

RADON AWARENESS

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Radiation Protection Section

NC Division of Health Service Regulation

NC Department of Health and Human Services



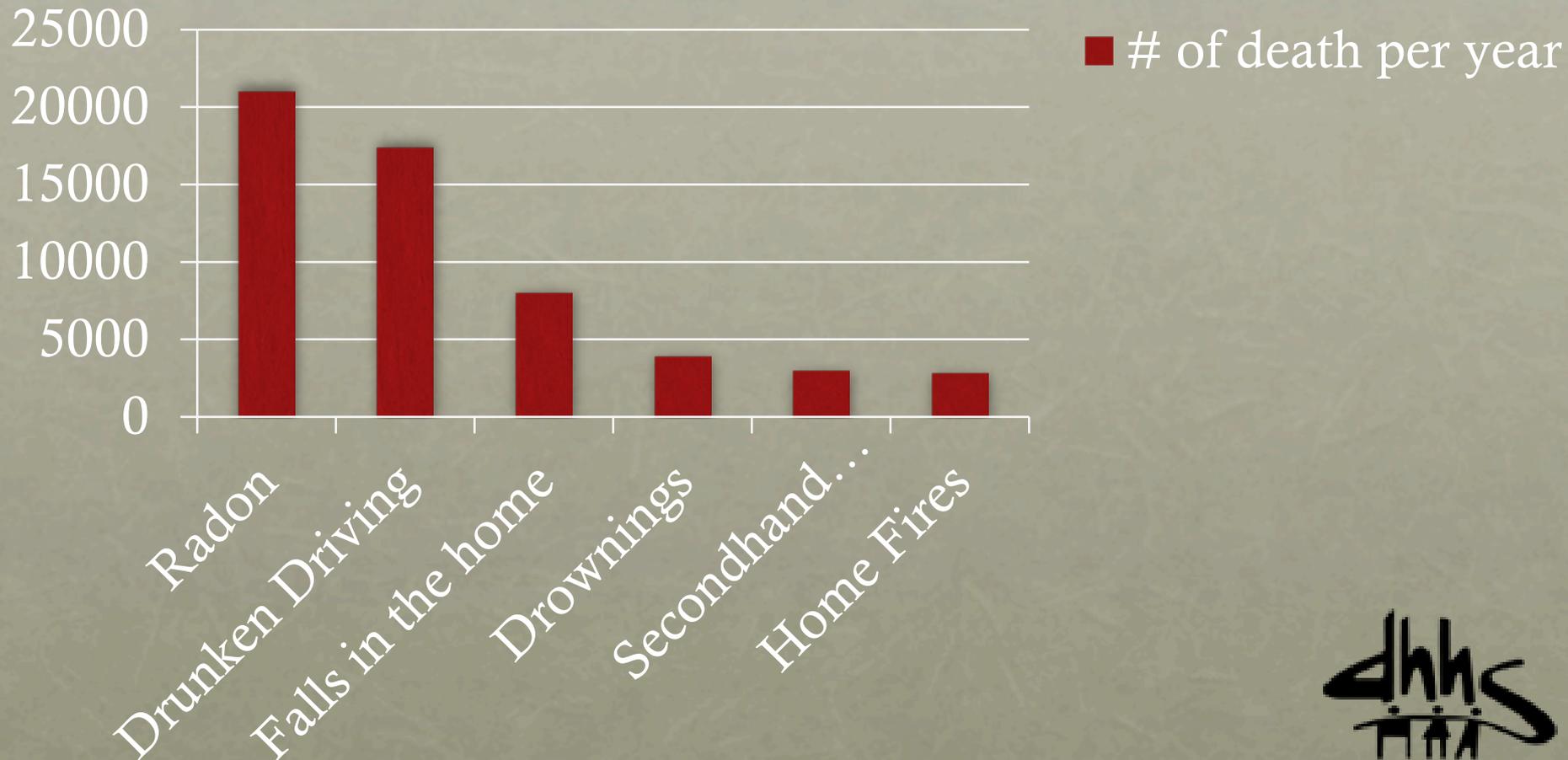
GOALS FOR TODAY

- Communicate how radon gas is causing lung cancer
- Brief on how to test and methods for reducing radon exposure
- Explain methods being used to raise awareness of radon-induced lung cancer
- Sign you up for the Radon Awareness Team
- Email me your contact information so that I may keep you informed



EST. 21,000 PEOPLE

of death per year



CANCER MORTALITY



The following graphic compares EPA estimates of the annual radon-related lung cancer deaths to other selected cancers.

RADON CAUSES LUNG CANCER

- Three variables influence the risk of radon-induced lung cancer
 - The level of radon the person is exposed to
 - The length of time the person is exposed to that level
 - Whether the person is a Never Smoker or an Ever Smoker



RISK OF LUNG CANCER

| Radon Level | If 1,000 people who <u>smoked</u> were exposed to this level over a lifetime*... | If 1,000 people who <u>never</u> smoked were exposed to this level over a lifetime*... | What to do |
|-------------|--|--|---|
| 20 pCi/L | About 260 people could get lung cancer | About 36 people could get lung cancer | Hire a certified Radon Mitigator |
| 10 pCi/L | About 150 people could get lung cancer | About 18 people could get lung cancer | Hire a certified Radon Mitigator |
| 8 pCi/L | About 120 people could get lung cancer | About 15 people could get lung cancer | Hire a certified Radon Mitigator |
| 4 pCi/L | About 62 people could get lung cancer | About 7 people could get lung cancer | Hire a certified Radon Mitigator |
| 2 pCi/L | About 32 people could get lung cancer | About 4 person could get lung cancer | Monitor and Consider Hiring a certified Radon Mitigator |
| 1.3 pCi/L | About 20 people could get lung cancer | About 2 people could get lung cancer | (Reducing radon levels below 2 pCi/L is difficult.) |
| 0.4 pCi/L | About 3 people could get lung cancer | ***** | (Reducing radon levels below 2 pCi/L is difficult.) |

Note: If you are a former smoker, your risk may be higher.

* Lifetime risk of lung cancer deaths from EPA Assessment of Risks from Radon in Homes (EPA 402-R-03-003).

** Comparison data calculated using the Centers for Disease Control and Prevention's 1999-2001 National Center for Injury Prevention and Control Reports.

RADON STUDIES

- Iowa Radon Lung Cancer Study
<http://www.cheec.uiowa.edu/misc/radon.html>
- A Residential Radon and Risk of Lung Cancer: A Combined Analysis of 7 North American Case-control Studies.
<http://www.epa.gov/radon/fact-sheet-pooling-north-american-residential-radon-studies>
- Fact sheet produced from the study: Radon in Homes and Risk of Lung Cancer: Collaborative Analysis of Individual Data from 13 European Case-control Studies.
<http://www.epa.gov/radon/fact-sheet-pooling-european-residential-radon-studies>

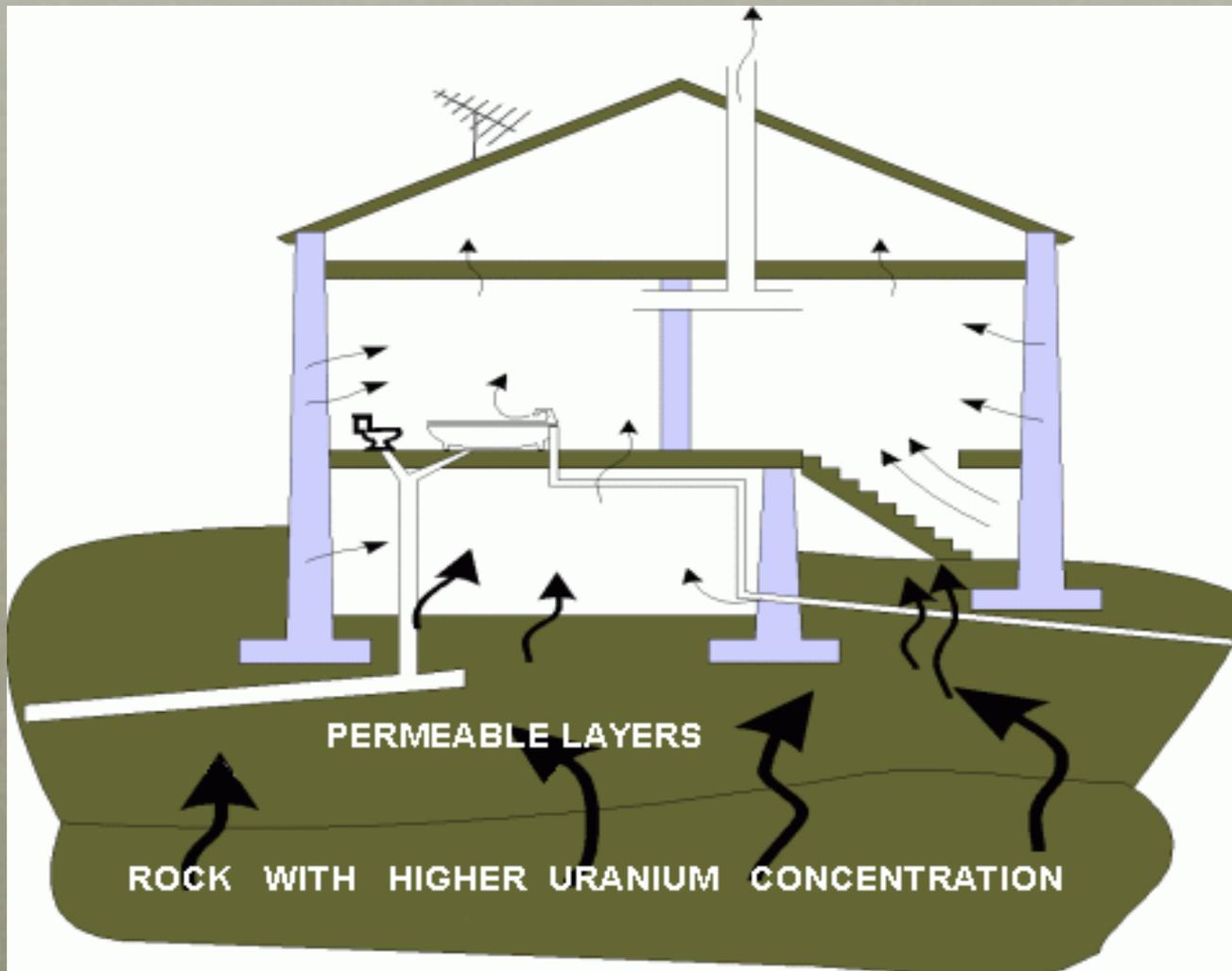


CALLS TO ACTION

- (January 13, 2005) U.S. Surgeon General, Richard H. Carmona, issues a Health Advisory warning Americans about the health risk from exposure to radon in indoor air.
- (2009) The World Health Organization (WHO) says radon causes up to 15% of lung cancers worldwide.

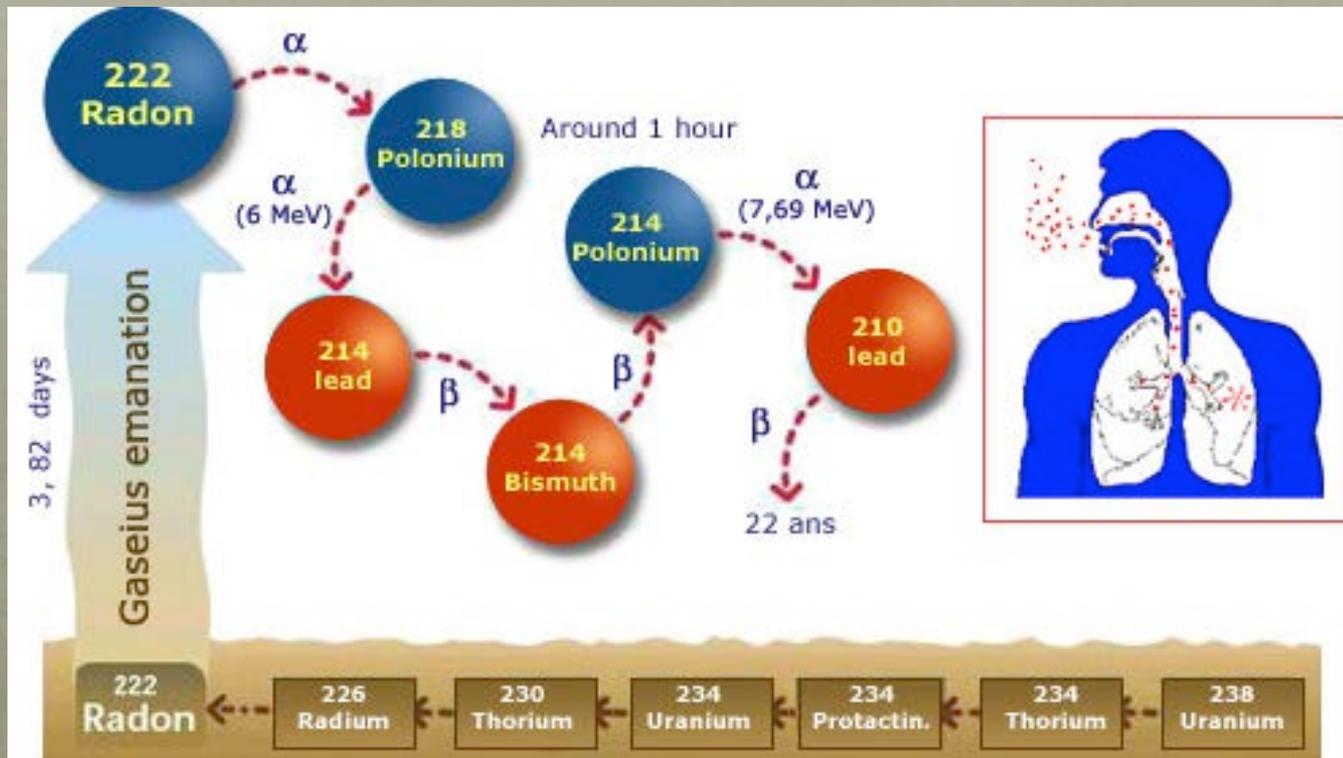


RADON SOURCE



RADON DECAY

Half life of Radon is 3.8 days, decaying into Polonium 218. During the 50 minutes of decay, Polonium 218 decays into Lead 210. Two of the radioelements, polonium 218 and polonium 214, emit alpha rays: the most dangerous form of radiations on direct contact with living matter.



RADON TESTING



- DIY Radon test Kit
- \$6 via www.ncradon.org
- 15,000 Jan 2016



- Certified Radon Professional – CRM
- List of pros on website
- \$100 - \$150



LOWERING RADON LEVELS



AUDIENCES FOR ↑ AWARENESS



AUDIENCES FOR

↑ AWARENESS



2015-2016 ACTIVITIES

- NC Comprehensive Cancer Control Program prevention subcommittee chooses radon as one of the top priorities
- Duke University's Deborah (hutch) Allen has chosen radon as a topic to engage in
- NC Radon Program & NC Cancer Prevention and Control Branch partner to expand radon educational efforts
- article in the Tarheel Newsletter (you have seen)
- Webinar for all local and state agency partners of the NC Cancer Prevention and Control Branch
- all 100 county health department directors agree to participate in the distribution of radon test kits during January 2016

2015 – 2016 ACTIVITIES

- many of the 100 county health directors have had their local governments proclaim January as Radon Action Month
- article in the Triangle Chapter Oncology Nursing Society newsletter (already printed)
- presenting for the Chatham County Health Department community meeting (January 2016)
- presenting for the NC County Health Directors Conference (January 2016)

2015 – 2016 ACTIVITIES

- presenting to community group of seniors in Roxboro, NC (February 17)
- vendor table at the Duke University's Women's Health Initiative (April 2)
- Presenting to Cary NC Keller Williams REALTORS
- presenting with Deborah Allen and Jane Worrell of Duke University at the NC Nurses Association convention (September 28-30)
- presenting to the Triangle Oncology Nurses Society along with Dr. Garst(October 20)

2015 - 2016 ACTIVITIES

- State and Local Health Advocates
 - Distribution of radon test kits by Lung Cancer Initiative of NC
 - Vendor at Oncology Physician CE program hosted by Lung Cancer Initiative of NC in Asheville, NC
 - Keynote presentation to Lung Cancer Initiative of NC event in Raleigh



GOALS FOR ENGAGEMENT

- Local Health Officials
 - Webinars (2) conducted in September 2015
 - 100% participation in National Radon Action Month each January
 - Develop speaker bureau composed of local health officials
 - Develop educational programs, partnering with local builder associations & real estate brokers
 - Posting of educational posters and information in exam rooms
 - ✓ Clinics, Pediatricians, OB/GYN, Family Practice



GOALS FOR ENGAGEMENT

- AHECS
 - CE program held at MAHEC in Spring 2015
 - A CE course is available online via the Southern Illinois University Medical School. NC Radon is promoting this course to NC Medical Providers for CEs.
 - Promote CE Program to Pediatricians, Family Practice, OB/GYN, and nurse practitioners
 - Develop CE programs at all NC AHECs



GOALS FOR ENGAGEMENT

- Local Home Builder Associations
 - Develop 1.5 to 4 hour training program for builders on the basics of radon mitigation system installations and how to test for radon
 - Develop speakers bureau of builders willing to present on their efforts to institutionalize RRNC



AUDIENCE EFFORTS

- Real Estate Agents
 - NC Radon Program purchased the mailing list of all NC real estate brokers
 - An email newsletter was sent in November 2015 to over 1,500 western real estate brokers
 - Requesting authority to spend grant funds to email all 35,000+ real estate brokers in North Carolina
 - Presentation scheduled for 250+ brokers with Keller Williams in Cary, NC on December 14, 2015
 - Presentation scheduled for EXIT Realty real estate firm in Asheville, NC on December 1, 2015
 - Vendor submission to NC REALTOR Association Conference in September 2016



GOALS FOR ENGAGEMENT

Real Estate Brokers

- Develop 1.5 to 4 hour training program for real estate brokers on the basics of radon mitigation system installations and how to test for radon

WHAT ELSE CAN YOU DO?

- Write articles (newsletters, emails, journals, blogs, social media, twitter, webpages)
- Train the trainer (we need speakers from all different disciplines)
- Present to a group (general public, peers, associations, civic organizations, media, webinars)
- Promote testing & mitigation of all buildings (home bound)
- Design infographics, posters to be displayed everywhere
- Advise of conferences, events for presentations, vrending



HOW CAN WE SUPPORT YOU?

- Printed materials
- Reduced cost radon test kits (\$6) via website
- Videos on how to test your home (English, Spanish, Somalia)
- Presentation materials (PowerPoints) for general public
- Video lecture by William Fields PhD for medical audience
- Website (online map, videos, technical resources, guidance for general public) www.ncradon.org
- NC Radon Program Staff
- Comprehensive Cancer Control Plan
- Vendor display



ONE MORE THING

Money

- Funding by NCHFA
- Loans by Self Help Credit Union



WHAT ARE YOUR IDEAS?



HOW WILL YOU ASSIST?

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WE NEED YOUR INVOLVEMENT!!

