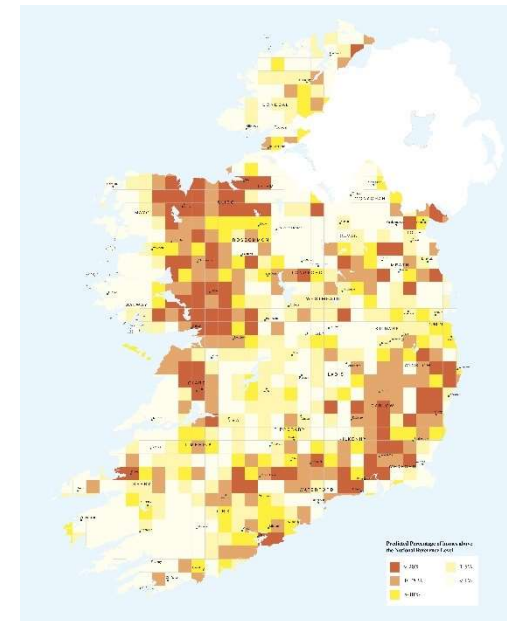


Communicating Radon Risk in Ireland

IAEA Webinar
22nd October 2018
Stephanie Long
EPA, Ireland



*Radon Risk Map
of Ireland*

Almost **500,000** people live in homes above the reference level of 200 Bq/m³



300

people contract radon related lung cancer every year

2010 - 2016

12 risk communication campaigns

- [Wicklow](#) November 2016
- [Clare](#) November 2015
- [Mayo](#) November 2014
- [Kilkenny](#) March 2014
- [Louth](#) April 2013
- [Wexford](#) November 2012
- [Kerry](#) March 2012
- [Galway](#) October 2011
- [South Tipperary](#) May 2011
- [Waterford](#) October 2010
- [Carlow](#) April 2010
- [Sligo](#) March 2010



1 in 6 Mayo people lives with a killer.

One in six Mayo homes has dangerous levels of Radon. It's a naturally occurring gas, but it can cause lung cancer. Radon led to 195 deaths in Ireland last year. It's invisible and it has no smell or taste, so you won't know its there. But a simple inexpensive test can tell you if your home is safe. Nobody should live with the risk of Radon.

Order your test now. Freefone 1800 300 600. Or go to www.epa.ie.

EPA Public Meeting: Twin Tree's Hotel, Ballina, Co. Mayo. Thursday 20th November 14.30 pm and 19.30 pm



Cáit Keane
@sencaitkeane Following

Thrilled to host EPA briefing on radon in Oireachtas yesterday. Next week is Radon Awareness in Clare @EPARadiation



RETWEETS 4 LIKE 1

5:04 PM - 5 Nov 2015

newstalk.
106-108 fm



Take the RADON test

The Facts

- One in six homes tested in Mayo have high radon levels
- Radon causes up to 250 lung cancer cases each year in Ireland
- Radon gas affects us all, but the risk is greater for smokers
- You cannot see, smell or taste radon gas
- A simple test can tell you whether your home is safe

Visit www.epa.ie or Freefone **1800 300 600**

Home has radon dose equal to nine X-rays

Treacy Hogan
Environment Correspondent

A FAMILY home has been discovered to have 13 times the safe level of lung cancer-causing radon gas.

The occupants of the house in Ballymore, Co Sligo, had been receiving a radiation dose equivalent to nine chest X-rays every day, or more than 3,000 a year.

In a statement yesterday the Radiological Protection Institute of Ireland (RPII) said the householders, who had checked

for radon, took immediate action and had a radon sump installed under the home.

The RPII has been running extensive campaigns in Sligo and Carlow, both high radon counties, urging people to test for the gas which is responsible for as many as 200 lung cancer deaths annually.

David Fenlon, senior RPII scientist, said: "The identification of this house is a further reminder that many people throughout the country are living with dangerous levels of radiation in their homes.

"It is unnecessary for people to put themselves and their families at risk from radon.

"Homeowners need to take this matter seriously and measure radon levels in their homes to ensure that they and their families are not at risk from the hazardous gas."

Mr Fenlon said that on the Institute's website www.rpii.ie anyone could search for their own address on an interactive radon map to see if their home or workplace was in a high radon area, and find out how to have a measurement taken.



How effective were our campaigns at communicating risk?

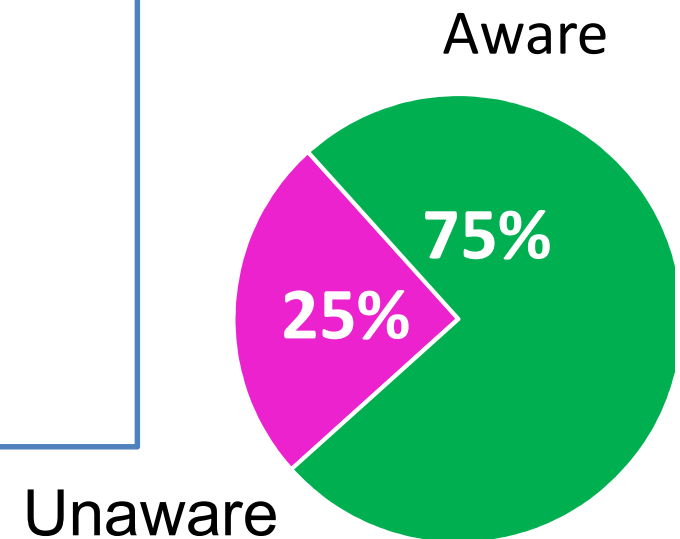
75% aware of radon gas

56% aware of link with **lung cancer**

27% concerned about radon in their home

21% likely to test for radon

58% know to go to **EPA** for information



How effective were our campaigns at motivating behaviour change?

- 5,000 homes tested
- 800 homes identified with high radon levels
- 80 with very high radon levels



High levels of awareness do not lead to action

- Typical response rate of 1% (where a kit costs €50)
- Typical response rate of 22% (where a kit is free)
- Cost is a barrier but there are much more significant barriers
- Where high radon is measured, typically only 1 in 5 homeowners remediate
- Why??



Health psychology review

Report No. 170

epaResearch
Climate • Water • Sustainability
Identifying problems • Informing policy • Developing solutions

Review of Public Information Programmes to Enhance Home Radon Screening Uptake and Home Remediation

Author: David Hevey

250 people die every year in Ireland from radon related lung cancer

IT'S IMPORTANT TO TEST YOUR HOME FOR RADON!

2nd highest cancer risk in Ireland

25 times more likely to die from lung cancer if you live in a house with high radon levels

REFERENCE LEVELS

HOME & SCHOOLS	WORKPLACES
200Bq/m ³	400Bq/m ³

110,000 Irish homes are estimated to have radon levels higher than 200Bq/m³

HOW TO TEST YOUR HOME

- 1** ORDER YOUR RADON TEST KIT
1800 300 600
www.epa.ie/radon
- 2** You will discover the radon level in your home
Have your test kit installed
- 3** Place the radon test kit in the room you want to test

AFTER THREE MONTHS TESTING PERIOD

- 4** Post the radon test kit back
- 5** You will receive a report that tells you your radon level

IF THE TESTS SHOW THAT RADON LEVELS IN YOUR HOME ARE HIGH
we can give you advice about how to easily reduce those levels

If you have any questions call 1800 300 600

RADON IS A NATURALLY OCCURRING RADIOACTIVE GAS

© Environment, Food and Affairs 2012
Department, Communities and Local Government

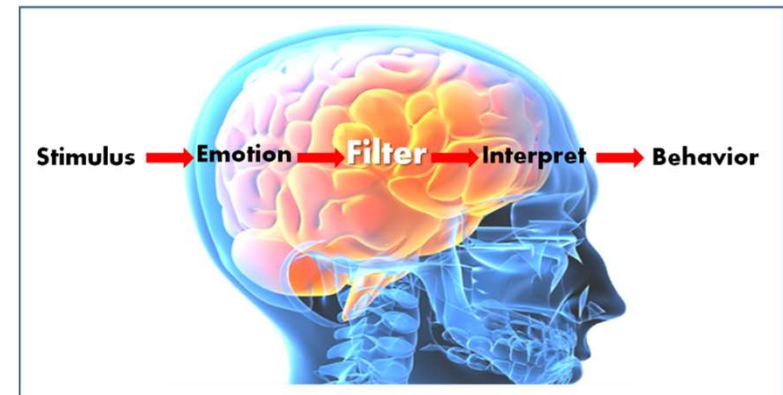
www.epa.ie

We don't act rationally to health threats

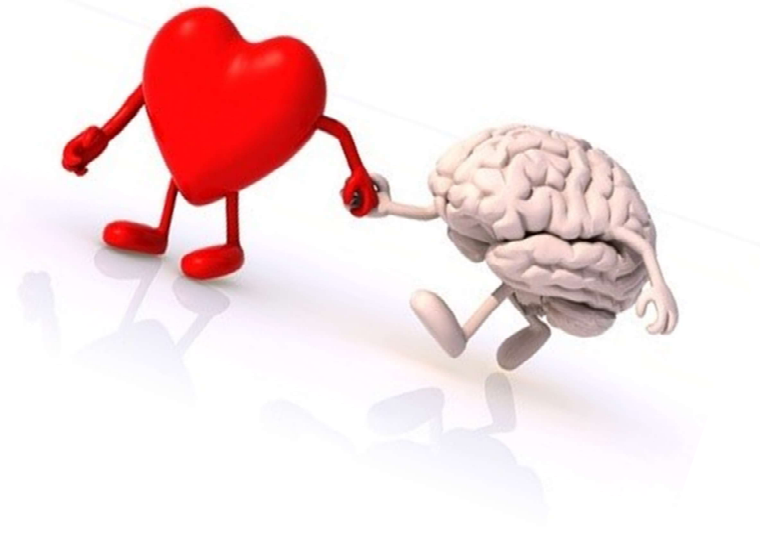
Radon risk communication is based on an assumption that individuals will act rationally in relation to the information

We process information about a health threat using both our minds and our emotions

And once our emotions get involved, we tend to respond **defensively** to information about health threats



Be realistic about how much behavioral change can be achieved through risk communication



Recommendations



Be realistic about how much change can be achieved through risk communication

1. Make testing for radon “normal” and visible
2. Shift responsibility solely from the householder by bringing in more government regulation
3. Regulation needs to be supported by high quality information about risks
4. Information needs to be “stage matched” – messages should match their target audience

1. Making Radon “Normal”



<https://www.youtube.com/playlist?list=PLFesobjWT1FhjQuTBjZFZv6zq4yPwE3B8>

1. Radon Ambassadors Making Radon “Normal”



Elaine
WEEKDAYS FROM 3PM

10 THINGS TO KNOW ABOUT...

Showcasing the best in Irish scientific research – Series 4 coming soon!

1. Online Articles making Radon “Normal”



Radon gas can seriously damage your family's health

Test your home



lowering CO2 emissions, claims lobby group

Increasing wind energy is not the answer to decreasing the country's carbon emissions, according to...

- Ireland to miss 2020 emissions targets and would need carbon tax of €70 per tonne...
- Ireland is worst country in Europe for taking action to tackle climate change



State delays funding for new homes over social housing fears

The Government is refusing to approve State funding for one-in-six housing schemes because it's not clear how many of the homes built will be 'affordable'.

- PTSB claims that trackers restored to all are 'baloney'
- More homeless than ever relying on shelter

relentless rain takes its toll

Farmers fear they are the first Irish victims of climate change as a fodder crisis looms on the horizon because of incessant rain since July and a shortage of consecutive dry days.



We know the dangers but we're still not testing our homes for radon

Ireland has one of the highest average indoor concentrations of radon gas in the world, with some of the highest levels of radon concentrations anywhere in Europe found in homes and workplaces here

Sponsored by 

Irish News



Sinn Fein defends €55 cost of signed Gerry Adams' book



Editor's Choice



Spe
Syr
Ind
fore
O'B



'Country people have much better
unde
with



Com
star
for IR
For t
value



Written by Walsh Dublin [?] · October 25 · €

Buying a new home? Homes in some parts of the country are more likely to have a radon problem than others - this gas can be potentially fatal if left untreated.

Visit www.radon.ie to check our interactive map to see whether it is in a High Radon Area, and to learn more about testing your home.



www.Radon.ie

Radon is an odourless, tasteless gas that causes up to 250 cases of lung cancer...

[HTTP://WWW.RADON.IE](http://www.radon.ie)

Learn More



Written by Walsh Dublin [?] · November 4 · €

Radon is linked to 250 lung cancer cases in Ireland every year and this tasteless, odourless gas could be in your home.

Visit <http://www.radon.ie> to find out more about radon and how to test your home.



Radon gas can seriously damage your family's health

Radon is a cancer-causing gas that can be detrimental to the health of your...

[HTTP://WWW.RADON.IE](http://www.radon.ie)

Learn More

Property & Mortgage

1. The Media Making Radon “Normal”

LOCAL Wicklow Times WE DELIVER!- for 29 years NORTH EDITION
 Delivered to 44,500 homes & businesses

SEASONAL GUIDE page 10 | BRAY LIBRARY REOPENS pages 12&13 | SAVE THE ROCKS page 20

NORTH EDITION DELIVERED TO HOMES & BUSINESSES IN: SHANKILL, ENNISKERRY, BRAY, GREYSTONES, DELGANY, KILCOOLE, NEWCASTLE, KILDADE, ASHFORD, KILPEDDER, NEWTOWNMOUNTKENNEDY, KILMACANOGUE, LARAGH, MONEYSTOWN, ROUNDWOOD.

Tuesday 8th November 2016 5 Eglinton Road, Bray, Co. Wicklow Tel: 01 - 2869111 www.wicklowtimes.net E-mail: wicklowed@localtimes.ie

WICKLOW'S SILENT KILLER

Some 460,000 people at risk from cancer-causing radon gas

Scientists produce new map showing areas at risk from radon gas

© Tue, May 23, 2017, 13:05 | Updated: Tue, May 23, 2017, 18:12

Elaine Edwards



According to Trinity College scientists, one in 10 of the population is at risk from radon

Up to 460,000 people in the State – one in 10 of the population – are at risk from unsafe exposure to indoor radon gas, which may cause lung cancer.

Radon levels in Wicklow home were equal to 56 X-rays a day

Environmental Protection Agency calls for people to test their homes for the gas

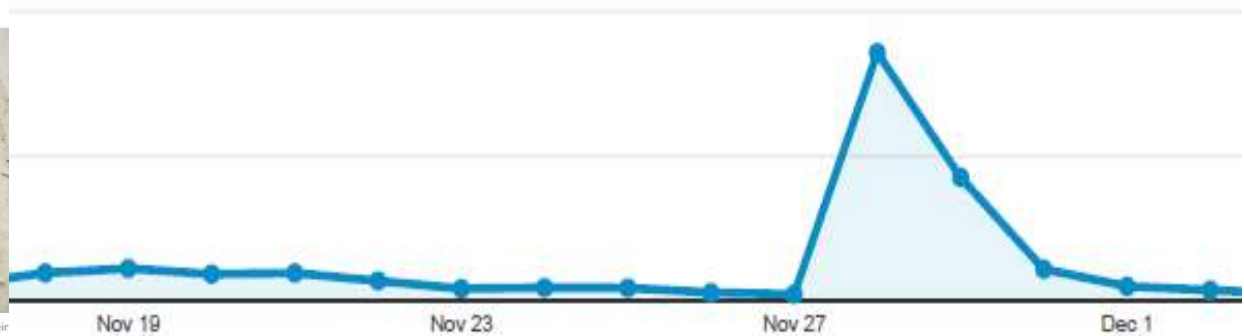
© Mon, Nov 28, 2016, 16:09

Dan Griffin



A radon mitigation system in the basement of a house. The EPA is calling on people in high radon areas to test their homes for the gas. File photograph: iStock

Residents of a house in Co Wicklow were exposed to a radiation dose which was equivalent to 56 chest X-rays a day because of the amount of radon in the area, the Environmental Protection Agency (EPA) has said.



2. More Regulation



Law Society of Ireland



3. Supporting regulation with high quality information about radon risk

www.radon.ie

Free Phone
1800 300 600



3. Supporting regulation with high quality information about radon risk

Radon Day 2017:

- Press release resulting in 7 interviews on local radio
- Advertisements on national radio
- Features on two TV shows
- Twitter @EPARadiation

Radon Day 2018:

- Research students presenting their work in a high radon area with a local man telling the story of the death of his family members from radon (supported by EPA)
- Interviews with radon ambassadors
- Press release
- Advertisements on national radio
- Twitter @EPARadiation



 EPA Radiation @EPARadiation
Oct 28

Radon and Your Health - get the facts here buff.ly/2y1Ym5R
#TakeARadonTest



How do we measure effectiveness?



Lagging indicators:

- Provides information that may not be sufficiently timely to helpfully direct ongoing actions eg health outcomes for long latency diseases

Leading indicators:

- Give a real-time measure of progress towards reducing exposure
- They can then be used as reliable evidence that the long term objective will be achieved

Lagging indicators

No.	Metric	Metric Value(s)	Year measured	Repeat frequency	Proposed year
1	Population weighted national average indoor radon concentration	98 Bq/m ³ (Arithmetic mean)	2017	8 years	2025
2	Geographic weighted national average indoor radon concentration	77 Bq/m ³ (Arithmetic mean) 51 Bq/m ³ (Geometric mean) Mean for homes built Pre 98 vs post 98: 86 Bq/m ³ vs 64 Bq/m ³	2015	8 years	2023
3	Radon awareness levels	75% with 21% likely to test their home	2017	3-5 years	2020

Leading indicators

No.	Metric	Metric Value	Year measured	Repeat frequency	Proposed year	Comment
4	Number of domestic radon tests	1327	Annual average for 2014 -to date	Annual	2018	Source: EPA data
5	Number of radon tests associated with conveyancing	To be established in 2018	N/a	Annual	2018	Method for collecting data to be developed
6	Remediation rate	22%	2015	5 years	2020	Source: EPA data
7	Rate of successful outcome for those who remediate	70% on first attempt	2015	5 years	2020	Source: EPA data
8	Radon remediation training course: No. of courses held and annual attendance	5 courses held (including 1 pilot) 87 attendees	2016	Dependent on scheduling of training course	To be decided	
9	Radon prevention training course: No. of courses held and annual attendance	5 courses held (including 1 pilot) 78 attendees	2017	Annual	To be decided	

Future risk communication work

1. Make testing for radon “normal” and visible
2. More government regulation
3. Regulation supported with high quality information about risks
4. Information needs to be “stage matched” – messages should match their target audience
5. Use of behavioral economics to nudge changes





**THANK
YOU
FOR
LISTENING
ANY QUESTIONS?**