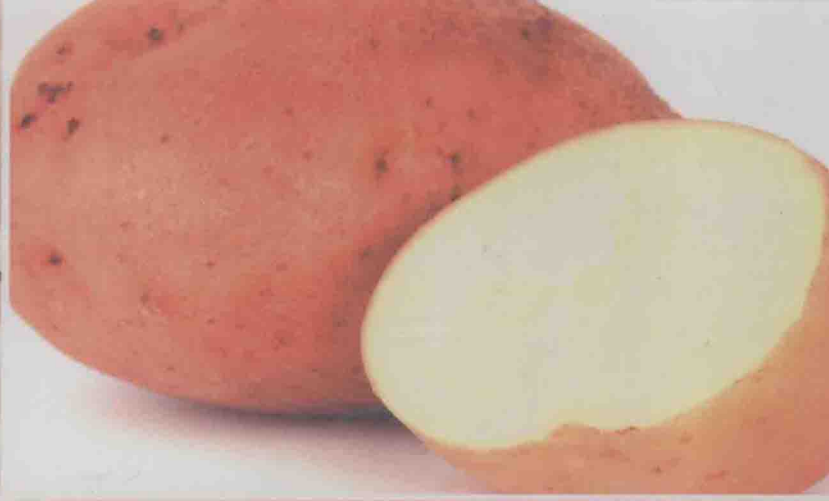

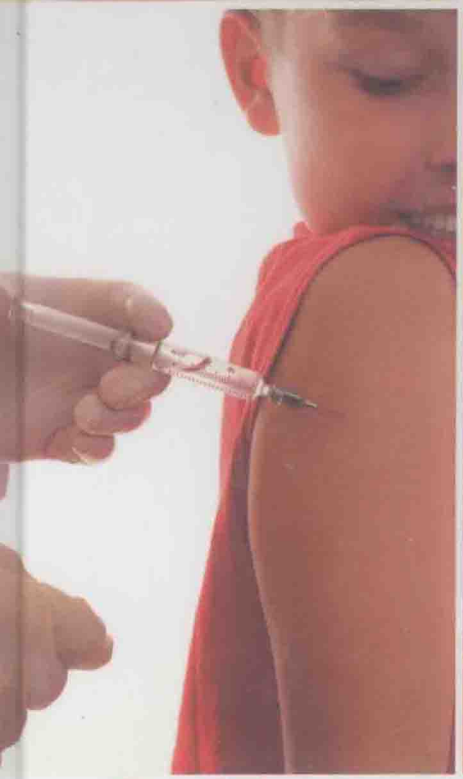

50 HEALTH SCARES THAT FIZZLED

Joan R. Callahan

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INTRODUCTION

It's much easier to scare people than to unscare them.

—Dr. Paul Offit (*Autism's False Prophets*, 2008)

As the title suggests, this book is about media events known as health scares that have ended (or mostly ended) not with a bang but a whimper. To "fizzle" means to end in a way that someone finds unsatisfactory. It often refers to an event or trend that holds the promise of a dramatic conclusion and then goes nowhere. A party might be said to fizzle if the guests fall asleep or go home early. The Ford Edsel is a famous example of a car that fizzled, only to be reborn as a classic. Many a child actor's career has fizzled at puberty.

In the case of a health scare, however, fizzling is more often a cause for celebration. If the latest disease outbreak or toxic exposure du jour turns out to be less dangerous than expected—or if the public and the news media simply lose interest, irrespective of actual risk—then the scare fizzles. But even a false alarm may cause a great deal of fuss and expense that often requires a scapegoat, such as a government agency that acted on the best information available at the time, or the scientists who reported preliminary study findings and lived to eat them.

The English word *fizzle* was in use by about 1600, when it meant to break wind. By the nineteenth century, however, fizzle referred to a comparable hissing or fizzing noise produced by wet blasting powder when it burned briefly and then went out instead of exploding. Again, whether this outcome was good or bad depended on the narrator's perspective. As a result of this phenomenon, "keeping one's powder dry" has become a metaphor for maintaining a constant state of readiness for something.

WHAT IS A HEALTH SCARE?

A health scare is a highly publicized threat (or perceived threat) to human health. These scares come in all shapes and sizes, ranging from the fear of high-voltage power lines to the fear of contaminated watercress. Yet the fact that we call something a health "scare" does not necessarily imply that the scare is unfounded, or that people are gullible. A health scare often starts with a valid discovery or hypothesis that somehow fires the public imagination. The scare typically undergoes a period of growth, sometimes budding off new scares in the process, and then fizzles or otherwise ends for a variety of reasons,

such as the discovery of a cure, the banning of a toxic chemical, the debunking of an urban legend, or the arrival of a newer, more photogenic health scare. Some scares repeatedly fizzle, only to be reborn in new shapes.

The public often attributes health scares to conspiracies—by the pharmaceutical industry, the government, or the environmental left—but more often these scares seem to result from the absence of conspiracy. That is, the word "conspiracy" implies that people work together in a coordinated fashion to achieve an outcome that is detrimental to someone else's interests. But when people fail to work together at all, the results can be even worse, with independent agencies and experts and quacks all going off half-cocked. The contradictory news reporting that immediately followed the 1979 accident at Three Mile Island (Chapter 36) is a good example; early coverage of the 2009 swine flu pandemic (Chapter 8) is another. We all seem to want clear answers from closed ranks of unimpeachable experts, but instead we get exactly what the Bill of Rights guarantees: freedom of speech, and lots of it. The Internet provides immediate access to so many opinions on every issue that it is sometimes hard to take anyone seriously.

HOW A HEALTH SCARE STARTS

A health scare does not necessarily require any precipitating event. In the 1890s, for example, famed physician and Atlantean theorist Dr. Joseph P. Widney (1841–1938) wanted to create an inland sea in California's Salton Basin. He immediately encountered opposition from area residents and journalists who claimed—among other things—that the project would encourage boa constrictors and alligators to take up residence in southern California, thus endangering women and children.

Although the danger probably seemed real at the time, its proponents did not explain how these reptiles would travel from the Gulf Coast states to the Salton Basin, or why they would not also eat men. In 1905, the matter was resolved when the Colorado River jumped its banks (not for the first time in history) and filled the Salton Basin anyway. More than a century later, it is probably fair to say that boa constrictors and alligators are among the few health hazards that have *not* attended the aging of the Salton Sea.

More often, a health scare starts because of something that has actually happened. The news media frequently report that a new infectious disease is spreading somewhere in the world, or that exposure to an industrial chemical is endangering our lives, or that a widely used food, drug, appliance, or lifestyle choice causes cancer or heart disease or diabetes. All these are examples of health scares. Responsible journalists do not invent these stories out of thin air; typical sources include medical journal articles, comments by public figures, and agency press releases. When sources disagree on the level of threat, or fail to explain the problem clearly, reporters must interpret the available information as best they can.

A health scare may result from various combinations of circumstances, as summarized in Table I.1. What all these combinations have in common is that the news media report high risk. This media response appears to be a necessary condition for a major health scare, but not always sufficient to keep it going for long. Sometimes news reporting is truly scary, but the public doesn't buy it, as in the case of the 2009 H1N1 swine flu, when the health scare largely fizzled before the real pandemic had even ended (Chapter 8). To be

Table I.1 Health Scare Conditions and Outcomes

Actual Risk	Study Findings	Media Response	Outcome	Examples
High	High	High	Scare	Tobacco
High	Mixed	High	Scare	Hormone replacement therapy
Low	Mixed	High	Scare	Toxic mold
Low	Low	High	Scare	Return of smallpox
High	High	Low	No scare	Isotretoin
High	Mixed	Low	No scare	Dengue
Low	Mixed	Low	No scare	New World arenaviruses
Low	Low	Low	No scare	Clams at Torbay beach (see text)

effective, the media must often report what the public is already thinking; and in 2009, most people were probably thinking about the economic recession and terrorism and the healthcare crisis, not about the possibility of catching something as familiar as the flu.

In Table I.1 and throughout this book, the assessment of risk as high does not mean that a thing is "bad," but simply that its use or presence involves the potential for harm that may outweigh the benefits (if any). This is a highly subjective decision in many cases. Also, note that some possible combinations of circumstances are missing from Table I.1, because they would make no sense. For example, we can't list "actual risk" as high and "study findings" as low, or vice versa, because that would mean all the studies were wrong, and we would have nothing on which to base the assessment.

HOW A HEALTH SCARE KEEPS GOING

Some health scares, such as lead poisoning, have been with us for thousands of years and show no signs of ever ending. There are recent disturbing reports of lead-contaminated candy, toys, and other products exported from Mexico and China. A valid health scare such as this one cannot fizzle (or otherwise end) until the source is somehow brought under control, because newsworthy events continually return it to public scrutiny.

By contrast, many lesser health scares—including some that never made sense in the first place—keep going for years or centuries because of the so-called Bellman's Fallacy. We owe this happy phrase to Dr. Harry A. Waldron and to an 1874 poem called "The Hunting of the Snark," by Lewis Carroll, better known as the author of *Alice in Wonderland*. In the poem, a character called the Bellman states: "What I say three times is true." Indeed, whatever stories or statements we hear often enough may take on the outward appearance of truth. Many health scares resemble urban legends, in that everyone has heard someone else speak of the scare as fact, but nobody quite remembers the original

source. For example, everybody knows that poinsettia leaves are poisonous, but they aren't. Everybody knows that camels carry syphilis, but they don't.[1] And everybody knows that 90,000 Chicagoans died from a waterborne disease epidemic in 1885, but they didn't.[2]

Yet other scary incidents never become health scares at all. The Bellman does not repeat these stories three times, or even once. In the summer of 1998, for example, the wire services reported that more than 130 people wading in the ocean near the English town of Torbay suddenly began screaming and ran from the surf with severely lacerated feet. Was it a great white shark, a sea serpent, an aquatic Jack the Ripper, or a secret weapon that a military agency was testing offshore?

The British Coast Guard and police evacuated the beach, posted warning signs, summoned air ambulances to transport the victims, and set out grimly in search of a would-be killer. And there the story ended, for the officers soon identified the menace as ordinary razor clams buried in the sand. The combination of a low tide and a hot day had prompted bathers to wade out farther than usual, and they had simply stepped on broken clamshells. The wire services bleeped once, and the incident was forgotten. Yet this story would appear to be newsworthy by the usual criteria. Although nobody died, there was a show of blood, and screaming children were involved. The injuries were sudden, mysterious, and unprecedented. But either the local authorities handled the media exceptionally well, or else the general public simply did not find the story that interesting.

Health scares that involve death may persist longer than others, but not even that rule is absolute. In 1999 and 2000, three women in California died from a previously unknown arenavirus infection, which turned out to be closely related to a dreaded African hemorrhagic fever called Lassa fever and an equally deadly South American disease called Machupo. The wild rodents that serve as a reservoir for arenaviruses in California are common, and the mode of transmission to those three unrelated victims was never determined, or at least never publicized. Yet that health scare, too, fizzled almost immediately. In other words, as a general rule, there is no general rule.

HOW A HEALTH SCARE ENDS

Most health scares eventually end, but not always by fizzling. For example, the 2003 outbreak of severe acute respiratory syndrome (SARS) in Asia caused a well-deserved worldwide health scare. The outbreak ended in 2004, with nearly 10 percent of its victims dead; but although the disease appears to be gone, a reservoir of infected animals may still exist. The outbreak probably ended because an intensive and well-coordinated public health response brought it under control, but there is no way to be certain of its present status until or unless it strikes again.

The 2001 anthrax mailing was another major health scare that ended quickly but did not fizzle. It ended because the perpetrator(s) apparently achieved the intended objective and decided to stop. Inhalation anthrax and domestic terrorism both remain as dangerous as ever, given the opportunity for exposure. A third example of a health scare that ended abruptly involves the drug thalidomide, which caused birth defects in thousands of children between 1957 and 1961 before health agencies recognized the problem and immediately banned the drug for use by pregnant women.

SCARES THAT FAIL TO SCARE

As we said, the 2009 H1N1 pandemic was an example of a short-lived health scare, but there have been even less successful ones. From an astronomer's viewpoint, the 1973 arrival of Comet Kohoutek was anything but a fizzle. As comets go, it was a fine one, yet the general public came to regard it as the celestial equivalent of the Edsel. The news media had predicted that it would be the most spectacular comet in all of human history, a mind-blowing New Age avatar, at least 25 times brighter than the best sightings of Halley's Comet. Fringe commentators in 1973 went even further, predicting worldwide catastrophes, political upheaval, and disease epidemics in Kohoutek's wake. It met all the criteria for a health scare, except for the fact that hardly anyone believed it.

Why disease epidemics? The prevailing pseudoscience in 1973 held that a comet's tail is full of drifting alien microorganisms, as evidenced by the fact that the Bible and other sacred texts reported major plagues following the appearance of comets in the heavens. Comets, among other things, were reported in the Middle Ages at the time of the bubonic plague epidemic now known as the Black Death. Yet Comet Kohoutek came and went, unattended by any unusual disasters, biological or otherwise. The comet itself was barely visible with the naked eye, on a clear night, for those who knew just where to look. Yes, there was a stock market crash in 1973–1974, and several places had floods, and let us not forget Watergate. But something happens every year.

SCARES OTHER THAN HEALTH SCARES

Y2K was a scare, and it certainly fizzled, but it seems inappropriate to call it a health scare. With self-designated experts predicting that technology and crops would fail, that airplanes would fall from the sky, and that civilization as we know it would cease to exist, it would have been superfluous to claim that Y2K might also make people sick. But scaremongers abhor a vacuum, and by 2010, the Large Hadron Collider (LHC), the impending 2012 Apocalypse, and the Apophis asteroid had long since replaced Y2K as popular sources of quasi-millennial terror. These are not health scares either, nor (on the basis of available facts) are they worth worrying about. The LHC is unlikely to create black holes that will swallow our planet, and if it does, no one will be left to assess the health impact anyway. Nor is there reason to believe that the ancient Mayans knew more about astronomy than we do; nor does Apophis appear likely to hit the Earth.

MORE TERMS

This book has a large glossary, but a few common terms may require advance warning. A *threat* is something that can harm human beings or their goods or environment. A *hazard* is similar to a threat, only less. Threats and hazards may be further designated as biological, chemical, radiological, sociological, or whatever, depending on their source (not their

target). *Risk* is a measure of the expected loss resulting from a given threat or hazard, based on how severe the loss might be and how likely it is to occur.

Almost any imaginable action or object has some degree of associated risk, and the science of *risk management* seeks to identify, analyze, and minimize risk exposure. *Risk compression* refers to the frequent human tendency to overestimate rare risks and to underestimate common ones. For example, surveys of military personnel stationed in the Middle East during the first Gulf War showed that many of them feared venomous snakes and scorpions more than they feared the enemy's weapons, although the latter accounted for many more casualties.

The western world of the twenty-first century has often been called *a risk society*—that is, a society preoccupied with its own future safety, or more specifically with the analysis of risks that result from modernization. Governments that take this policy too far may become overly restrictive "nanny states," whereas those who fail to take it far enough may be accused of neglecting public health.

Another term that appears frequently in the risk literature is the *precautionary principle*. According to this guideline, it is often necessary for a regulatory agency to take immediate action without waiting for absolute proof. For example, if preliminary evidence suggests that a given chemical is harmful, the precautionary principle holds that the chemical should be banned as a temporary precaution while the parties slug it out in court. Depending on the outcome, the ban may become permanent. Even if further study exonerates the chemical, however, history shows that public opinion may outweigh the facts. Inevitably, the precautionary principle has led to some expensive and controversial mistakes, and some opponents interpret it to mean that the smallest risk outweighs even the greatest benefit.

The book presents 50 examples of recent and not-so-recent health scares, divided for convenience into seven categories:

- Medical interventions, such as vaccines and drugs.
- Infectious diseases or specific disease outbreaks.
- Food scares and recalls.
- Chemical additives in foods and beverages.
- Other potential biological hazards, such as spiders.
- Other chemical and radiological exposures, such as pesticides.
- Actions and reactions, such as lifestyle choices.

NOTES

1. J. R. Callahan, *Biological Hazards* (Oryx Press, 2002).
2. J. R. Callahan, *Emerging Biological Threats* (ABC-CLIO, 2009).

REFERENCES AND RECOMMENDED READING

Atkinson, H. G. "Internet Hosts Rumors and Hoaxes Galore." *Health News*, Vol. 7, 2001, p. 5.

Baum, A. "Stress, Intrusive Imagery, and Chronic Distress." *Health Psychology*, Vol. 9, 1990, pp. 653–675.

Brierley, S. "We're All Losing Faith in the Appliance of Science." *Marketing Week*, 18 July 2002.

Calman, K. "Beyond the 'Nanny State': Stewardship and Public Health." *Public Health*, Vol. 123, 2009, pp. e6–e10.
Collier, N., et al. "BioCaster: Detecting Public Health Rumors with a Web-Based Text Mining System." *Bioinformatics*, Vol. 24, 2008, pp. 2940–2941.
Colman, E. "Dinitrophenol and Obesity: An Early Twentieth-Century Regulatory Dilemma." *Regulatory Toxicology and Pharmacology*, Vol. 48, 2007, pp. 115–117.
Daley, J. "Overhyped Health Headlines Revealed." *Popular Science*, August 2009.
Ferriman, A. "An End to Health Scares?" *British Medical Journal*, Vol. 319, 1999, p. 716.
Filipkowski, K. B., et al. "Do Healthy People Worry? Modern Health Worries, Subjective Health Complaints, Perceived Health, and Health Care Utilization." *International Journal of Behavioral Medicine*, 9 September 2009.
Grace, K. M. "The Myth-Buster." *Alberta Report*, 18 December 2000.
Grant, T. 2007. *Health Matters*. Hoboken: John Wiley.
Hansen, S. F., et al. "Categorizing Mistaken False Positives in Regulation of Human and Environmental Health." *Risk Analysis*, Vol. 27, 2007, pp. 255–269.
Harteveldt, R. "Nurses Pay the Price for Media Health Scares." *Nursing Times*, Vol. 102, 2006, p. 14.
Haynes, S. "Health Scares: Unfair on the Public and on Health Professionals." *Professional Care of Mother and Child*, Vol. 10, 2000, pp. 30–31.
Hoffer, Eric. 1951. *The True Believer: Thoughts on the Nature of Mass Movements*. New York: Harper & Row.
Jochelson, K. "Nanny or Steward? The Role of Government in Public Health." *Public Health*, Vol. 120, 2006, pp. 1149–1155.
Johansson-Stenman, O. "Mad Cows, Terrorism and Junk Food: Should Public Policy Reflect Perceived or Objective Risks?" *Journal of Health Economics*, Vol. 27, 2008, pp. 234–248.
Kennedy, D. "Bathers Injured by Plague of Razor-Sharp Molluscs." *The Times*, 10 August 1998.
Killick, S. "Don't Be Scared." *Audit Unit News*, Vol. 1, 1996, p. 1.
Krimsky, S. "Risk Communication in the Internet Age: The Rise of Disorganized Skepticism." *Environmental Hazards*, Vol. 7, 2007, pp. 157–164.
Lieberman, A. J., and S. C. Kwon. "Facts Versus Fears: A Review of the Greatest Unfounded Health Scares of Recent Times." *American Council on Science and Health*, September 2004.
Martin, D. "Wash Your Hands Immediately After Reading This Story." *New York Times*, 17 August 1997.
Mayo, D. G., and R. D. Hollander. 1994. *Acceptable Evidence: Science and Values in Risk Management*. New York: Oxford University Press.
Miller, M. L. "Is Drycleaning the Next Big Health Scare?" *American Drycleaner*, June 1999.
Neth, M. "Danger in the Daily Diet." *Stars and Stripes*, 23 April 1982.
"The Price of Prudence." *The Economist*, 24 January 2004.
Ross, J. F. "Risk: Where do the Real Dangers Lie?" *Smithsonian*, November 1995.
Schmidt, C. W. "Communication Gap: The Disconnect between What Scientists Say and What the Public Hears." *Environmental Health Perspectives*, 1 December 2009.
Skenazy, L. "Mothering as a Spectator Sport." *Newsweek*, 7 May 2009.
Smith, D. F. "Food Panics in History: Corned Beef, Typhoid, and 'Risk Society.' " *Journal of Epidemiology and Community Health*, Vol. 61, 2007, pp. 566–570.
Spake, A. "Confusion in Spades: The Anthrax Scares Reveal a Public Health System in Disarray." *U.S. News and World Report*, Vol. 131, 2001, pp. 42–48.
Spinks, J. "Positive Practice: Another Scare Story? Don't Panic." *GP*, 14 January 2002.

Stocking, S. H. and L. W. Holstein. "Manufacturing Doubt: Journalists' Roles and the Construction of Ignorance in a Scientific Controversy." *Public Understanding of Science,* Vol. 9(1), 2009, pp. 23–42.

Ticktin, M. "Pills, Panics, Precautions." *Nursing Times,* Vol. 95, 1999, pp. 55–56.

Weinhouse, B. "The Truth Behind Health-Scare Stories." *Glamour,* August 1992.

Whelan, E. M. "Stop Banning Products at the Drop of a Rat." *Insight on the News,* 12 December 1994.

Whelan, E. M. "The Top Ten Unfounded Health Scares of the Year." *Medscape Journal of Medicine,* Vol. 10, 2008, p. 51.

CONTENTS

Part One

Medical Interventions

Figure 1 An 1802 cartoon that illustrates contemporary fears of vaccination. (*Source:* United States Library of Congress.)