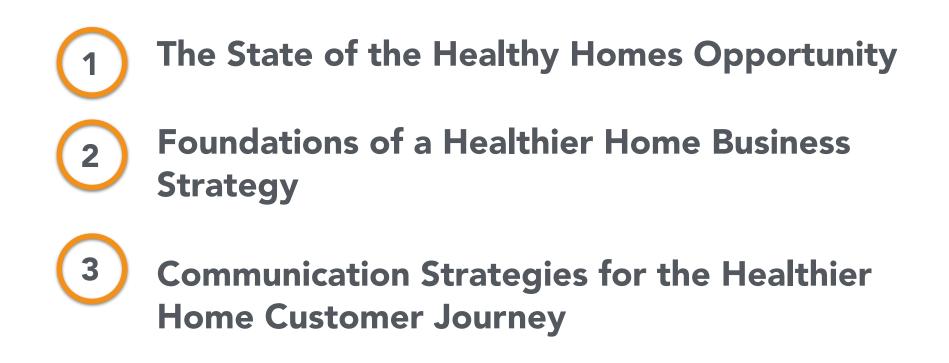


Healthy Homes Business & Marketing Update: The Communications Challenge

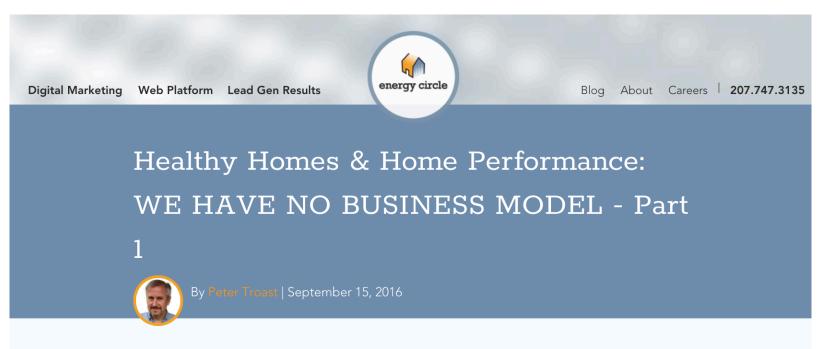
Peter Troast, Founder & CEO Energy Circle Webinar Series April 10, 2019

What We'll Discuss





My Optimism is Growing



The nexus of healthy homes and home performance continues to be at the forefront of our industry's hope for the future. But, for all the cheery prognostication (including my own), serious effort by smart people, real progress on credentialing, and general optimism, we are failing to focus on the key issue: how is the "healthy home" concept a viable business model for the home performance industry?

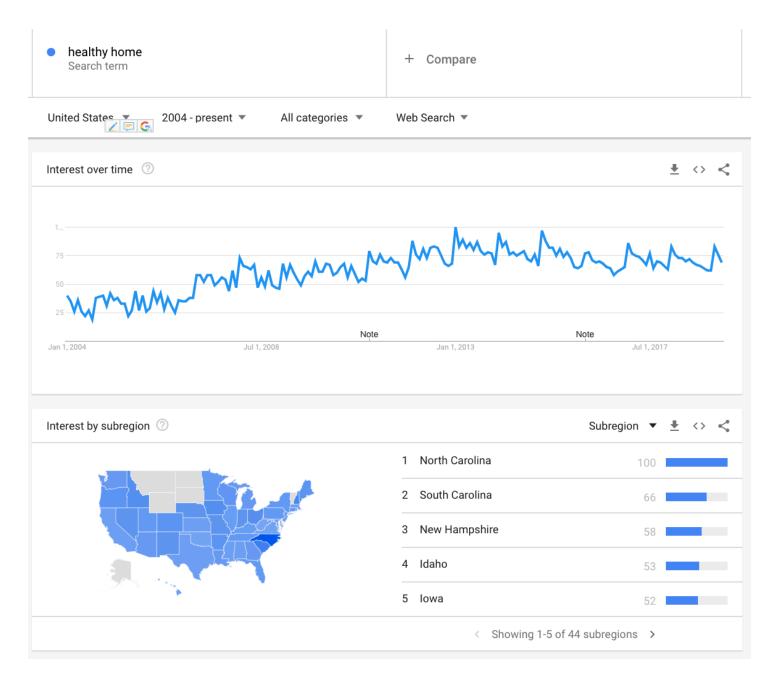
With each passing day, I see signs that we are losing the market. When a magazine as mainstream as Vogue links poor indoor air quality with bad skin, you'd think we could take a victory lap. But the fix, according to that article, is simple: install a shiny Dyson Pure Cool Link -- a sexy fan/filtration device that solves all problems -- for a mere \$499. No home upgrades needed.



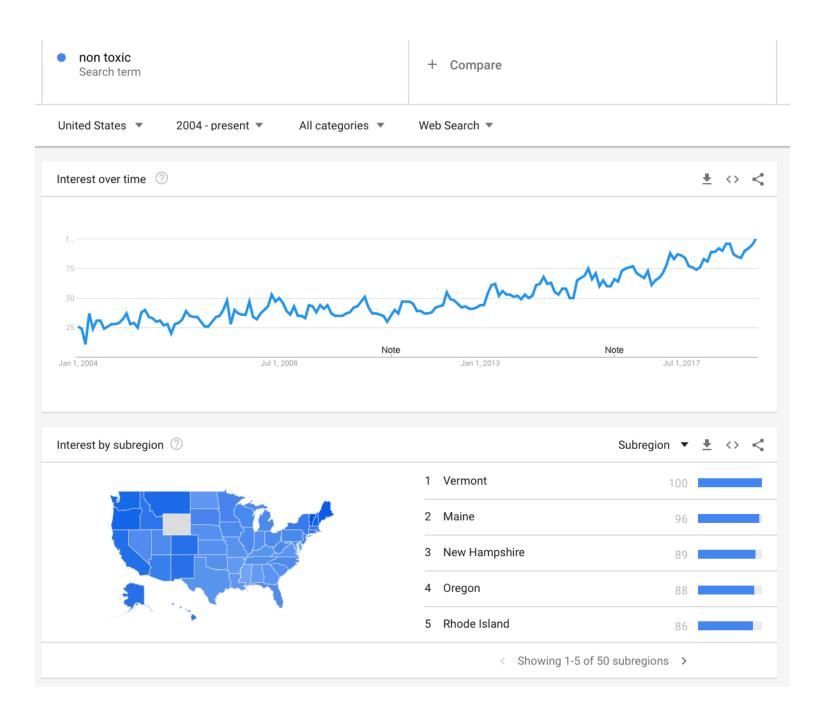


WHAT THE RESEARCH SAYS ABOUT THE HEALTHY HOMES TREND

(super condensed)



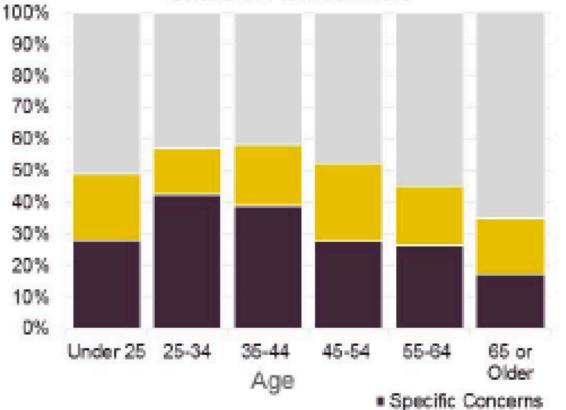
Google Trends, February 12, 2019



Google Trends, February 12, 2019

FIGURE 3: HEALTHY HOUSING CONCERNS ARE HIGHEST IN EARLY-MIDDLE AGES, ESPECIALLY AMONG OWNERS

IN THE PAST FEW YEARS, HOW CONCERNED HAVE YOU BEEN ABOUT YOUR CURRENT HOME NEGATIVELY AFFECTING YOUR OR ANOTHER OCCUPANT'S HEALTH?



Share of Homeowners

Note- Out of a sample of 1,751 homeowners and 718 renters. Source- Farmaworth Broup and Joint Center Healthy Homes Surveys, August 2018.

The Chasm

Health Concerns

Performance of the Building





NOBODY CONNECTS HEALTH ISSUES WITH THEIR HOME ENVIRONMENT



2

EVERYBODY WANTS TO FIRST START WITH A TEST



FOUNDATIONS OF A HEALTHIER HOME BUSINESS & MARKETING STRATEGY

Pathway to Meaningful Business

1 DIAGNOSTIC PROCESS

- Standard Energy Audit + IAQ
- Air Advice or Other?



Pathway to Meaningful Business

1 DIAGNOSTIC PROCESS

- Standard Energy Audit + IAQ
- Air Advice or Other?

2 MEASURES WITH BUSINESS VALUE

- Envelope Control (air leakage)
- Whole House Ventilation
- Crawlspace Encapsulation
- Duct cleaning and sealing
- Moisture Control
- Equipment Replacement





THE HEALTHIER HOME CUSTOMER JOURNEY

Healthier Homes Customer Journey

General Awareness

IS YOUR HOUSE MAKING YOU SICK?

Connecting Health Concerns with the Home Environment

Health & Home Connection

The Fix

WE CAN ANSWER THAT QUESTION

Diagnostic Process Role of the Building

NOT A BANDAID SOLUTION

Likely a home improvement job Long term vs short term fix





General Awareness

Fully Committed Master Brand



The Ultimate Indoor Air Quality System

Breathe Easy Home's Indoor Air Quality System removes allergy and asthma triggers, and other irritants and pollutants, from your home's indoor environment. We make structural improvements that are more effective than store-bought air purifiers, filter upgrades, HEPA vacuums, or bedding wraps. You'll feel better with healthier air.

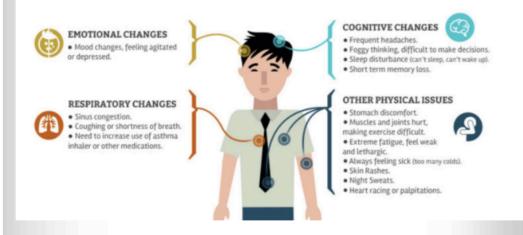


Fear is Good Marketing

ANTER SCORE

Health Symptoms

The symptoms most commonly reported by those affected by a "sick house" are many and varied, depending on the sensitivity of the person and the severity of the issues in the home. These are only a few of the more common symptoms.



Is Your House Making You Sick?

Posted on March 30, 2017 by Dana Sundblad

The symptoms most commonly reported by those affected by a "sick house" are many and varied, depending on the sensitivity of the person and the severity of the issues in the home. Common symptoms usually fall into a few broad categories:

- Respiratory Symptoms congestion, aggravated asthma or allergies, sinus infections
- Cognitive Issues foggy thinking, sleep disturbance, frequent headaches
- Emotional Changes feeling agitated or depressed
- Physical Symptoms stomach discomfort, muscle aches, fatigue, rashes, sore throat





Health & Home Connection

Embrace Healthy Homes Principles

- Minimize indoor emissions.
- Keep it dry.
- Ventilate well.
- Protect against outdoor pollution.

William W Nazaroff, PhD Daniel Tellep Distinguished Professor of Engineering University of California, Berkeley Editor, Indoor Air



Hayward Healthy Homes

- Continuous Fresh Air.
- Properly Seal & Insulate.
- Minimize Toxic Materials.
- Cleanable Surfaces.

Bill Hayward Hayward Healthy Homes Hayward Lumber Company Carmel, CA



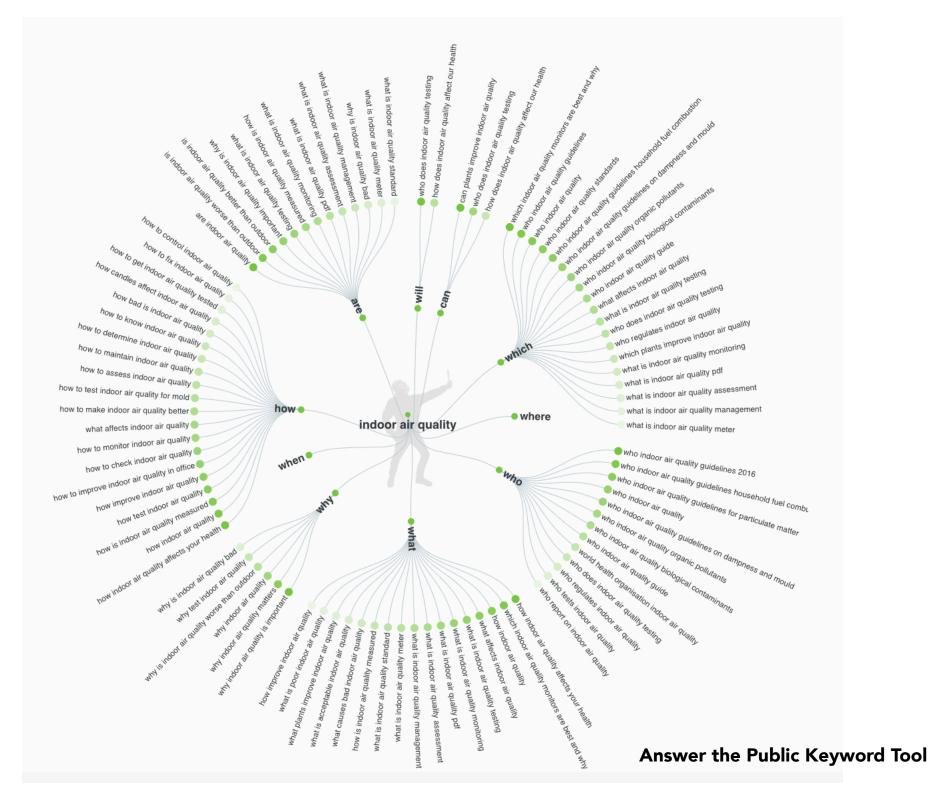
WELL BUILDING STANDARD® FEATURES MATRIX

This table shows which features are Preconditions and Optimizations for the different typologies of the standard for commercial and institutional offices. Refer to the tables in the beginning of each concept for details about the applicability of specific parts.

For occupied spaces to obtain WELL Certification, all Preconditions are required for the Silver level and completion of Optimizations allow projects to receive higher award levels. For Core and Shell projects to achieve WELL Compliance, all Preconditions are required, as well as at least one Optimization from every concept.

COMPLIANCE		PRECONDITION	OPTIMIZATION	Core and	New and Existing	New and Existing
CERTIFICATION		PRECONDITION	OPTIMIZATION	Shell	Interiors	Buildings
Air						
01	Air quality st	andards		P	P	P
02	Smoking ban			P	P	P
03	Ventilation e	ffectiveness		P	P	P
04	VOC reduction			P	P	P
05	Air filtration			P	P	P
06	Microbe and	mold control		P	P	P
07	Construction pollution management			P	P	P
08	Healthy entrance			P	0	P
09	Cleaning protocol				P	P
10	Pesticide management			P		P
11	Fundamental material safety			P	P	P
12	MoistUre management			P		P
13	Air flush				0	0
14	Air infiltration management			0	0	0
15	Increased ventilation			0	0	0
16	Humidity control				0	0
17	Direct source ventilation			0	0	0
18	Air quality monitoring and feedback				0	0
19	Operable windows			0	0	0
20	Outdoor air systems			0	0	0
21	Displacement ventilation				0	0
22	Pest control				0	0
23	Advanced air purification			0	0	0
24	Combustion minimization			0	0	0
25	Toxic material reduction				0	0
26	Enhanced material safety				0	0
27	Antimicrobia	activity for surface	90		0	0
28	Cleanable er	nvironment			0	0
29	Cleaning eq	Uipment			0	0
Watar						

COMP	LIANCE PRECONDITION	OPTIMIZATION	Core and	New and Existing	New and Existing			
CERTI	FICATION PRECONDITION	OPTIMIZATION	Shell	Interiors	Buildings			
Nouris					1			
38	Fruits and vegetables			P	P			
39	Processed foods	Р	P	P				
40	Food allergies	P	P	P				
41	Hand washing			P	P			
42	Food contamination		P	P				
43	ficial ingredients	0	P	P				
44	Nutritional information	ō	P	P				
45	Food advertising	ŏ	P	P				
46	Safe food preparation materials		0	Ó				
47	Serving sizes		0	ō				
48	Special diets		ŏ	õ				
49	Responsible food production		ŏ	ŏ				
50	Food storage		ŏ	ŏ				
51	Food production	0	õ	õ				
52	Mindful eating		ŏ	ŏ	ŏ			
Light								
53	Visual lighting design			Р	P			
54	Circadian lighting design			P	P			
55	Electric light glare control		Р	P	P			
56	Solar glare control		0	P	P			
57	Low-glare workstation design		<u> </u>	o v	o r			
57	Color quality			0	0			
59				ŏ	ŏ			
60	Surface design Automated shading and dimmi			ŏ	0			
61		ng controis	0	0	0			
62	Right to light	ö	0	0				
	Daylight modeling			0	0			
63	Daylighting fenestration		· · ·	U U	0			
Fitness		_	Р		Р			
64	Interior fitness circulation		٣	0	P			
65	Activity incentive programs			Р				
66	Structured fitness opportunities	-	0	0				
67	Exterior active design	0	0	0				
68	Physical activity spaces	0	0	0				
69	Active transportation support	<u> </u>	0	0				
70	Fitness equipment		0	0	0			
71	Active furnishings			0	0			
Comfo								
72	ADA accessible design standar		P	P	P			
73	Ergonomics: visual and physica		P	P				
74	Exterior noise intrusion		Р	0	P			
75	Internally generated noise		0	P	P			
76	Thermal comfort		Р	P	P			
77	Olfactory comfort		0	0				
78	Reverberation time		0	0				
79	Sound masking		0	0				
80	Sound reducing surfaces		0	0				
81	Sound barriers		0	0				
82	Individual thermal control		0	0				
83	Radiant thermal comfort	0	0	0				

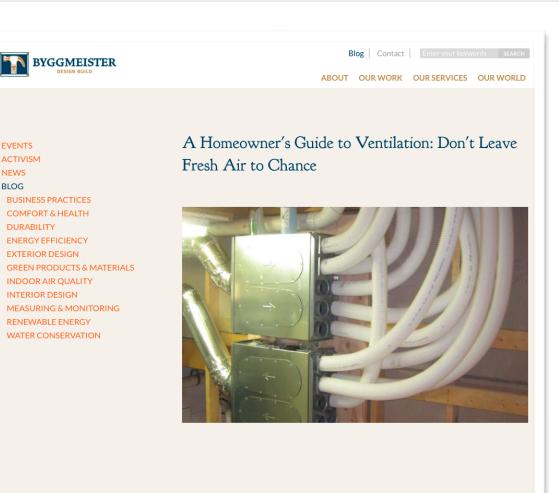


Relevant Content & Messaging

Healthy home topics

The indoor environment Healthy Home & IAQ Energy Costs & Clean Air Comfort Reliability/Resiliency Lighting Acoustics

- Specific services
- Expertise
- FRESHNESS!



By Paul Eldrenkamp

The potential consequences of not thinking about your home's ventilation—or of inst leaving it to chance—are either that you're overseentilating, which is expensive



Content That Connects Health & Home

- The Effects of Mold
- Your House, Your Kids and Asthma
- Low Levels of Carbon Monoxide--Are You Safe?
- The Air in Your House--Where's it Come From?
- Is Your House Making You Sick?
- Pests in Your Walls--Not Just an Annoyance
- Choosing Healthy Materials for Your Home

Getting Found = Having Content



27

Long From Storytelling:

Advanced Landing Pages



Is Your House Making Your Family Sick? Without a whole-home approach, issues can arise that may lead to health concerns, like mold growth, poor ventilation, radon gas infiltration, and poor indoor air quality. Issues like these can affect the health of your entire family. Symptoms may vary from person to person, so it's important to know about the many symptoms associated with poor home health. **Physical Symptoms Cognitive Symptoms** Skin irritation · Frequent headaches · Fatigue, weakness & lethargy · Foggy thinking or short term memory loss Frequent sickness · Difficulty sleeping and waking up **Emotional Symptoms Respiratory Symptoms** Mood changes · Coughing or shortness of breath · Feeling agitated or depressed · Sinus congestion · Worry or anxiety · Increased asthma symptoms Pets Pets can be even more sensitive than humans are to household chemicals and allergens Does This Sound Like You? I think my house is making me sick. My hardwood floors are warping I get headaches and feel dizzy but it all goes away have a lot of moisture in my crawlspace from the recent rain and it's messing up my floors! when I leave the hous The house smells damp and musty but I can't figure out where it's coming from or what's causing it Which Symptoms are you Seeing in Your Home? The first clue that a home has a performance issues is when symptoms appear. This happens when the house is constructed and maintained with a piecemeal (1) Excess Dust & Dirt · House looks dingy, even after it's been cleaned Increased allergy symptoms, especially after cleaning Frequent dusting, especially after turning on the heat or AC (2) Condensation & Mold Growth Condensation on the inside of windows in the winter

· Visible mold growth in bathrooms, on window sills, on air registers, etc. · Mold stains on bathroom ceilings and above leaky windows & doors

(3) Unpleasant Odors House smells when you first enter, or certain rooms smell

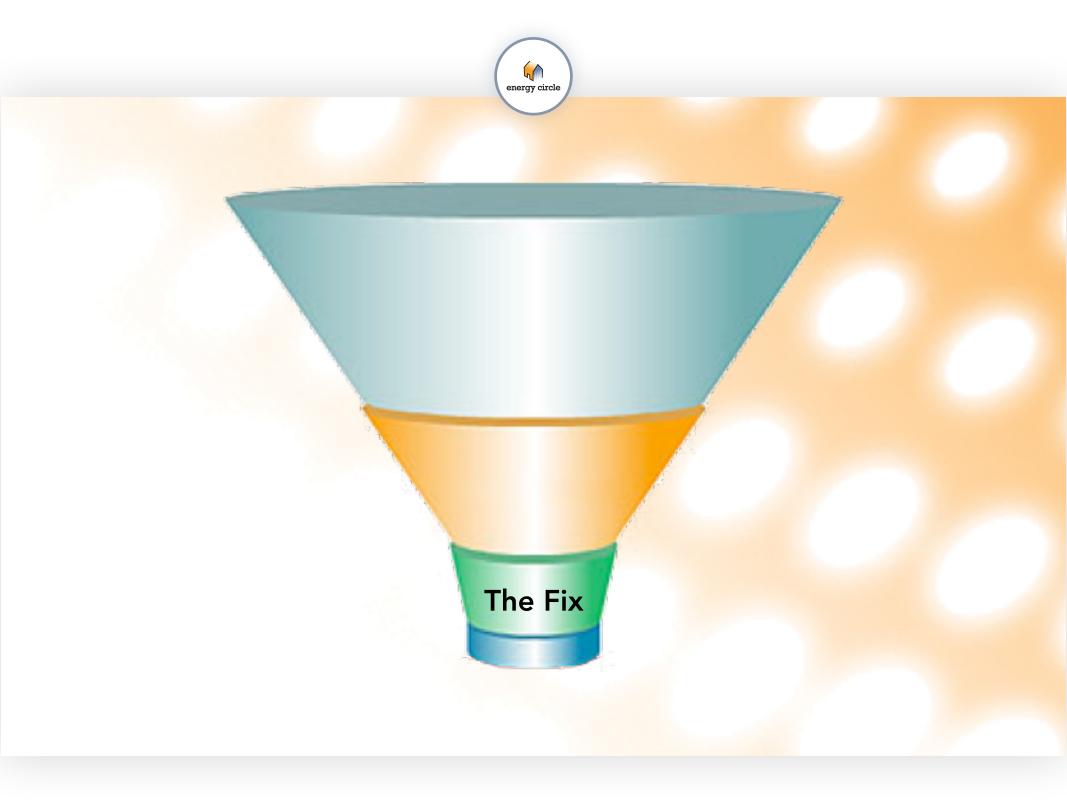
· Indoor air feels stale · Musty or moldy smells you can't get rid of

(4) Humidity Issues

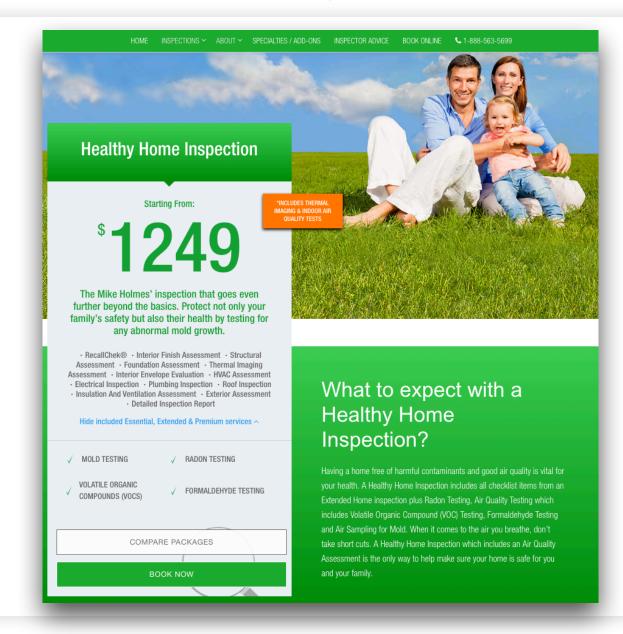
· Air feels damp or clammy, even when the air conditioning is running. · Hardwood floors cup and crack

(5) Temperature Discomfort · Home is always too hot or too cold · House feels drafty, especially during the winte





First: Explain Your Diagnostic Approach

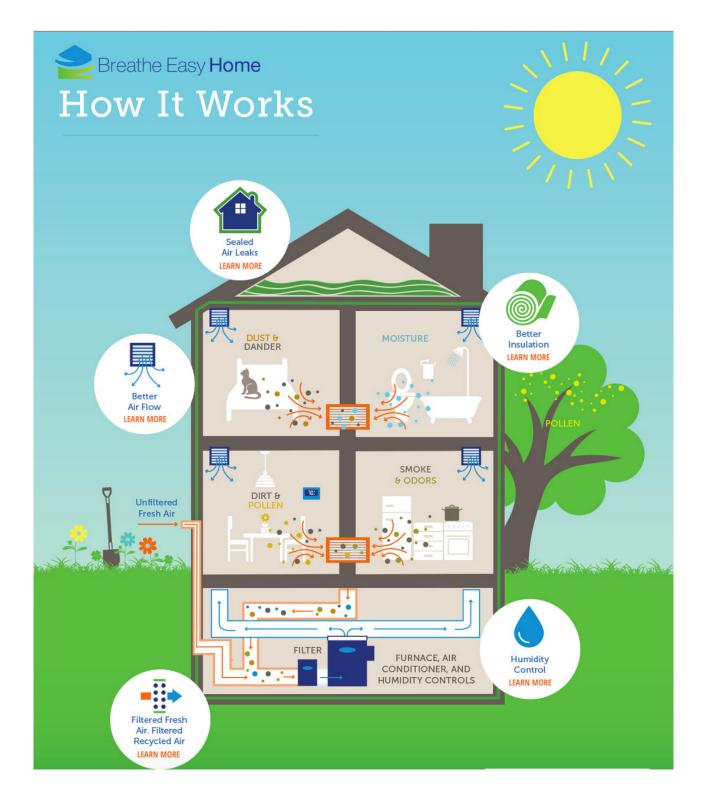




Communicate Your Services

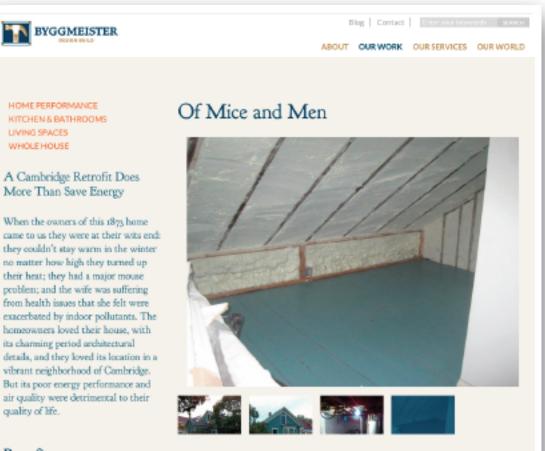
- Envelope Control (air leakage)
- Whole House Ventilation
- Crawlspace Encapsulation
- Duct cleaning and sealing
- Moisture Control
- Equipment Replacement





Use Case Studies

- Measures We Implemented
- Voice of the Client



Benefits COMFORT & HEALTH



Customer Journey Example: Facebook

Don't forget this important spring cleaning task! https://goo.gl/qzZaHM



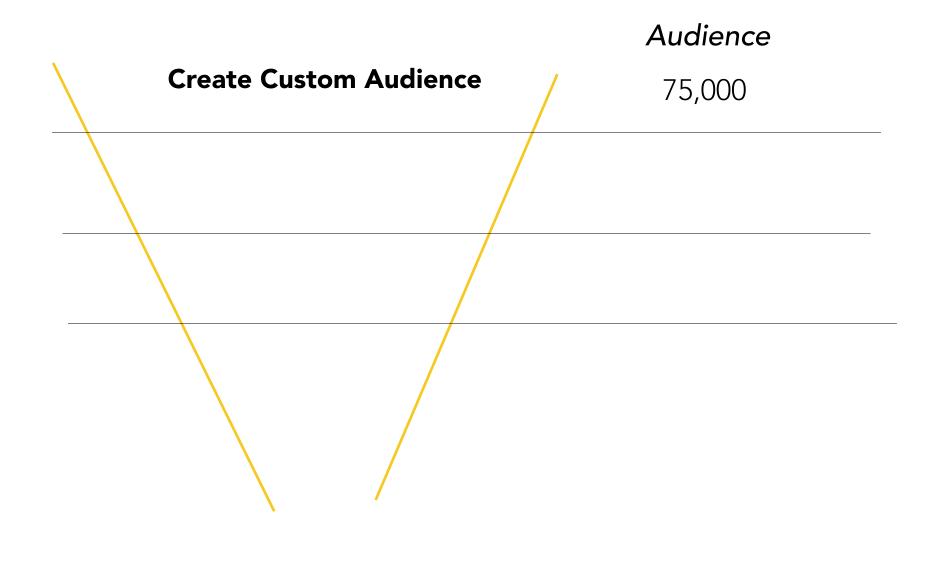
Add a Healthy Home Evaluation to Your Spring Cleaning List

With the weather finally warming up and the days getting longer, you're probably itching to tackle some projects around the house. Maybe you've caught the...

Learn More

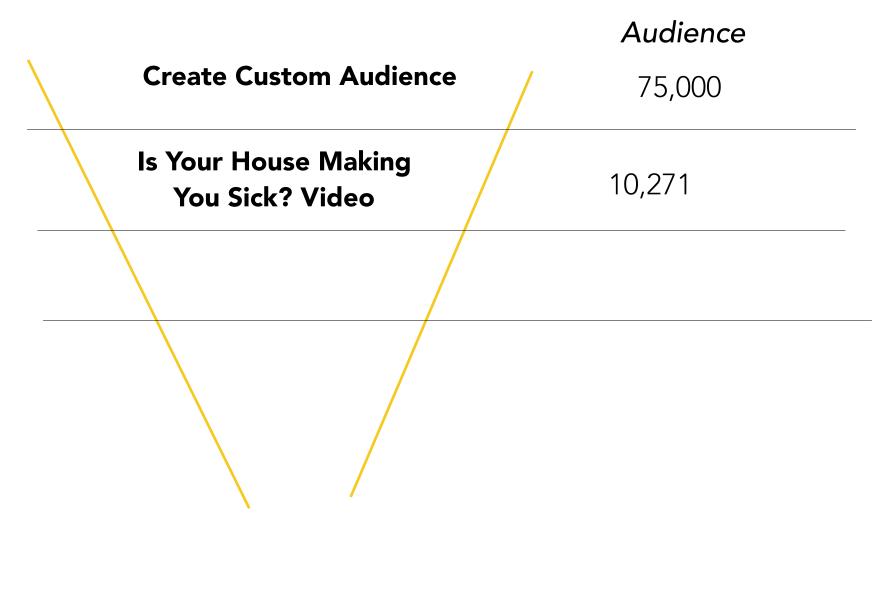


Facebook Custom Audiences



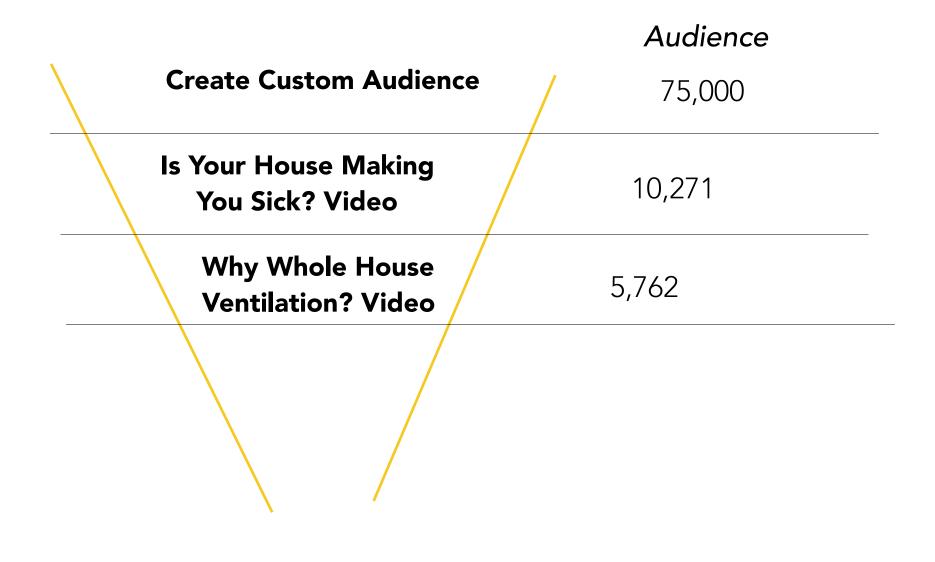


Facebook Custom Audiences



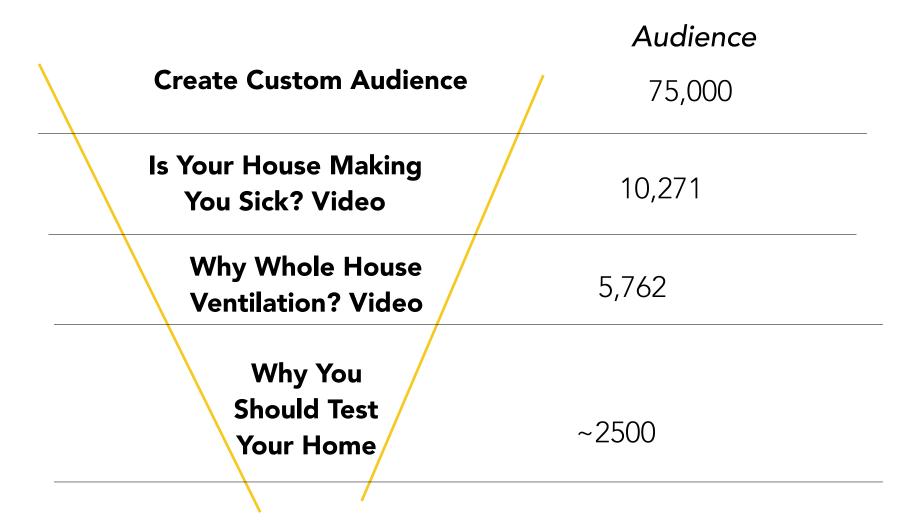


Facebook Custom Audiences





Facebook Custom Audiences



Web Visits & Lead Conversions





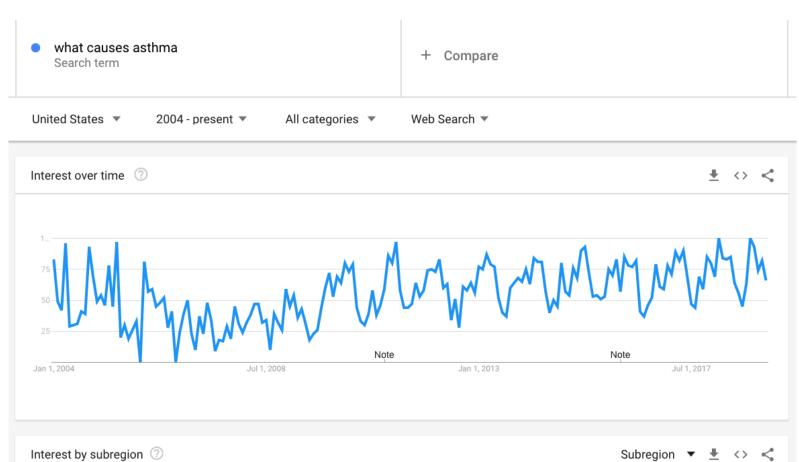
QUESTIONS?

Peter Troast

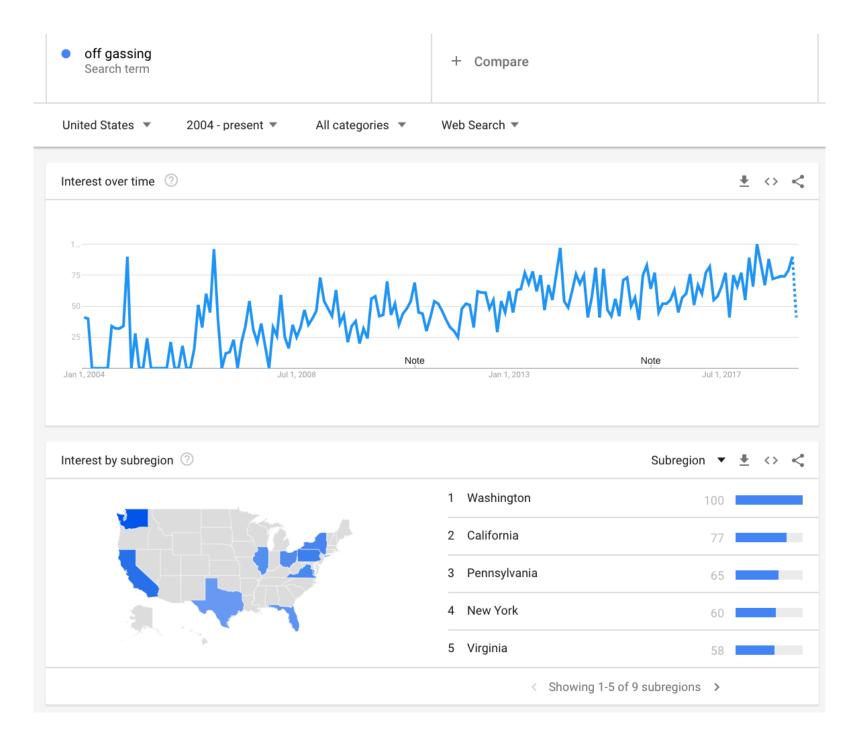
peter@energycircle.com

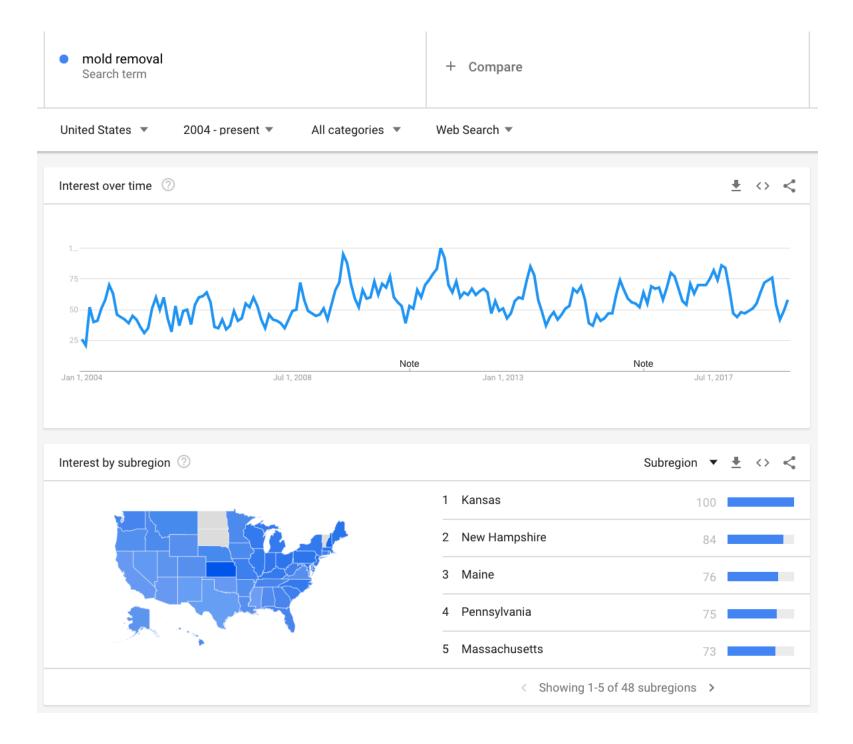


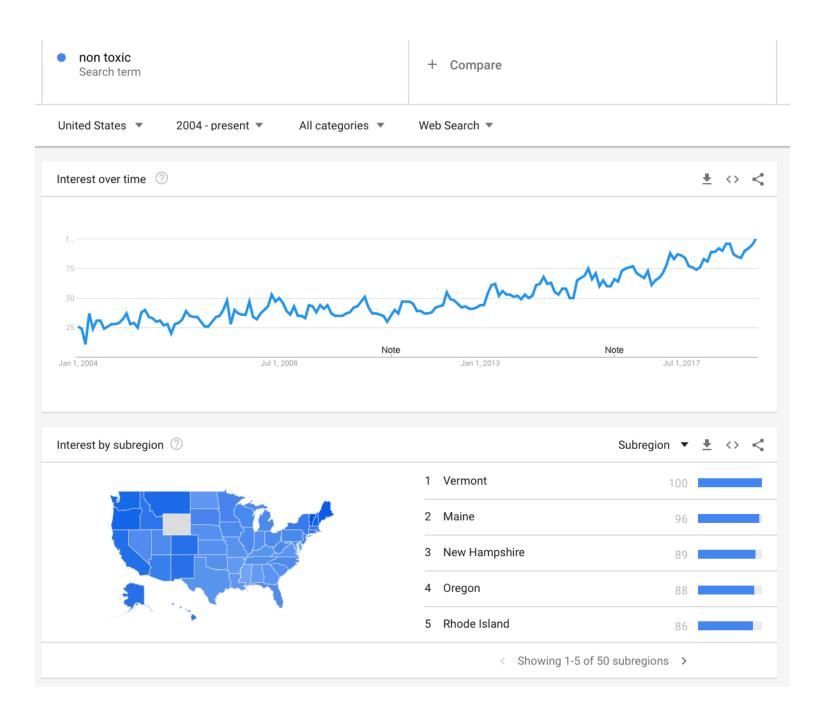
APPENDIX (additional data slides)

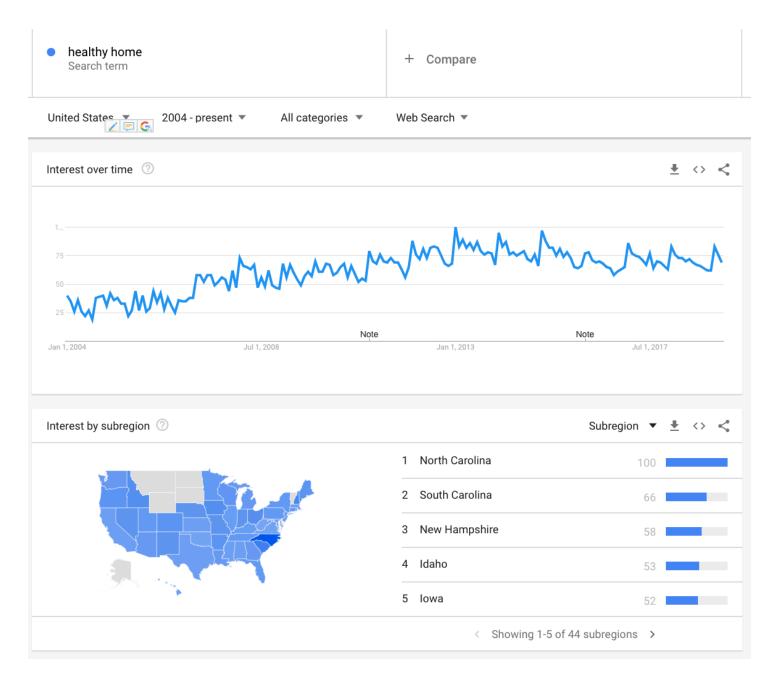




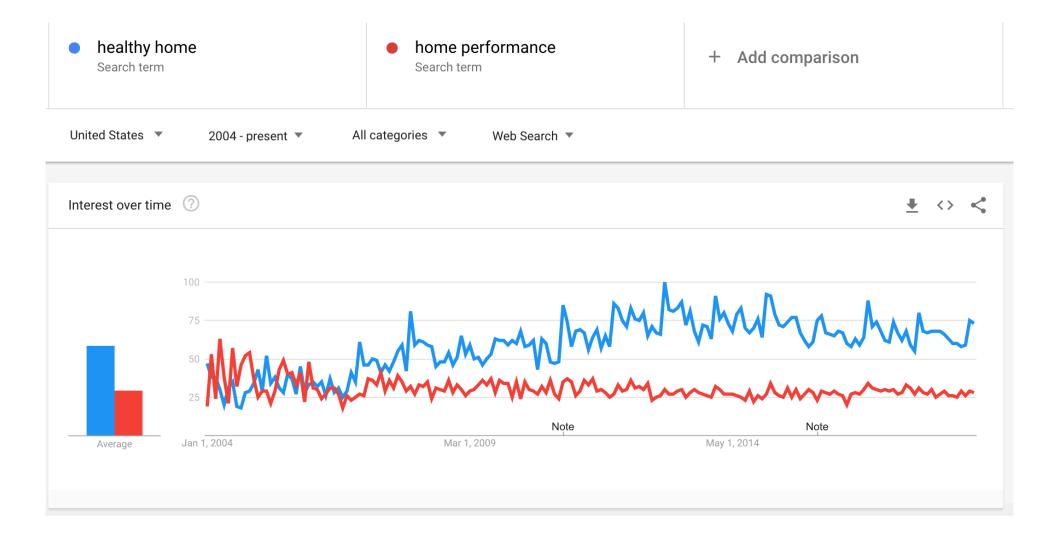






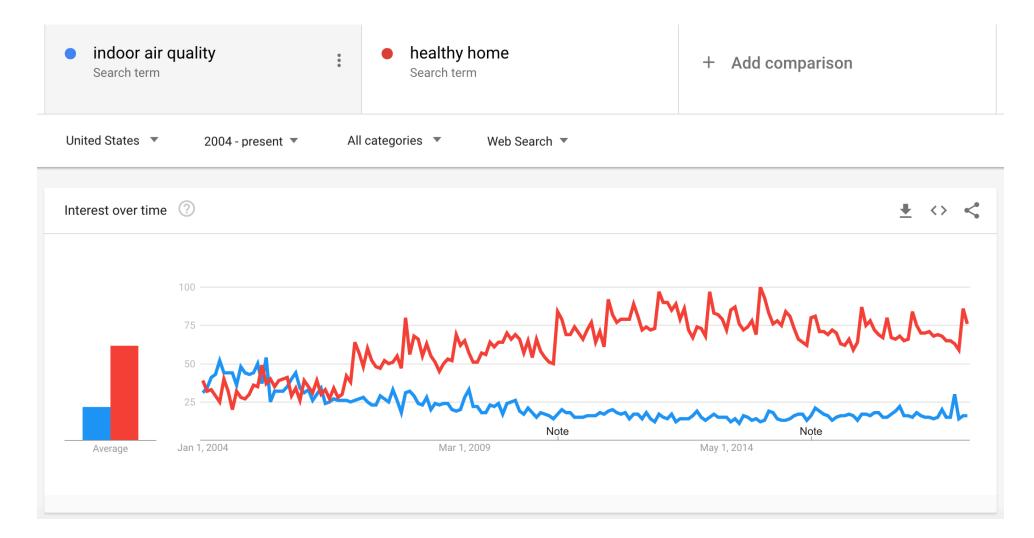


Healthy Home vs Home Performance





Healthy Home vs IAQ





RESEARCH BRIEF

IMPROVING AMERICA'S HOUSING

Healthy Home Remodeling: Consumer Trends and Contractor Preparedness

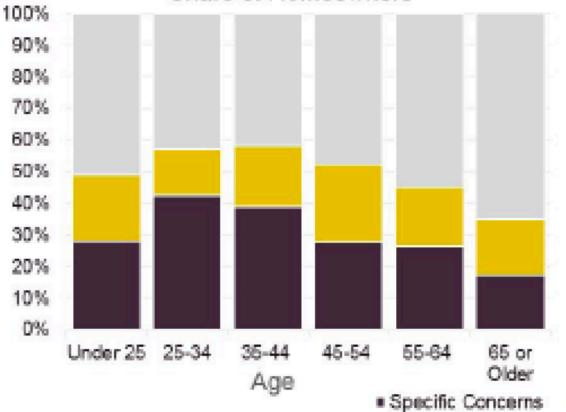
JANUARY 2019 | ELIZABETH LA JEUNESSE



n = 2469 Summer 2018

FIGURE 3: HEALTHY HOUSING CONCERNS ARE HIGHEST IN EARLY-MIDDLE AGES, ESPECIALLY AMONG OWNERS

IN THE PAST FEW YEARS, HOW CONCERNED HAVE YOU BEEN ABOUT YOUR CURRENT HOME NEGATIVELY AFFECTING YOUR OR ANOTHER OCCUPANT'S HEALTH?



Share of Homeowners

Note- Out of a sample of 1,751 homeowners and 718 renters. Source- Farmaworth Broup and Joint Center Healthy Homes Surveys, August 2018.

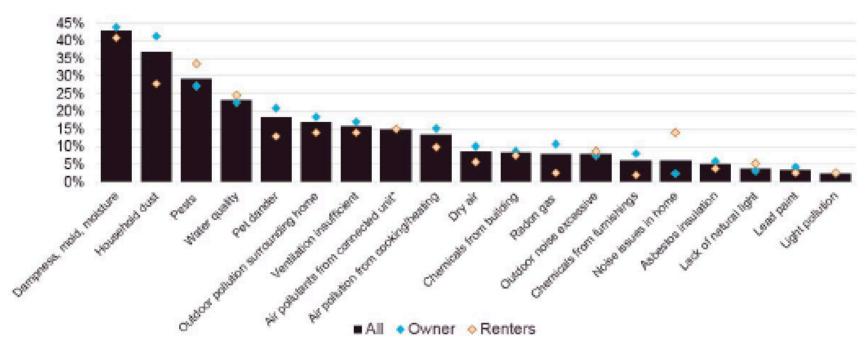
FIGURE 4: INDOOR AIR QUALITY, PESTS, AND WATER QUALITY ISSUES TOP LIST OF CONCERNS ABOUT THE IMPACT OF HOME ON HEALTH

WHICH CATEGORY OR CATEGORIES BEST DESCRIBE YOUR CONCERN ABOUT THE IMPACT OF YOUR HOME ON YOUR HOUSEHOLD'S HEALTH?



Note. Out of a sample of 501 homeowners and 250 renters concerned about specific healthy housing issues. Source: Farmaworth Broup and Joint Center Healthy Homes Surveys, August 2018.

FIGURE 5: DAMPNESS/MOLD, HOUSEHOLD DUST, PESTS TOP LIST OF CONCERNS ABOUT INDOOR ENVIRONMENTAL QUALITY ISSUES



INDOOR ENVIRONMENTAL QUALITY ISSUES THAT GENERATED THE MOST CONCERN

Notes. Out of a sample of 493 homeowners and 244 renters concerned about indoor environmental quality issues (i.e., issues other than accessibility and basic physical safety). Households were asked, "Among the healthy home issues that concerned your household, please select up to three of them that generated the most concern." [*] denotes that the question was not asked of homeowners.

Source: Farmaworth Broup and Joint Center Healthy Homes Surveys, August 2018.