

2017 Model Practices

Applicant Information

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Model Practice Title

Please provide the name or title of your practice: *

Radon Test Kit Distribution through Direct Care Providers

Practice Categories

Model and Promising Practices are stored in an online searchable database. Applications may align with more than one practice category. Please select all the practice areas that apply.: *

- | | | | | |
|---|---|---|--|---|
| <input type="checkbox"/> Access to Care | <input type="checkbox"/> Advocacy and Policy Making | <input type="checkbox"/> Animal Control | <input type="checkbox"/> Coalitions and Partnerships | <input type="checkbox"/> Communications/Public Relations |
| <input type="checkbox"/> Community Involvement | <input type="checkbox"/> Cultural Competence | <input type="checkbox"/> Emergency Preparedness | <input checked="" type="checkbox"/> Environmental Health | <input type="checkbox"/> Food Safety |
| <input type="checkbox"/> Global Climate Change | <input type="checkbox"/> Health Equity | <input type="checkbox"/> HIV/STI | <input type="checkbox"/> Immunization | <input type="checkbox"/> Infectious Disease |
| <input type="checkbox"/> Informatics | <input type="checkbox"/> Information Technology | <input type="checkbox"/> Injury and Violence Prevention | <input type="checkbox"/> Marketing and Promotion | <input type="checkbox"/> Maternal-Child and Adolescent Health |
| <input type="checkbox"/> Organizational Practices | <input type="checkbox"/> Other Infrastructure and Systems | <input type="checkbox"/> Organizational Practices | <input checked="" type="checkbox"/> Primary Care | <input type="checkbox"/> Quality Improvement |
| <input checked="" type="checkbox"/> Research and Evaluation | <input type="checkbox"/> Tobacco | <input type="checkbox"/> Vector Control | <input type="checkbox"/> Water Quality | <input type="checkbox"/> Workforce |
| <input type="checkbox"/> Conference Theme: Bridging Clinical Medicine and Population Health | | | | |

Other::

Chronic Disease - Lung Cancer

Is this practice evidence based, if so please explain. :

Winnable Battles

To keep pace with emerging public health challenges and to address the leading causes of death and disability, CDC initiated an effort called Winnable Battles to achieve measurable impact quickly. Winnable Battles are public health priorities with large-scale impact on health and known effective strategies to address them. Does this practice address any CDC's seven Winnable Battles? If so, please choose from the following: *

- | | | | | |
|---|--|--|----------------------------------|---|
| <input type="checkbox"/> Food Safety | <input type="checkbox"/> HIV in the U.S. | <input type="checkbox"/> Nutrition, Physical Activity, and Obesity | <input type="checkbox"/> Tobacco | <input type="checkbox"/> Healthcare-associated Infections |
| <input type="checkbox"/> Motor Vehicle Injuries | <input type="checkbox"/> Teen Pregnancy | <input checked="" type="checkbox"/> None | | |

Overview: Provide a brief summary of the practice in this section (750 Word Maximum)

Your summary must address all the questions below:

- Brief description of LHD- location, demographics of population served in your community
- Describe public health issue
- Goals and objectives of the proposed practice
- How was the practice implemented/activities
- Results/Outcomes (list process milestones and intended/actual outcomes and impacts.
 - Were all of the objectives met?
 - What specific factors led to the success of this practice?
- Public Health impact of practice
- Website for your program, or LHD.

750 Word Maximum

Linn County Public Health (LCPH) serves approximately 220,000 residents of Linn County, Iowa and is located in Cedar Rapids, Iowa. LCPH employs about 50 staff, and has a Healthy Homes branch which offers radon education and resources for reducing radon exposure, such as a school based radon testing program. The Linn County Healthy Homes website is <http://www.lchh.org/>. Radon kits are available for purchase from LCPH at a discounted price. Radon is a radioactive gas that is colorless, odorless, and tasteless. Radon occurs naturally outdoors, and can become concentrated in homes. The Surgeon General's National Health Advisory on Radon states that "Indoor radon is the second leading cause of lung cancer in the United States and breathing it over prolonged periods can present a significant health risk to families all over the country." According to the Environmental Protection Agency, radon is the leading cause of lung cancer in nonsmokers and the second leading cause of lung cancer in smokers. It accounts for approximately 20,000 deaths each year. The entire state of Iowa is classified as an EPA Zone 1, meaning average indoor radon levels are over the recommended action level of 4.0 pCi/L. The goal of this project was to increase radon test kit distribution and analysis by engaging medical providers to ask about radon testing and to provide access and/or information on obtaining radon test kits. To accomplish this goal, a pilot study to incorporate a radon screening question at the time of annual well child check and provide radon test kit or prescription with an educational flyer was conducted. LCPH partnered with a health system in Cedar Rapids to pilot a project testing the hypothesis that parents/guardians that own their own home that are given a radon test kit by their physician or nurse will be more likely to test their homes for radon than those given a prescription to get a free radon test kit. To accomplish this, LCPH and staff from a local cancer center conducted two educational presentations at a medical provider office about the health effects of radon, how to test and mitigate for radon, and the role of the medical provider in relation to radon mitigation and a Health Care Flexible Spending Account (HCFSAs). During the educational presentations the pilot project was explained, examples of data collection tools were provided, and questions were answered. Radon kits and or prescriptions were bundled together with appropriate paperwork ready for staff to use, this outreach lead to the success of the program as well as dedicated office administrative staff. Over the course of the study, patients in the clinic of the health system were given either a prescription or a radon test kit, and LCPH monitored the rate at which radon prescriptions were filled at LCPH and the rate at which radon test kits were used by patients. The results of the pilot project showed that only 23.1% of patients that received a prescription filled it, and 15.4% returned the kit to be analyzed. Of those that received a test kit from their medical provider, 33.3% returned the kit to be analyzed. These results indicate that radon kit distribution through medical providers is an effective practice to increase the number of homes tested for radon. At the initial onset of the study, the goal was to have 100 patients in each group. That goal was not met, however 105 total patients participated in the study and a meaningful conclusion was still able to be drawn. The success of this study can be attributed to the partnership between Linn County Public Health and the willingness of the clinic staff to participate in the study.

Responsiveness and Innovation

A Model Practice must be responsive to a particular local public health problem or concern. An innovative practice must be (1) **new to the field of public health (and not just new to your health department)** OR (2) **a creative use of an existing tool or practice**, including but not limited to use of an Advanced Practice Centers (APC) development tool, The Guide to Community Preventive Services, Healthy People 2020 (HP 2020), Mobilizing for Action through Planning and Partnerships (MAPP), Protocol for Assessing Community Excellence in Environmental Health (PACE EH). Examples of an inventive use of an existing tool or practice are: tailoring to meet the needs of a specific population, adapting from a different discipline, or improving the content.

- Statement of the problem/public health issue
- What target population is affected by problem (please include relevant demographics)
 - What is the target population size?
 - What percentage did you reach?
- What has been done in the past to address the problem?
- Why is the current/proposed practice better?
- Is current practice innovative? How so/explain?
 - Is it new to the field of public health
OR
 - Is it a creative use of existing tool or practice:
What tool or practice did you use in an original way to create your practice? (e.g., APC development tool, The Guide to Community Preventive Services, HP 2020, MAPP, PACE EH, a tool from NACCHO's Toolbox etc.)
- Is the current practice evidence-based? If yes, provide references (Examples of evidence-based guidelines include the Guide to Community Preventive Services, MMWR Recommendations and Reports, National Guideline Clearinghouses, and the USPSTF Recommendations.)

2000 Word Maximum

Radon is a radioactive gas that is colorless, odorless, and tasteless. Radon occurs naturally outdoors, and can become concentrated in homes. The Surgeon General's National Health Advisory on Radon states that "Indoor radon is the second leading cause of lung cancer in the United States and breathing it over prolonged periods can present a significant health risk to families all over the country." According to the Environmental Protection Agency, radon is the leading cause of lung cancer in nonsmokers and the second leading cause of lung cancer in smokers. Radon exposure accounts for approximately 20,000 deaths each year. The entire state of Iowa is classified as an EPA Zone 1, meaning average indoor radon levels are over the recommended action level of 4.0 pCi/L. Test results from radon kits sold at LCPH indicate about 1 in 3 have a result at or above the action level for radon. During the winter months, about 1 in 2 tests analyzed are above the action level. In Linn County, there are over 90,000 housing units with a population of approximately 220,000 people. About 73% of occupied housing units are owner-occupied. In the last 21 years, only up to 10% of the housing units have ever been tested for radon. During this pilot project, 105 radon kits or prescriptions for free kits were distributed to homeowners that had not tested their home for radon in the past two years. Of those, 28 kits were returned for analysis. While a very small percentage of the total target population was reached, the purpose of this project was to conduct a pilot study to determine which method would be more effective in getting homeowners to test their home for radon, not to reach the entire target population to encourage testing. There is a limited amount of information in the literature and within evidence-based repositories which outlines strategies that have been used to encourage the general public to test their home for radon. It is recommended that a home be tested for radon every two years, however effective ways to encourage testing to occur has not been studied. At the same time this study was occurring in Linn County within the medical clinics, a similar project occurred in another geographic area within Iowa. However, the other project within Iowa was not testing the effectiveness of distributing radon test kits in the medical setting compared to acquiring the kit offsite. The main objective of the other study was to determine what percentage of test kits would be returned following education about radon and providing a test kit. This project is innovative, as it tests the efficacy of providing test kits to homeowners in a medical setting verses providing instructions for going to get a kit offsite. Homeowners were targeted due to specific disclosure language in Iowa Code 136B, regarding Radon Testing. It was also assumed homeowners with a Health Care Savings or Flexible Spending Account are more likely to mitigate the radon level using this resource versus investor owned housing and potential negative impact to landlord/tenant relations. Currently radon test kits are not widely available in medical settings, however the results of this study implicate the practice is effective in getting homeowners to test their homes for radon. This practice is more effective at getting homeowners to test their homes for radon as it removes barriers such as making an additional trip to pick up a test kit, and it builds upon the existing positive relationship that already exists between the provider and the patient.

LHD and Community Collaboration

The LHD should have a role in the practice's development and/or implementation. Additionally, the practice should demonstrate broad-based involvement and participation of community partners (e.g., government, local residents, business, healthcare, and academia). If the practice is internal to the LHD, it should demonstrate cooperation and participation within the agency (i.e., other LHD staff) and other outside entities, if relevant. An effective implementation strategy includes outlined, actionable steps that are taken to complete the goals and objectives and put the practice into action within the community.

- Goal(s) and objectives of practice
- What did you do to achieve the goals and objectives?
 - Steps taken to implement the program
- Any criteria for who was selected to receive the practice (if applicable)?
- What was the timeframe for the practice
- Were other stakeholders involved? What was their role in the planning and implementation process?
 - What does the LHD do to foster collaboration with community stakeholders? Describe the relationship(s) and how it furthers the practice goal(s)
- Any start up or in-kind costs and funding services associated with this practice? Please provide actual data, if possible. Otherwise, provide an estimate of start-up costs/ budget breakdown.

5000 words maximum

The goal of this project was to increase radon test kit distribution and analysis by engaging medical providers to ask about radon testing and to provide access and/or information on obtaining radon test kits. To accomplish this goal, a pilot study to incorporate a radon screening question at the time of annual well child check and provide radon test kit or prescription with an educational flyer was conducted. LCPH partnered with a health system in Cedar Rapids to pilot a project testing the hypothesis that parents/guardians that own their own home that are given a radon test kit by their physician or nurse will be more likely to test their homes for radon than those given a prescription to get a free radon test kit. Homeowners that have not tested their home in the past two years were chosen as the target population because of disclosure laws in Iowa and the recommendation that homes be tested every two years. During the timeframe of September 2014 through October 2015 the participating clinic was actively distributing radon test kits and prescriptions. While the project continued past October 2015, significant numbers of additional participants recruited into the study past this date greatly decreased. The health system oncology partners suggested the study be moved to a pediatric clinic and the rest of the study be concluded prior to May of 2016. We attempted to conduct the study at a pediatric clinic and performed the two educational presentations similar to the first clinic. However, the pediatric clinic did not distribute prescriptions or radon test kits. This study was conducted in partnership with the health system's cancer center. The study numbers were included in the clinical trial research accrual numbers tracked by the cancer center. An oncology nurse and director of a breast cancer awareness campaign assisted with the educational presentations and were instrumental in gaining project staff buy in from physicians, nursing staff and office manager. LCPH and the participating health system have collaborated on many projects together, ranging from diabetes prevention to community health needs assessments. This project was initiated due to the positive relationship that already existed between LCPH and the health system. The local health care system purchased 200 short-term activated charcoal test kits that are approved use by the Environmental Protection Agency. At the time of the study the test kits were purchased for \$5.00 per kit for a total amount of \$1000.00. The educational flyer provided with each test kit or prescription was printed through the local health care system marketing department and provided in-kind. Project documents including the data collection tools were printed by the LHD and cost an estimated \$300.00. In a non-study implementation scenario, the health care system providing the kits would have the upfront costs of purchasing the kits, then resell to clients to create a sustainable revenue source to purchase more kits.

Evaluation

Evaluation assesses the value of the practice and the potential worth it has to other LHDs and the populations they serve. It is also an effective means to assess the credibility of the practice. Evaluation helps public health practice maintain standards and improve practice. Two types of evaluation are **process** and **outcome**. Process evaluation assesses the effectiveness of the steps taken to achieve the desired practice outcomes. Outcome evaluation summarizes the results of the practice efforts. Results may be long-term, such as an improvement in health status, or short-term, such as an improvement in knowledge/awareness, a policy change, an increase in numbers reached, etc. Results may be quantitative (empirical data such as percentages or numerical counts) and/or qualitative (e.g., focus group results, in-depth interviews, or anecdotal evidence).

- What did you find out? To what extent were your objectives achieved? Please re-state your objectives.
- Did you evaluate your practice?
 - List any primary data sources, who collected the data, and how (if applicable)
 - List any secondary data sources used (if applicable)
 - List performance measures used. Include process and outcome measures as appropriate.
 - Describe how results were analyzed
 - Were any modifications made to the practice as a result of the data findings?

2000 Words Maximum

Please enter the evaluation results of your practice (2000 Words Maximum): *

The objective of this study was to determine whether distributing radon test kits by direct medical providers is more effective than providing a prescription for a test kit to patients to pick up at a local health department. Data was collected in a primary care setting, with the target population being parents/guardians of children with well child visits. Parents/guardians self reported whether they owned their home and whether they had tested the home for radon in the previous two years. If eligible, parents were randomized to receive a radon test kit or a prescription for a test kit. LCPH collected information on whether test kits were analyzed. LCPH staff visited the primary care clinic to collect forms used for determining eligibility and entered data into a Google Form document. These forms were used to monitor progress toward the 100 kit and 100 prescription goal. Overall, 252 parents or guardians were provided radon education and interviewed by clinic staff to determine study eligibility. Eligible participants were homeowners who have not tested for radon within the previous 2 years. Participants were then randomly assigned to either Group A (control) or Group B (Test). Of the 252 individuals 118 were eligible to participate in the study; however, 13 declined to participate, reducing the number of participants to 105 (Group A: 39; Group B: 66). Of the 39 assigned to Group A, 9 (23.1%) redeemed the "radon test kit prescription" at Linn County Public Health; however, only 6 returned the test kit to be analyzed resulting in a success rate of 15.4%. Group B consisted of 66 individuals who were provided a test-kit onsite when attending their child's well child exam. Twenty-two of the 66 participants returned the test kit to Linn County Public Health for analysis, resulting in a success rate for the experiment group of 33.3%. Success of this active methodology was more than twice as effective as simply providing participants with a prescription to pick up the test kit from Linn County Public Health on their own. To determine whether the difference between Group A and Group B is significant a Chi-Square test was conducted. Based on the analysis, parents/guardians are more likely to test their homes for radon than those who are provided a prescription to pick-up a radon test kit from Linn County Public Health, $\chi^2 (1, N=105) = 4.04, p = 0.04$. As such the null hypothesis that parents/guardians who receive a radon test kit at their child's well child visit, are not more likely to test their homes for radon than those who receive a prescription to get a radon test kit at Linn County Public Health can be rejected. Potential barriers and limitations of this study include: Providers' motivation to engage participants and the frequency at which patients were engaged. Characteristics of the parents being interviewed (Age, Sex, number of children, single vs two parent household, demographic characteristics; smoking characteristics of household members) Time of day or week, as patients were randomized to the prescription or test kit group based on whether they were visiting on an even or odd numbered day of the month. Expiration date on prescription. Initially an expiration date was placed on the prescription to encourage participants to visit LCPH in a timely manner to pick up their radon test kit. This expiration date could have potentially discouraged some people from picking up their kit if they did not do it by the expiration date on the prescription. This study cannot be generalized to all homeowners, which is the target population, since the study was only performed among parents/guardians of children visiting their medical provider for a well child visit. A family potentially could be asked multiple times to test their home for radon if they had more than one child that was visiting the clinic during the study period.

Sustainability

Sustainability is determined by the availability of adequate resources. In addition, the practice should be designed so that the stakeholders are invested in its maintenance and to ensure it is sustained after initial development (*NACCHO acknowledges that fiscal challenges may limit the feasibility of a practice's continuation.*)

- Lessons learned in relation to practice
- Lessons learned in relation to partner collaboration (if applicable)
- Did you do a cost/benefit analysis? If so, describe.
- Is there sufficient stakeholder commitment to sustain the practice?
 - Describe sustainability plans

1500 Words Maximum

Please enter the sustainability of your practice (2000 Words Maximum): *

The staff at the medical clinic use electronic medical records, while the screening questions were on paper. If the questions regarding radon testing are incorporated into the electronic medical record, it would be easier for providers to remember to ask questions regarding radon testing. In addition, the electronic medical record may eliminate the family being asked multiple times or test more than what is recommended by the EPA. Furthermore, educational material concerning radon as well as a template of Letter of Medical Necessity for the treating physician requiring radon mitigation due to indoor radon levels ≥ 4.0 pCi/L may be included within the electronic medical record. Radon may be viewed as an "aggravated" health condition, under IRS rules, some health care services and products are eligible for reimbursement from your Health Savings or Health Care Flexible Spending Account when your doctor or other licensed health care provider certifies that they are medically necessary. Homeowners are able to get a note from the primary care physician after a high test level has been confirmed. To support the inclusion of radon screening questions within the health system's electronic medical records, education should be provided to direct care providers or they should have access to key points or fact sheets about radon so appropriate information is relayed to the client.

Additional Information

How did you hear about the Model Practices Program?: *

☐ I am a previous Model Practices applicant

☐ At a Conference

☒ NACCHO Website

☐ Public Health Dispatch

☒ Colleague in my LHD

☐ Model Practices brochure

☐ NACCHO Exhibit Booth

☒ NACCHO Connect

☐ Colleague from another public health agency

☒ E-Mail from NACCHO

☐ NACCHO Exchange