Introduction

- Radon is a naturally occurring, odorless, colorless, tasteless, and radioactive gas; product of decomposing Uranium (1).
- Second leading cause of lung cancer in USA (4).
- US Environmental Protection Agency radon level guideline: 4 pCi/L in homes (5).
- Radon found in 5-10% of Wisconsin homes above 4 pCi/L (1).
- 24-41% of homes in Eau Claire County, WI test above 4 pCi/L (Fig. 1) (6).
- Eau Claire City-County Health Department (ECCCHD) funded in 2014 to promote radon awareness in Eau Claire County through an education campaign.
- ECCCHD partnered with University of Wisconsin – Eau Claire (UWEC) Environmental Public Health faculty and students to assess the education campaign’s impact on community awareness of radon.

Objectives

- Explore effectiveness of the ECCCHD radon education campaign by assessing knowledge level change of Eau Claire County residents.
- Identify successful radon education outreach methods.
- Identify populations with low radon awareness and knowledge levels to target in future education campaigns.
- "Young" defined as 18-35 yrs and "old" from 36+ yrs.

Methods

- Identical pre- and post-surveys assessing radon awareness among Eau Claire County residents administered January 2015 and May 2015.
- Survey development based on previous study of radon awareness in rural Canada (3).
- ECCCHD education campaign began after pre-survey and ended before post-survey.
- Campaign materials: billboards, social media websites, newspapers, and announcements on local radio.
- Surveys distributed at local college sporting events and elementary schools, and to UWEC faculty, staff, and students online.
- Survey approved by UWEC Institutional Review Board for human subject use in Fall 2014.
- Participants excluded if not Eau Claire County resident.
- Notable survey content: age, home ownership status, level of knowledge about radon, source of knowledge about radon.
- Likert scale of 1-10 used: 1 = no knowledge and 10 = most knowledge.
- "Young" defined as 18-35 yrs and "old" from 36+ yrs.

Study population

- 470/599 survey responses used (non-county residents excluded).

Results

How participants heard about radon before and after the education campaign.

- Percentage of homes in Eau Claire County, WI test above 4 pCi/L (Fig. 1) (6).
- 5% 23% 17% 2% 5% 6% 9% 29%.
- Eau Claire City-County Health Department.
- How participants heard about radon before and after the education campaign.
- TOTAL.
- Young Participants.
- Old Participants.
- Survey 1: 48 133.
- Survey 2: 72 217.
- TOTAL: 181 289.
- 470 599.
- How participants heard about radon before and after the education campaign.
- Education Method.
- Wood of Health.
- Home Pancriations.
- Internet.
- Neewspaper/Comunic.
- Professional recommendations.
-立体.
- TV.
- Never heard of Radon.
- Billboard.
- Young Participant Source of Knowledge.
- Old Participant Source of Knowledge.
- Average reported knowledge level by age group.
- Young Participants.
- Old Participants.
- P-value (95% confidence).
- Survey One.
- Survey Two.

Discussion

- Although no significant difference was apparent between overall reported knowledge before and after the campaign, Figure 2 illustrates some ECCCHD education materials did appear to reach the target audience (ex. 6% increase in outreach by newspaper/magazine).
- Eau Claire County residents appear to learn about radon most often through word of mouth and by home purchase (Fig. 2).
- The internet may also be a useful tool for targeting younger adults, and newspaper/magazines for older adults (Figs. 3 and 4).
- Older vs. younger adults?
- Younger participants reported having significantly less knowledge about radon than older participants (Table 2).
- 24-41% of homes in Eau Claire County, WI test above 4 pCi/L (Fig. 1).
- Radon testing is mandatory for most home sales in Wisconsin.

Acknowledgments

- The University of Wisconsin – Eau Claire athletic department and student affairs office.
- Survey Participants.
- Eau Claire County, WI

References

- 4) US Environmental Protection Agency radon level guideline: 4 pCi/L in homes.
- 7) The Journal of Rural and Community Development.

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