

Show Me The Evidence: **Challenges** in **Evidence**based reporting

By Julia Belluz, Vox









Infowars







ABCDEFGHIKLMNOPRSTUVWXYZ

If any of these results seems incorrect, please report it using the link next to the article.

magnets prevent cancer

• <u>Tiny magnets that could help win the war on cancer</u>

mammograms both cause and prevent cancer

- <u>Mammograms 'can increase breast cancer risk'</u>
- Breast scans 'may be a risk to some women'
- <u>Is your x-ray safe?</u>
- <u>Breast checks 'do no good'</u>
- Women over 70 urged to get screened for breast cancer
- <u>Screening halves deaths from breast cancer</u>
- <u>Breast cancer screening: the facts</u>
- <u>A 'breakthrough' breast cancer scan</u>

marriage prevents cancer $\underline{\#}$

- From cancer to heart disease, the amazing, life-saving benefits of marriage
- <u>Women in tumultuous marriages have smaller breast tumours, report finds</u>



IN MICEindependent.co.uk/news/science/e...



Exercise during pregnancy protects children from obesity, study ... Exercising during pregnancy can protect children from obesity later in life, a study has found. Previous studies have already demonstrated that independent.co.uk

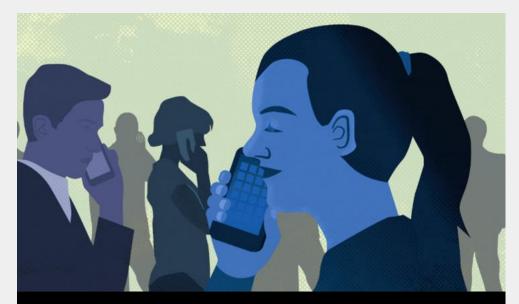
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Fighting the health bunk:

- What we've learned about evidenceinformed health comms
- The challenges and pitfalls
- How you can get involved

Show Me The Evidence



A comprehensive guide to the messy, frustrating science of cellphones and cancer

By Julia Belluz | November 2, 2018

by Julia Belluz, updated May 5, 2016, 12:34 p.m. ET

E-cigarettes and health: Here's what the evidence actually says

by Julia Belluz and Javier Zarracina April 28, 2016, 6:00 a.m. ET Why you shouldn't exercise to lose weight, explained with 60+ studies

by Julia Belluz, updated April 13, 2016, 11:25 a.m. ET

For years, the government told Americans to avoid fat. That was wrong.

What we know:

A clear bottom

Low back pain is the second most common cause of disability in the US, but the most popular treatments out there — spine surgery, opioid painkillers, steroid injections are unhelpful for most people, or even down-

> e increasingly suprograms and alter-

that can help people alleviate their sore backs.



What it means for you:

If you have chronic back trouble, get your doctor to rule out serious causes. Then stay active, and work with a health care professional to check out alternative treatment approaches — a strength training or aerobic exercise program, massage, Pilates, psychotherapy, chiropractics, tai chi, etc. These alternatives can help you manage your symptoms, though generally with modest effects.



What we don't know:

How to identify the cause of persistent back pain in most cases, and how to "cure" it. It's also not clear which of the available alternative therapies and exercises work better than others.



What this means for policy:

Back problems cost America an estimated \$90 billion a year. Yet there's a big disconnect between what the evidence suggests helps people (ie., exercise programs, massage) and what's covered by health insurance providers (ie., surgery, opioids). We need insurance plans that reimburse patients and providers for a broader range of back pain treatments, following a highly successful model in the state of Oregon.



Communicate research methods

We focused our search strategy on cancers of the head and neck because these parts of the body are thought to get the most exposure to radio frequency radiation during cellphone use.

We limited our search to studies that were conducted in humans, and whose outcome was one of actual head or neck cancers (rather than things thought to be linked to cancer).

Specifically, we looked for studies that measured rates of acoustic neuromas, gliomas, meningiomas, and thyroid cancers. We also narrowed our search to studies that looked at the effect of radio-frequency radiation originating from an actual cellphone, rather than experimental equipment. We did this because we wanted evidence that could apply to real life, not specific laboratory settings or hypothetical outcomes.

Searching PubMed for studies published in the past 10 years, we found 102 studies that ultimately resulted in 12 relevant systematic reviews. To limit bias in our assessment of the literature, we used a validated critical appraisal tool called AMSTAR to determine the quality of each review. Eight of the reviews were critically low quality, two were low quality, and two were moderate quality.





Today, Explained

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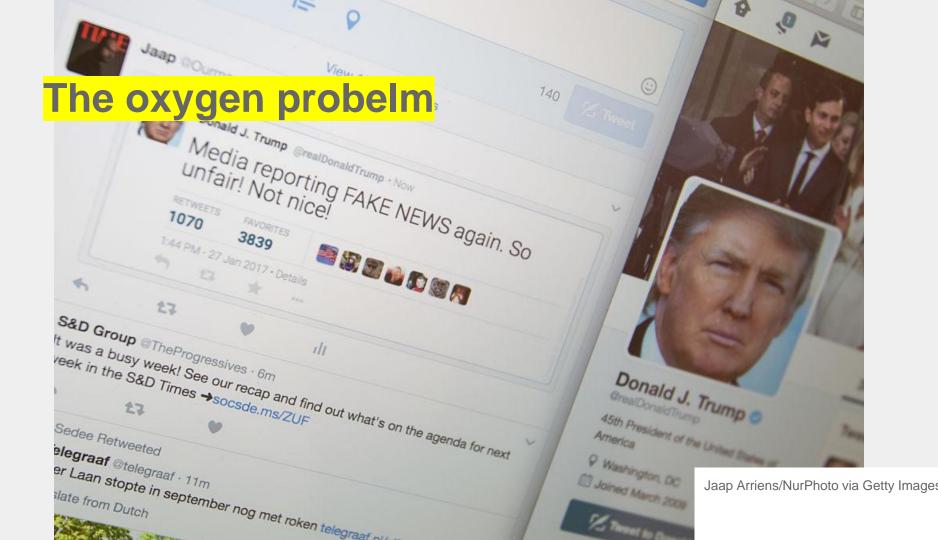
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Show Me The Evidence approach:

- Studies in Context
- Prioritize higher quality evidence
- Communicate uncertainty
- Instead of debunking, how you know
- Transparent about methods
- Accurate, thorough, clear!!!





We're investigating how insurance gap endanger mothers. This is why.

When there is no evidence^{ed off Medicaid soon after giving birth or} to begin with.

By Julia Belluz and Nina Martin | Apr 25, 2019, 5:00am EDT

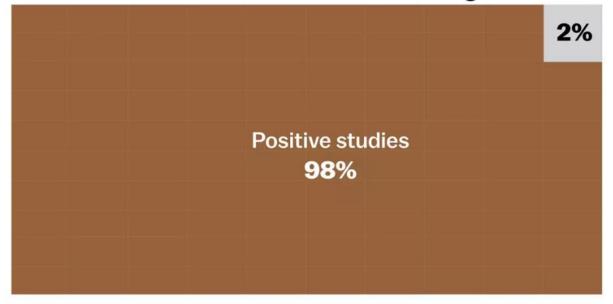
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We analyzed 100 health studies funded or supported by Mars

Neutral or negative studies





Source: Vox analysis

Javier Zarracina/Vox



The keto moment

The extreme diet phenomenon may offer clues on how nutrition can treat disease.

By Julia Belluz | @juliaoftoronto | julia.belluz@voxmedia.com | Jul 25, 2019, 6:59am EDT

Finding the the story in the science

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Getty Images

How you can help?

- Collaborations
- New tools for helping journos evaluate science
- Join the conversation! Twitter, op-eds, blogs
- Start conversations with reporters/editors you trust
- When you spot bunk, hold bunk peddlers to account — including journalists

For sources, my colleagues suggest:

- "One thing I would like more scientists to do is be available to talk about the foundations of their fields rather than new findings."
- "I don't just want to know the findings, I want to know why you're interested in asking the question in the first place."
- "I always appreciate it when a scientist directs me to talk to other people, and those other people aren't just white men."

Keep in touch!



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