Issue Brief

Wisconsin Cancer Collaborative
REDUCING THE BURDEN TOGETHER

Radon in Wisconsin: Testing, Mitigation, and the Link to Lung Cancer

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Introduction

Radon is a colorless, odorless, radioactive gas that comes from the natural breakdown of uranium in soil, rock, and water.[1] During this process, the soil beneath and around a home or other building can be the source for radon intrusion into the indoor air, mainly via entry through cracks and spaces in the basement and foundation.[1] As uranium is naturally broken down, radon can also be found in groundwater, although the risk of exposure via groundwater in Wisconsin is generally much less than radon gas in indoor air. As a natural component of the Earth's crust and atmosphere, radon is found all over Wisconsin and the world.

Radon's Link to Lung Cancer

As radon decays, it breaks down into radioactive particles that can be inhaled. Once these particles enter your lungs, they can further damage the DNA in lung epithelial cells. Prolonged exposure to these DNA-damaging particles may lead to lung cancer. The association between radon exposure and lung cancer has been demonstrated throughout the literature in numerous cohort studies of miners over many decades, dating back to the 1960s.[2]

Key Takeaways

- Radon exposure is the leading cause of lung cancer among people who have never smoked and the second leading cause for people who have a history of smoking.
- There are opportunities to support improved radon testing, mitigation, and quality data collection to reduce exposure and decrease lung cancer risk.
- While there are radon protections in early child care settings, there is an opportunity for continued protection for students in K-12 schools to ensure that all students have limited radon exposure in their learning environments.

EPA Radon Infographic (EPA, 2021)

Lung cancer is the leading cause of cancer death and the third most commonly diagnosed cancer in both the United States and Wisconsin.[3,4] The American Cancer Society estimates that in 2025, 4,320 people in Wisconsin and 226,650 people nationally will be diagnosed with lung cancer. Of these cases, an estimated 2,340 people in Wisconsin and 124,730 people nationally are estimated to die from the disease.[5]

Although a history of cigarette smoking is the leading cause of lung cancer, exposure to radon is the second leading cause of lung cancer among people who smoke and the leading cause of lung cancer among people who have never smoked.[6] In the United States, the Centers for Disease Control and Prevention (CDC) estimates that 10-20% of lung cancers, or an estimated 20,000-40,000 cases, occur in people who have never smoked or who smoked less than 100 cigarettes in their lifetime.[7] For those who do smoke, a synergistic effect makes radon exposure especially dangerous. Exposure to high levels of radon can increase the lung cancer risk of a person who smokes by a factor of 10 compared to those who don't smoke.[6]

Researchers estimate that there are 962 cases of radon-induced lung cancer in Wisconsin,[8] and 500 lung cancer deaths are attributable to radon exposure in the state each year.[9]

Surgeon General's Warning About Radon

On January 13, 2005, the U.S. Surgeon General Richard H. Carmona released a national health advisory for radon.[10] The U.S. Environmental Protection Agency (EPA) recommends testing your home for radon and mitigating when radon levels exceed 4.0 picocuries per liter (4 pCi/L).[11] Although indoor radon levels can be reduced to low levels, the U.S. EPA believes that no level of radon is considered safe.

Radon and the Wisconsin Cancer Plan 2020-2030

Decreasing exposure to radon has been a state-level priority outlined in the Wisconsin Cancer Plan since 2010. The Wisconsin Cancer Plan 2020-2030 outlines three main strategies to decrease exposure to radon:

- Increase awareness of the connection between radon and cancer risk;
- Increase the testing for and mitigation of radon in homes and other buildings; and
- Increase the number of residential buildings built or remodeled using radon reducing methods.

Radon in Wisconsin

The U.S. EPA estimates that 1 in every 15 homes nationwide has high levels of radon while the Wisconsin Department of Health Services (DHS) estimates that 1 out of every 10 homes in the state has high levels.[10,12] The EPA has established three zones categorizing the potential for elevated indoor radon levels. Zone 1 has the highest potential for average indoor radon levels greater than 4 pCi/L. Wisconsin falls entirely into zones 1 and 2, meaning there is significant potential for elevated radon levels throughout the state.[13]

Although high radon levels pose a significant risk to one's health, recent estimates of Wisconsin residents surveyed via the Behavioral Risk Factor Surveillance Survey (BRFSS) indicate that 73.4% of respondents are aware of the health risks associated with radon exposure, yet only 22.1% of homeowners with a basement had reported they had previously tested their home for radon.[9]

Testing and Mitigation in Wisconsin

The only way to determine if a home or building has high radon levels is to complete a test. DHS recommends homes should be tested for radon every two years.[14] Test kits are typically set up in the lowest lived-in level of a home for a minimum of 48 hours and then sent to a laboratory for processing. Results are usually received in 1-2 weeks.

Radon test kit (DHS, 2025)

In Wisconsin, radon test kits are available through home improvement stores, online retailers, or a regional Radon Information Center (RIC).

Short-term kits can be as little as $7 or even free from your regional RIC during the month of January (National Radon Action Month).

DHS contracts with 17 local public health agencies across Wisconsin to serve as RICs and provide regional radon education and outreach to all 72 of Wisconsin's counties. RICs work closely with their communities to promote radon testing, mitigation, and radon-resistant new construction techniques with homeowners, landlords, builders, real estate agencies, schools and childcare centers, and other businesses. Since 2010, Wisconsin's RICs have distributed over 100,000 radon test kits to residents across the state.[15]

The EPA recommends mitigation for homes that exceed 4.0 pCi/L of radon in the indoor air.[11] Radon mitigation typically entails installation of a vent pipe system that moves radon away from the soil under your home and vents it outside, usually above the roofline - a process known as sub-slab depressurization.

Radon mitigation system (DHS, 2025)

Some mitigation systems and reduction strategies can reduce radon levels in a home by up to 99%. Even very high levels of indoor radon can be reduced to low levels.[11] If your home requires radon mitigation, it is recommended to work with a certified radon measurement and mitigation contractor. These contractors pass a national exam, maintain ongoing continuing education, have a quality assurance plan, and follow strict standards set by EPA-approved, third-party credentialing organizations for testing and mitigation practices.

As of 2025, 102 radon measurement and mitigation specialists in Wisconsin are certified through either the National Radon Proficiency Program or the National Radon Safety Board. **Figure 1** displays the geographical distribution of certified radon mitigation specialists, with the majority concentrated in southeastern Wisconsin. Many of Wisconsin's northernmost counties do not have a certified mitigation specialist based in their community, presenting a potential access barrier to radon mitigation services when needed.

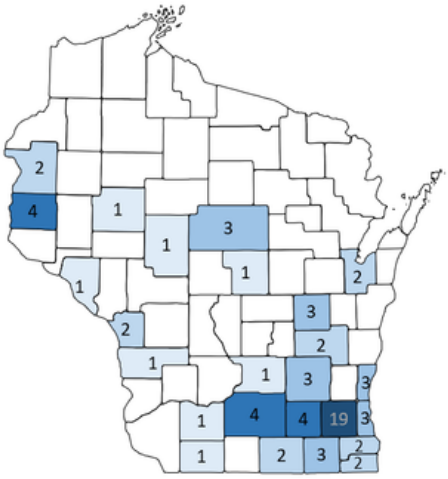

Figure 1 - Map depicting the number of certified radon mitigation professionals based in Wisconsin counties.

Challenges in Tracking Testing & Mitigation

Radon testing data are collected and reported by 17 RICs across Wisconsin. These data include the number of radon test kits that each RIC distributes during a year and the number successfully returned for laboratory processing. From October 2024 through September 2025, RICs distributed 8,672 short-term test kits and 6,639 were returned - a 76.5% return rate.[16] The high return rate demonstrates RICs' effectiveness at reaching their populations with radon information and encouraging follow-through with testing.

Though radon test kits can be purchased from a variety of private retailers, RICs and DHS are only able to track and report on test kits distributed through their own agencies. This means that the true number of homes that have been tested and have high radon in Wisconsin are likely much higher than what can be tracked by public health agencies alone. Although this is a data limitation, it presents an opportunity for state-level strategies and policies that could improve the quality of data collected and reported on radon testing in Wisconsin.

Additionally, tracking radon mitigation has similar data limitations as testing. Due to the lack of Wisconsin statute or administrative code for regulating radon mitigation businesses, contractors are not required nor obligated to report on mitigation activities to DHS or any other state or local agency. To this end, DHS cannot reliably estimate the number of homes or other buildings mitigated for radon throughout the state, nor how many people are protected from such efforts.

Radon in the Home: Tenants, Landlords, and Homeowners

U.S. Census data from 2019 estimate that there are over 2.7 million households in Wisconsin and the majority (67%) are owner-occupied.[17]

A recent study found that approximately 30% of Wisconsin homeowners and 31% of Wisconsin landlords have tested their properties for radon, leaving most homes likely untested.[9] In 2024, the Wisconsin Realtors Association reported that 67,746 homes were sold.[18] These real estate sales present an opportunity to promote radon education and testing during real estate transactions, a common practice and requirement in many other states.

Disclosure of awareness of unsafe radon levels is required on Wisconsin's Real Estate Condition Report (**Wis. Stats. 709.03**). However, radon is grouped with other environmental concerns and does not include education or a warning statement, as is done in Minnesota and Illinois (see **Table 1**). Likewise, there are currently no requirements in Wisconsin that mandate education and a warning statement about radon during the execution of a rental agreement between landlord and tenant.

While there are many different types of rental units or buildings that tenants occupy in Wisconsin, the EPA and the U.S. Surgeon General generally recommend testing for radon in all living spaces below the third floor where radon is more likely to concentrate.[19] With the absence of any law or requirement for regular radon testing and subsequent mitigation, tenants still have a right to safe and healthy housing and should discuss testing for radon with their landlord. Regional RICs can be a helpful resource for test kits, testing protocols, and results interpretation. They can also help property owners find certified testing and mitigation specialists near them.

Renting and Radon

Tenants in Wisconsin may face unique challenges with understanding and controlling their radon exposure. Landlords are not required to test for radon or to disclose known radon levels to prospective tenants. However, by Wisconsin law, (**Wis. Stats. 704**), landlords are required to promptly eliminate health hazards affecting the premises. Under this blanket law, tenants may have rights when high radon is impacting their unit.

Radon in Child Care Centers

After their home, a child's early care environment could be their next largest source of radon exposure. Children have smaller lungs and breathe at faster rates, which may increase the dose of potential radon exposure.[20] Exposure to high radon during childhood could increase a person's risk of developing lung cancer as they age.[20] Employees working in child care centers affected by high radon can also be impacted. Radon testing and mitigation in child care centers protects both child and employee health.

In March 2023, the Wisconsin Department of Children and Families (DCF) enacted changes to its administrative code that add radon protections in licensed family and group child care centers (**DCF rules 250 and 251**). The rule changes require childcare providers to:

- Test for radon within 6 months before providing care for children.
- Install a mitigation system if the test result is above 4 pCi/L, the "action limit" established by the EPA.
- Retest every two years for family care centers, or every 5 years for group centers. Retesting is required for care centers with and without radon mitigation systems installed.

WI DHS, 2025

From March 2023 to October 2025,
80 child care centers
across Wisconsin have mitigated high radon,
protecting at least 2,060 children
and their caretakers from exposure
to high radon levels.

Radon in Schools

While DCF regulations protect children from exposure to high radon in their licensed child care environment, children are not guaranteed protection from radon in their K-12 learning environment. In the absence of a radon testing and mitigation requirement for Wisconsin schools, DHS recommends that all schools test at least once every 5 years or upon completion of major renovations.

A recent study surveyed 443 school administrators and found that of the 231 completed responses, 43.2% of districts reported previous radon testing in their schools. Of the districts that had tested, only 25% took some kind of action (mitigation, fresh air ventilation, or retested) while nearly half (46.9%) reported they did nothing in response to their high radon test result.[9] Cost or lack of available funding were key reported barriers to radon testing and mitigation.

Policy, Systems, and Environmental Change: Strategies for Radon Control

Changes to policy, systems, and the environment (PSE) are often considered the most impactful for improving public health as they tend to affect the greatest number of people rather than simply focusing on changing individual behaviors one person at a time. These strategies include adopting new laws, changing or improving organizational systems, and shaping physical landscapes.

While educating and supporting individual homeowners of the importance of radon testing and mitigation is important work, applying PSE change strategies can help broaden the impact for radon control and cancer prevention.

As discussed in this brief, Wisconsin currently lacks most commonly utilized PSE systems to support radon control. **Table 1** summarizes how our neighboring states have adopted state-level PSE strategies to support their residents' health. This table is not an exhaustive list of radon policy strategies, and does not include those implemented at the local level.

If you're interested in learning more about the rules and statutes below, please reach out to the corresponding state's radon program.

Illinois
Indiana
Iowa
Michigan
Minnesota
Ohio

Table 1 - A comparison of state-level radon policy strategies used by neighboring states.

	Required state license for radon professionals	Radon-specific disclosure and warning at real estate point of sale	Radon resistant new construction required in new build homes statewide	Radon testing required in public schools	Radon testing required in child care facilities
Wisconsin	✗	✗	✗	✗	✓ DCF Rule 250.06
Illinois	✓ 420 ILCS 44	✓ 420 ILCS 46	✓ 420 ILCS 52/15	✗	✓ 225 ILCS 10/5.8
Indiana	✓ 410 IAC 5.1-1-2	✗	✗	✗	✗
Iowa	✓ 641 IAC Chapter 43 and 44	✗	✗	✓ Iowa Code 280 Uniform School Requirements, 280.32	✓ IAC Chapter 441-109.11(8)
Michigan	✗	✗	✗	✗	✓ Mich. Admin. Code R 400.1934
Minnesota	✓ Minnesota 144.4961	✓ Minnesota 144.496	✓ Minnesota 326B.106 Subd. 6	✗	✗
Ohio	✓ Ohio Revised Code Chapter 3723	✗	✗	✗	✗

Addressing Radon through Community Collaborations

Wisconsin's Tribal communities bear a disproportionate burden of the new lung cancer cases diagnosed in Wisconsin, experiencing a nearly two times higher rate compared to other groups. The causes are complex, but elevated indoor radon levels may play a role.

To improve lung cancer outcomes for their community, the **Bad River Health & Wellness Center** established a network of community collaborations to educate both Tribal members and health and wellness staff on the risks of radon exposure, provide radon test kits, and support the cost of mitigation when needed. Leveraging partnerships across state, academic, and Tribal departments has equipped the Bad River community with the tools and resources needed to support lung cancer prevention through radon action.

Collaboration between DHS Radon Program, UW-Madison Carbone Cancer Center, and the Bad River Health & Wellness Center and Bad River Natural Resources Department made this project possible.

Conclusion

Radon is an odorless gas that naturally occurs in the soil of every county in Wisconsin. Prolonged exposure to radon gas is a leading cause of lung cancer, especially for people who have never smoked. Radon can be easily measured in a home, residential, or commercial building to determine indoor radon levels. Once measured, results above 4.0 pCi/L should be mitigated with a nationally certified mitigation contractor. Combining radon testing and mitigation strategies can reduce the risk of prolonged exposure to Wisconsin residents and reduce the risk of developing lung cancer. Additional radon policy, system, and environmental strategies, modeled after our neighboring states, can further protect Wisconsin residents from prolonged radon exposure and reduce the risk for lung cancer for everyone.

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Learn More and Take Action:

- Explore the Wisconsin DHS radon resource page
- Check out the Wisconsin Cancer Collaborative's Lung Cancer Infographic (also in Spanish)
- Learn more about lung cancer from the Wisconsin Cancer Collaborative's lung cancer in Wisconsin report
- Search for a certified radon contractor in Wisconsin
- Find out where your regional Radon Information Center (RIC) is located
- Better understand the relationship between radon and lung cancer with this video by the American Lung Association, also in Spanish
- Learn more about lung cancer screening
- Review A Radon Guide for Tenants for information relevant to renters' rights
- Share the EPA radon infographic on social media
- Find your county's cancer profile from the Wisconsin Cancer Collaborative
- See how your work fits into the Wisconsin Cancer Plan 2020–2030

Please contact us to learn how to promote cancer prevention through radon testing and mitigation in *your* community.

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Thank you to all who promote radon testing and mitigation to help prevent lung cancer in Wisconsin.