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

How do we know what we know?

- Personal experience
- Tradition
- Hearsay
- Expert opinion
- Research evidence

What we receive through our senses

What we believe to be true

- Beliefs
- Theories
- World view
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

Tamara Kredo et al

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

_I SHOULD BUY SOME SOCKS_

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 orgasm. 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.
"Scared straight” cut the rate of reoffending by 50%
‘Cherry picking’ studies

Does this food cause cancer?

Schoenfeld and Ioannides, 2012
Confirmation Bias

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

Existing Beliefs

Facts & Evidence

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