The Illusion of Certainty: Health Benefits and Risks

Erik Rifkin, Edward Bouwer
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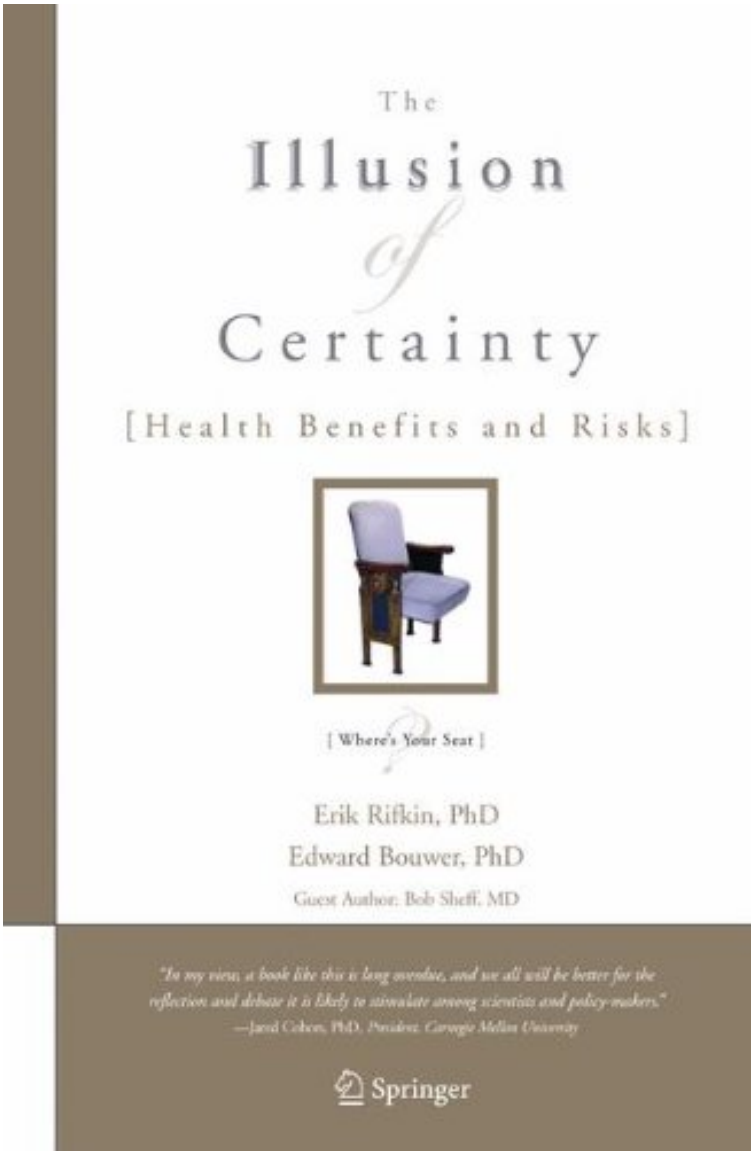

#2369223 in Books Rifkin Erik Bouwer Edward 2007-09-14 2007-09-14Original language:EnglishPDF # 1 9.25 x .60 x 6.10l, .82 #File Name: 0387751653244 pagesThe Illusion of Certainty Health Benefits and Risks | File size: 66.Mb

Erik Rifkin, Edward Bouwer : The Illusion of Certainty: Health Benefits and Risks before purchasing it in order to gage whether or not it would be worth my time, and all praised The Illusion of Certainty: Health Benefits and Risks:

3 of 3 people found the following review helpful. Anyone who is ill should read this book.By Donald I. SiegelI teach science at Syracuse University to large groups of undergrads. They and the general population both, haven't a clue about how to assess certainty or uncertainty in their lives (other than a very small percentage of them). Hence, anyone

with an agenda that involves numbers, can easily scare or convince people to do most anything. I see this all the time in both the scientific and political and medical arenas.This book handles the uncertainty of medical decision based on relative risk or absolute risk, by using a clever graphical approach -- theater seating. How many people in sitting in a 1000 seat theater would have an absolute risk of getting sick under given circumstance?It sounds too easy a way of presentation, right? Maybe hokey to some? Nope-it's great and intuitive, and I will be this approach in my own teaching on environmental risk assessment---by using the Carrier Dome of Syracuse University as my template.I think it is critical that citizens be able to understand rudimentary--VERY rudimentary-- math and statistics because if they don't, you get the exact idiocy you seen in our government and public discourse today.Another wonderful book that people should read is the classic, "How to Lie with Statistics." It's dated, funny, and tells people the questions they should ask of people who throw out statistical numbers at them.1 of 1 people found the following review helpful. Want more clarity in your medical decisions? Read this book!By HandyGuyRifkin and Bouwer have a genius for penetrating and explaining how doctors end up recommending much of what they do.A great companion read to the classic How to Lie with Statistics, Rifkin and Bouwer walk us through how inconclusive data generated in research can be loosely rearranged to provide the illusion of certainty, scientific progress, and medical value. Medical and scientific professionals have their foibles and are only human after all, sometimes shockingly so. But the authors demonstrate how caring and dedicated health practitioners are at risk of becoming believers in unsound, unprovable ideas as a result of poor "scientific method" practiced by colleagues.Very few have bothered to explain this, largely because it is an unacknowledged sacred cow in the profession. What happened this past week (early October, 2011) is an example: the PSA test for men to screen for prostate cancer has now been announced as being worth possibly zero in saving lives. This conclusion came after decades of the test being universally recommended, triggering countless surgeries that have left patients debilitated in various ways (needlessly? we don't know), and long after its inventor had called for doctors to stop using it, because almost all were applying and interpreting it incorrectly.No matter how necessary and urgent the reassessment of the PSA test's value might be, or how much re-thinking it might advance rigorous medical knowledge, do not dream for a moment that the result has been received as "good news" everywhere in the medical profession. On the contrary, legions immediately argued for its unabated use, data or no data. And the PSA test is just one example among hundreds in the constellation of ideas that make up today's medical / scientific belief system.That reference to a "belief system" may seem to some a little disparaging or provocative, but it is meant to distinguish what we "believe" (i.e., what we take at face value without question) from what we "know" (i.e., what we have seen succeed or fail time and again, from data we understand and have really thought through, resulting in experience we apply carefully and consistently because the stakes are high).One thing both doctors and patients share is a desire, in effect, for magic bullets: answers, with absolute certainty, and without ambiguity. Certainty is comforting. Uncertainty is disturbing. In fact, many doctors know which of their patients won't take "I don't know" for an answer; they sometimes resort to sending patients home with completely innocuous prescriptions that are little more than placebos. This satisfies the patient's impossible belief that their doctor can, and should, know everything (and, surprisingly, the medical complaints often do disappear afterward). But doctors too are human and susceptible. It is tempting to believe information that teases a similar impulse: a new technique or medicine that seems to spring from rigorous knowledge, that tells us we are getting somewhere, and fills an ambiguous gap in our repertoire of answers.The bigger background of medical knowledge strongly highlights what Rifkin and Bouwer have put their finger on. We actually know relatively little about many fundamental life processes. We don't even know how food is converted into living tissue. And pharmaceutical companies just don't talk about their most astonishing secret: of patients who take a medication designed, approved, and prescribed for exactly their condition, up to 40% get no results from the drug. And the drug designers do NOT know why. Although not covered in this book, these and many more examples of the limits to our knowledge are hardly unusual. What is interesting is the urge to ignore that, and how easy it is to elevate insignificant data into "answers" that overlook risk.You may not have a medical decision to make (for yourself or another patient) right now, but the odds are someday you will. Arm yourself ahead of time with a little foundational knowledge about what it REALLY means when you hear medical claims like "cuts second heart attacks by 50%." One side benefit of this read is that you'll gain a much better understanding of the kinds of questions you should be asking before making such decisions, and why.There are very good reasons why more and more patients involve themselves in healthcare decisions today. This book is an enormous help in understanding why this is a healthy, and necessary, trend.1 of 1 people found the following review helpful. "Just the facts, mam.By Patrick F.Helps the reader become aware that far too many of today's "scientific" opinions are based on dogma, not data.

This book provides an understanding and appreciation of the risk assessment process and the ability to objectively interpret health risk values. Included is an explanation of the uncertainty inherent in the assessment of risks as well as an explanation of how the communication and characterization of risks can dramatically alter the perception of those risks. Case studies illustrate the strengths and limitations of characterizing certain risks. Using the accepted risk assessment paradigm proposed by the National Research Council, these case studies illustrate which risk values have merit and why other assessments fail to meet basic criteria.

From the reviews: "The aim is principally to assist the public in comprehending and interpreting health benefit and risk information, and provide them with the basic methods that will allow them to make their own judgements. A significant feature of the book is the introduction of a new way of assisting the reader to conceptualise the absolute risk or benefit to an individual. It could be used as a reference book by a member of the public ." (Roy Mooney, SCOPE, June, 2008)From the PublisherThis book peels away the "veneer of certainty" which many of us attach to health risk and benefit information given to us in our daily lives. It was written and designed primarily to assist the public in comprehending and interpreting the uncertainty associated with the overwhelming amount of information on medical and environmental health risks. The book uses unique, visual presentations and case studies to explain the benefits of medical screening tests (e.g., mammography, prostate and colorectal cancer screening, cholesterol screening) and drugs (e.g., statins, Vioxx) and the risks associated with exposure to environmental contaminants (e.g., lead, dioxin, radon). This book will help patients and their families get more involved in making medical decisions, and citizens face critical questions about the environment. By putting the complexities of risk analysis in terms the general public can relate to, the authors are empowering people to make well-informed decisions.From the Back CoverThe Illusion of Certainty: Health Benefits and Risks peels away the "veneer of certainty" which many of us attach to health risk and benefit information given to us in our daily lives.It was written and designed primarily to assist the public in comprehending and interpreting the uncertaintyassociated with the overwhelming amount of information onmedical and environmental health risks.The bookuses unique, visual presentations and case studiesto explain the benefits of medical screening tests (e.g., mammography, prostate and colorectal cancer screening, cholesterolscreening)and drugs (e.g., statins, Vioxx)and the risks associated with exposure to environmental contaminants (e.g., lead, dioxin, radon). This book will help patients and their families get more involved in making medical decisions, and citizens face critical questions about the environment. By putting the complexities of risk analysis in terms the general public can relate to, the authors are empowering people to make well-informed decisions. About the Authors: Erik Rifkinis the president of an environmental consulting firm that specializes in the characterizationof ecological and human health risks from exposure to soil, water, air and sediments. His firm provides assistance and guidance to federal and state regulatory agencies and corporations regarding the nature and magnitude of environmental risks and potential remediation strategies.Dr. Rifkin'sbroad experience includes thecommunication ofhealth risks and benefits to groups concerned with these issues. Edward J. Bouweris Professor of Environmental Engineering at Johns Hopkins University in Baltimore, Maryland. He has extensive experience with water and soil pollution and treatment. His research provides guidance on defining and managing environmental risks and how to interpret human and ecological health risk data. Dr. Bouwer has served on several National Research Council committees that provide guidance on managing human and ecological risk Guest Author Bob Sheff, MD, received his medical training as a radiologist at UCLA and Johns Hopkins Medical Center. He spent his career praticing medicine and running one of the largest medical managed-care systems in the U.S. Now semi-retired, he devotes his time to helping non-profit organizations and individual people address their medical concerns. He lives in Columbia, Maryland. Written for: Undergraduate, graduate, medical and nursing students, engineers, government advisory agencies, research scientists, lawyers, politicians and anyone interested in risk analysis and the interpretation of risk values.