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Storytelling and public health: The power of emotion in science

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As a pediatrician and writer for such hit TV shows as *China Beach, ER,* and *Law & Order: SVU*, Dr. Neal Baer used creative storytelling to share important public health information with millions of people.

Few public health professionals will ever have an opportunity to share their knowledge with such a broad audience. But that doesn't mean they can't use a compelling narrative and outreach to draw attention to their own research findings and data, said Baer, who spoke at the Yale School of Public Health on April 9 as a guest of Dean Sten H. Vermund.

"Most people are not data-driven," said Baer, M.D., a Harvard-trained pediatrician and adjunct professor at the UCLA Fielding School of Public Health. "They are driven by emotional stories. Only then, can we provide the data, give them context, give them evidence. But they need to be moved by the story first."

As an example, Baer mentioned that scientists know about 8 million metric tons of plastic are dumped into the world's oceans annually creating a huge environmental problem and a life-threatening hazard to

marine life. Yet, it wasn't until people saw the story of a sea turtle with a single straw painfully wedged up its nose that a worldwide movement to ban plastic straws finally took hold.

"It took that one story to capture people's hearts," said Baer, believed to be the first doctor/writer in modern day television. The focus of his presentation was "Storytelling and Public Health: The Power of Emotion in Science."

Baer uses stories from his own experience as a pediatrician working in the Venice Family Clinic, the largest free clinic in the nation, as well as medical cases capturing national headlines, to convey important public health information to viewers. His award-winning shows have tackled such issues as gun violence as a public health concern, HIV among active health professionals, and whether parents who don't vaccinate their children are culpable for the death of a stranger's child, who succumbs to a virus like measles spread by their unvaccinated child.

The pattern repeats in Baer's latest show, *Designated Survivor,* premiering in June on Netflix. In the new show, Baer addresses child marriage in the United States (only two states – New Jersey and Delaware – currently prohibit marriage of a person under 18) and whether people with undetectable HIV bear some responsibility to tell their partners.

"Practicing medicine and being in public health is really practicing social justice," said Baer. "And I have this conduit for telling stories that I'm very passionate about. I am able to tell stories that I hope will make a difference. Are we pushing the envelope this season? Oh yeah."

Curious to see what kind of impact his shows were having on the public, Baer conducted a study of viewers with the assistance of the Princeton Survey Research Center. The study, funded by the Kaiser Family

Foundation and published in Health Affairs in 2001, looked at viewers' awareness regarding human papillomavirus (HPV) and cervical cancer before and after viewing an *ER* episode on the topic.

Here's what the researchers found:

- Only about 9% of regular *ER* viewers could correctly define HPV before the show aired.
- 28% could define HPV after seeing the episode.
- 16% retained accurate knowledge about HPV six weeks after the episode.

In terms of viewers' knowledge of HPV's relationship to cervical cancer:

- 19% were aware that HPV causes cervical cancer before the episode aired.
- 60% were aware of the HPV-cervical cancer connection after the show.
- 38% retained that knowledge six weeks later.

"It's clear if you watch the show, there are so many data points about all of the issues involved," but they are tucked into the story narrative, said Baer.

Curiosity is the gateway to empathy. There is much we can do in storytelling to boost people's attitudes and to get them to talk about these things."

On some issues, Baer takes things a step further.

After learning of a massive backlog of thousands of untested rape kits, Baer devoted an entire episode of Law & Order: SUV to the issue. The underlying message? "Not testing rape kits is telling victims they don't

matter and telling perpetrators they can get away with rape," said Baer.

But that was only the start. After the show aired, Baer tweeted out the news on social media, posted it on prominent NBC blogs and wrote a news piece for *The Huffington Post* with *Law & Order* actress Mariska Hargitay. He also enlisted support from *New York Times* columnist Nicholas Kristof, who retweeted Baer's tweet to his own one million Twitter followers. Baer then worked with the organization Human Rights Watch to spread the news, providing people with an online 'kit' to help them bring the issue to the attention of others in their home communities.

"I call this bridging the gap between inspiration and action," Baer told a large audience of student and faculty gathered in Winslow Auditorium "People are often inspired by our stories, but they don't know what to do. So, we have to, in a way, take their hands and lead them to action."

Public health professionals can do the same thing, he said. One of the first steps in raising awareness of an issue is to identify your "affinity groups"—people and organizations that you think will be interested in the news you are seeking to share.

Gaining support from kindred spirits like Kristof and tapping into the resources of groups like Human Rights Watch, led to the rape kit story being widely reported on major news outlets. "We had thousands of media hits; we had Twitter hashtags," Baer said. And as a result of the campaign, thousands of older rape kits were tested, some leading to the arrest of perpetrators, he said.

And it all started, with an episode on *Law & Order: SVU*.

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these things."

YSPH alumnus James Hamblin, M.D., M.P.H. '18, a writer and senior editor at The Atlantic magazine, led the day's discussion with Baer. Marta Moret, M.P.H. '84, president of Urban Policy Strategies, made the introductions for the program.

"This is public health impact writ large, at a scale of educating millions at a time," said Vermund. "When one writes a peer-reviewed article, if it's cited by 50 authors, you're pretty pleased. If it's cited by 200 authors, you're astounded. You may be cited by 1,000 people for a few bodies of work in your entire career.

"Yet, for someone seeing a television program, a movie, a play, listening to a song or reading a piece of poetry, (these feelings of emotion and empathy) can also happen," Vermund said.

To that end, the Yale School of Public Health is exploring the intersection of public health and the arts and humanities through an effort being coordinated by Professor Judith Lichtman, Ph.D. '96, M.P.H. '88, chair of the Department of Chronic Disease Epidemiology.

Stay tuned.

More information: Mollyann Brodie et al. Communicating Health Information Through The Entertainment Media, *Health Affairs* (2003). DOI: 10.1377/hlthaff.20.1.192

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