking the lives of nearly 1,300 Nevadans each year. Many cases of lung cancer are preventable, and the disease is most often caused by smoking. Exposure to radon, secondhand smoke, and carcinogens such as asbestos, and a family history of lung cancer are other contributors.

According to the Centers for Disease Control and Prevention, about 15% of adults in Nevada smoke. Many more are exposed to secondhand smoke in the workplace due to exemptions in the Nevada Clean Indoor Air Act that allow for smoking in casinos and bars—the largest part of the state's hospitality industry.

Nevada is a state that has also been slow to increase lung cancer screenings, which have been



recommended since 2013 with the use of low-dose computed tomography (LDCT). Only 7.4% of people at high risk of lung cancer received lung cancer screenings in 2022—placing Nevada near the bottom of states for this measure.

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CHALLENGE

Winnemucca is a small rural town in northern Nevada's Humboldt County. It has a population of 8,600 and is known for its heavy mining industry and designation as the "friendliest town in Nevada."

Humboldt County, along with Nevada's other rural counties, has a higher rate of smoking than the rest of the state. Nearly 60% of residents have smoked at some point in their lives—as compared to just 40% for the state average—and at least a third of those people are current smokers.¹ Diane Klassen, a radiologic technologist at Humboldt Regional Hospital, said "Smoking is just a part of the mining culture here and across the state. Since so many of our residents are miners, we tend to have a higher rate of smoking. They just go hand in hand."

Winnemucca's high smoking rate is coupled with limited access to healthcare and the state's highest rate of uninsured residents. As of 2018, the latest data available, 13.4% of residents in Humboldt County were uninsured.² The bulk of the county—with nearly 80% of its residents—lies within a health professional shortage area. It's served by one hospital serving primarily Medicare and Medicaid-insured patients.



OPPORTUNITY

Klassen saw these statistics and knew that something must be done. With 30 years of experience as an imaging technician, she saw the development of a lung cancer screening program as a way to help her community improve their lung cancer outcomes.

ACTIVITY

Klassen, with the support of her hospital administration, began by building a screening eligibility form into the hospital's electronic medical records system. The form could be used by providers to screen current and former tobacco users and determine their lung cancer risk and screening eligibility. She then pulled a list of billing codes for physicians and hospitals to use, which would help to cover the costs of the program.

Klassen launched this lung screening program and worked with primary care and other providers to ensure they were discussing the screening with patients. She spoke with colleagues at mining company health clinics as well, getting the message about screening out to workers.

"Living in a small town, every patient that comes into the hospital is either family, a friend, or a neighbor."



Humboldt General Hospital has seen success with its lung screening program, thanks to a solid program foundation. Since July 2023,

97LDCT screenings performed

short-term follow-up findings

metastatic cancer found

21 incidental findings

OUTCOME

Humboldt General Hospital's lung cancer screening program is a model for other hospitals, especially those in rural communities. Klassen and her colleagues used planning, education and existing resources to build a program that serves the community. In addition to one metastatic cancer, another 21 incidental findings were discovered—non-lung cancers, but potentially other types of cancers, seen on the scans. "While we have a long way to go, it feels good to give something back to my community and help keep them healthy and safe," Klassen said.

NCC plans to build upon Klassen's program by helping educate and provide assistance to other rural Nevada hospitals. Several rural critical access hospitals have already received grant funding to purchase low-dose CT machines and it's the goal they each launch their own lung cancer screening program. The first step of this process, the development of a lung cancer screening toolkit for providers, was completed in November 2023. It includes many of the program materials Klassen developed for her program.

Citations:

- 1 Nevada Adult Tobacco Survey 2022, https://www.nnph.org/files/cchs/chronic-disease/media-reports/Nevada%20 Statewide%20Adult%20Tobacco%20Survey%202022.pdf
- 2 Nevada Rural and Frontier Health Data Book, https://med.unr.edu/statewide/reports-and-publications/nevada-rural-and-frontier-health-data-book