

# What's so special about a systematic review? - preamble

It was the best of times, it was  
the worst of times, it was the age of  
wisdom, it was the age of  
foolishness, it was the epoch of  
belief, it was the epoch of  
incredulity, it was the season of  
Light, it was the season of Darkness,  
it was the spring of hope, it was the  
winter of despair, we had  
everything before us, we ...

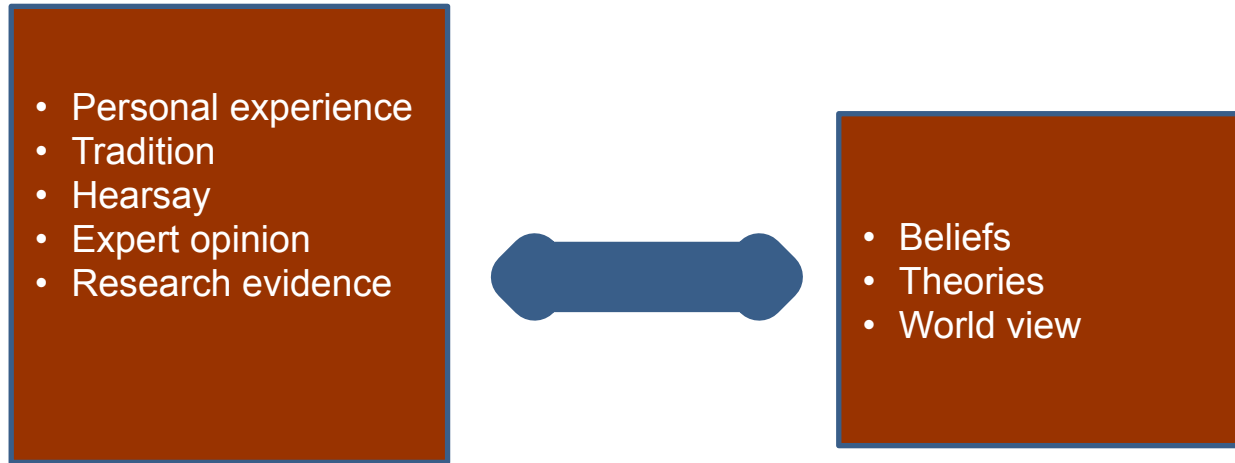
Charles Dickens, A Tale of Two Cities, 1859

# Fake news, alternative facts and falsehoods



**<http://edition.cnn.com/videos/politics/2017/01/22/kellyanne-conway-alternative-fact-meet-the-press-sot.cnn>**

# How do we know what we know?



What we receive through  
our senses

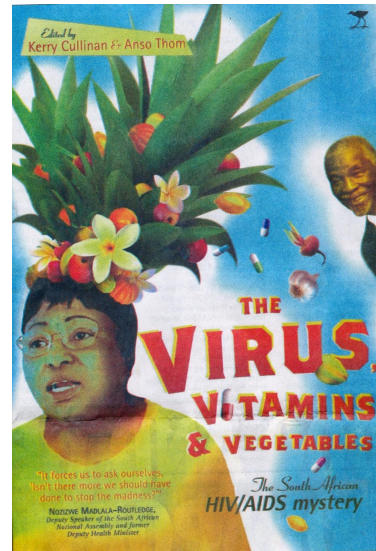
What we believe to be true

# Does this treatment work?

“If a person a) is poorly, b) receives treatment intended to make him better, and c) gets better, no power of reasoning known to medical science can convince him that it may not have been the treatment that restored his health.”

- Sir Peter Medawar, The Art of the Soluble, 1967

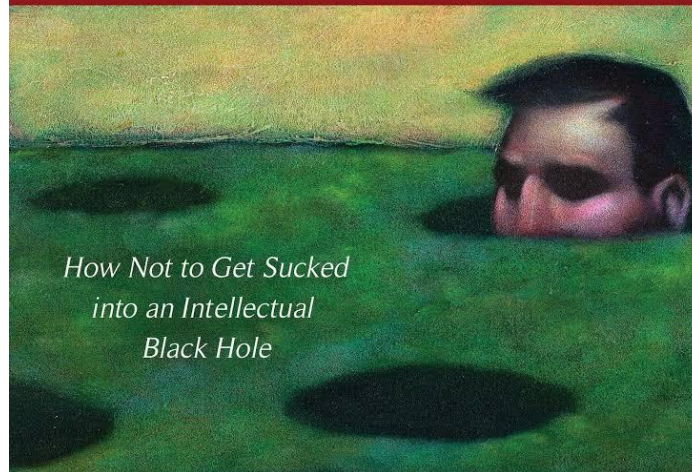
# Vitamins as treatment for HIV/AIDS



"Shall I repeat garlic, shall I talk about beetroot, shall I talk about lemon... these delay the development of HIV to Aids-defining conditions, and that's the truth"

Minister Manto  
Tshabalala-Msimang

# BELIEVING BULLSHIT



*How Not to Get Sucked  
into an Intellectual  
Black Hole*

## STEPHEN LAW

# Times have changed

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South African National Department of Health  
Brief Report of Rapid Review  
Component: COVID-19

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**TITLE: CHLOROQUINE AND HYDROXYCHLOROQUINE FOR TREATMENT OF COVID-19: EVIDENCE REVIEW OF CLINICAL BENEFITS AND HARMS**

Tamara Kredo et al

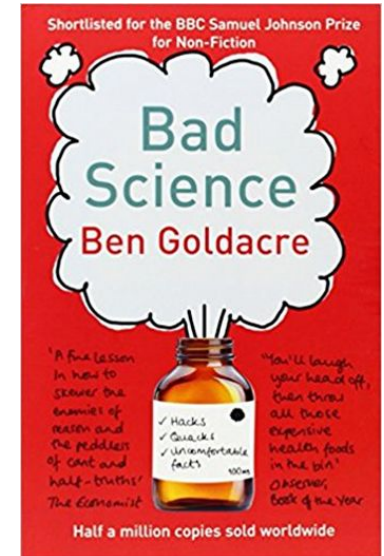
<http://www.health.gov.za/index.php/national-essential-medicine-list-committee-nemlc/category/633-covid-19-rapid-reviews>



# Research evidence matters

## BUT....

- finding relevant evidence can be challenging
- not all evidence is created equal
- there is a need for rigour in evaluating evidence



# Danger of the single study



## SEX and SOX: New Study Shows Couples Who Wear Socks During Sex Are More Satisfied

According to a new study coming out of the Netherlands, couples who wear socks during sex have a higher chance of orgasming. Couples who do not wear socks when they get intimate only have a 50% chance. Researchers say it's because socks keep the feet warm, allowing women to relax more.

# Studies may be poorly designed

## Hollywood Flashback: When a Dire Message in 1978's 'Scared Straight' Led to Oscar

11:30 AM PST 11/9/2017 by Bill Higgins



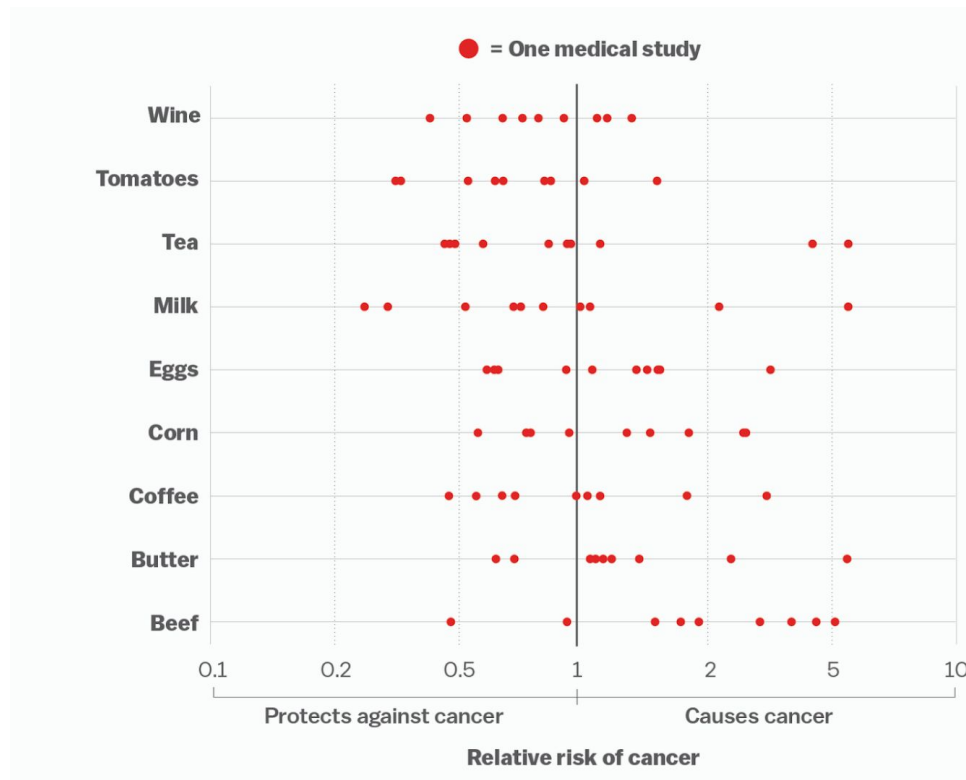
Golden West Television/Courtesy Everett Collection

An inmate at Rahway State Prison lecturing juvenile delinquents in Scared Straight.

**“Scared straight” cut the rate of reoffending by 50%**

# 'Cherry picking' studies

Does this food cause cancer?



# Confirmation Bias

The tendency to search for, interpret, favour, recall and disseminate information in a way that affirms our prior beliefs



What you see and share

# Truth is best pursued by evaluating evidence



The trustworthiness of evidence depends on the extent to which it was determined by credible processes