How and Why Too Much Health Journalism Can Lead the Public Astray

1st International Symposium on Understanding Health Benefits and Risks: Empowering Patients and Citizens

May 29, 2009
Who am I?

• Former medical reporter for *U.S. News & World Report*

• Mainly covered environmental and men’s health for *U.S News*. This involved a great deal of reporting on prostates

• Jumped ship last November to take a new position as an earth science writer at NASA Goddard Space Flight Center

• Have recently started blogging as the “DC Bicycle Transportation Examiner” for examiner.com.

• Bottom line: I’m still pretty green. What you’ll get from me are as much first impressions as the wisdom of a hardened veteran.
What we’re up against…

Encourage grandma to subscribe to:
A) A good print publication
B) Good health blogs
Instead of watching TV health news.

Beware the researcher who is desperate for funding (or fame)
Beware of releases from meetings that haven’t been peer reviewed

Try to find the actual study on Pub Med.

Friends don’t let friends watch television health news. It’s bad for your health! (There are, of course, exceptions to this rule)
Can we break the cycle? Hopefully, yes, if we…

1. Harness the potential of the web

2. Require that journalist/lay public friendly summaries/graphics be a mandatory component of peer reviewed research publications. (relative vs. absolute risk, NNT, study design key)

3. Improve transparency of published articles. (Who’s funding? Nature of researcher’s ties to industry?)

4. Ensure that journalists have a stronger background in statistics
Setting the stage I

- Newspaper and news magazine circulation is dwindling as readers move online.

- 8% drop in newspaper circulation during the last seven years.

- 37% of people surveyed by Pew said they had gone online for news within a day of being surveyed. Up from 30% two years earlier.
The problem: Online ads are worth a fraction of their print counterparts

Result: Layoffs, fewer experienced reporters, diminished quality of reporting

By the end of 2009, the total job loss since the beginning of 2001 will likely pass 14,000—roughly 25% of the industry’s news workforce lost in nine years. (newspapers)
The reporters who survive often lack expertise in medical reporting but are expected to write more frequently than ever for a variety of platforms (print, web, twitter, facebook, etc).

Some media organizations have begun to focus on “quick hits” and “SEO” instead of producing quality journalism.

94% of AHCJ members said bottom line pressure is seriously hurting the quality of medical journalism.
Case study: Too much information about prostate cancer

- Extremely common condition (1/6 of men will be diagnosed. Virtually all elderly men eventually develop it).
- About 90 percent of tumors are slow growing and will cause no problems if left untreated.
- The other ten percent can spread aggressively and kill.
- We have an unreliable screening test (PSA)
- We have a variety of treatments that can have nasty side effects (surgery, radiation, brachytherapy, HIFU, cryotherapy), many of which are expensive, invasive, and have risks.
- Many men leave it up to their docs to decide what to do.
- Strong economic incentive to treat.
The media can’t resist writing reams of stories on this evergreen topic but news consumers end up...

• **Getting a parade of uncritical stories** about “breakthrough” procedures and screening tests (Robotic surgery, brachytherapy, HIFU, cryosurgery).

• **Getting spun by groups with commercial interests** who argue we should be treating anybody and everybody who comes along (hospitals, specialists, medical device companies make the case that x, y, or z treatment is the best using questionable statistics).

• **Getting unsubstantiated advice** due to the media’s tendency to serve up “news you can use” and “consumer health tips” (get screened, consider this treatment, take this or that unproven supplement, eat this or that food).

• **Reality check:** The evidence suggests that none of these treatments extend a man’s life in comparison to active surveillance. Many of them carry serious risks of life-altering side effects. Getting screened doesn’t seem to prolong life either for most men.
A missed opportunity: proton beam therapy

This expensive technology is expanding fast, and many journalists are writing about it like flaks or cheerleaders. We need to be asking more questions about how well it really works for prostate cancer, whether it’s worth the cost, and what sorts of conflicts of interest come into play before we end up with an expansive network of centers that we realize later that we don’t want or need.
Case Study: Nutrition

- Few can keep track of all the nutrition news--much of it conflicting--that bounces around.

- Issues: Studies are often reported prematurely, don’t prove causality, contain misleading risk stats, are overly focused on micronutrients or a specific “superfood”, or are sponsored by those with an obvious conflict of interest.

- Bottom line: Many nutrition studies are unreliable and little more than marketing ploys. Journalists are largely to blame for gullibly and uncritically exaggerating individual study results to the public, which is confused about what the medical evidence really shows about diet at this point.
What the media should be saying instead

• Eat less processed food (less soda, more whole grains, less salt, less sugar)
• Eat a broad variety of fruits and vegetables
• Eat less meat and dairy
• Look at your overall dietary pattern, not individual foods

Michael Pollan: "Eat food. Not too much. Mostly plants."
Case Study: Bicycle Helmets

- Intense public health messaging about helmets.
- Searched for “bicycle safety” going back to 2000 on PubMed.
- More than half about helmets
- Message to public: A “safe” rider = a “helmeted” rider
- You’ll often hear that bike helmets prevent 75 or 80 percent of fatal head injuries
True, but there’s more to the story

• One problem: helmets don’t prevent accidents, they prevent head injuries when an accident has already taken place.
• By focusing exclusively on helmets we neglect other important bike safety issues (safety in numbers, alcohol, infrastructure, lights, rider/driver education, etc.)
• We create an impression that biking is more dangerous than it is, fewer people bike, so it’s possible that emphasizing helmets so intensely actually makes cyclists less safe.
• Other countries follow a different approach and have a much better safety record.
Not all bad news

- The internet has vast potential.
- Able to present information online in new and sophisticated ways.
- Comments foster engagement, can contribute to stories.
- Ultimately, the web gives us easy access to more credible and ethical health information than ever before (as long as we can find it amidst all the noise).
The web’s potential: understandinguncertainty.org

What is this site?
This site is produced by the Winton programme for the public understanding of risk based in the Statistical Laboratory in the University of Cambridge. The aim is to help improve the way that uncertainty and risk are discussed in society, and show how probability and statistics can be both useful and entertaining! However we also acknowledge that uncertainty is not just a matter of working out numerical chances, and aim for an appropriate balance between qualitative and quantitative insights.
The Web’s potential II
Web’s Potential III

Your chance of experiencing bowel cancer without Bacon sandwiches is 5%, which is increased to 6% with Bacon sandwiches.
Web’s Potential IV

Your chance of experiencing bowel cancer without Bacon sandwiches is 5 in 100, which is increased to 6 in 100 with Bacon sandwiches.

Of 1000 possible outcomes, 50 will involve you experiencing bowel cancer without Bacon sandwiches, which is increased to 60 out of 100 with Bacon sandwiches.
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