

Confirmation bias

“The tendency to search for, interpret, favour, or recall information in a way that confirms or supports one's prior beliefs or values”.

Problem 3:

”You can prove anything with Stats...”

Assess your sources!!!!

- Is it addressing your “questions”?
- Is it listing its sources?
(Reputable journal? Peer reviewed?)
- Is the source “evidence based”?
- Does it have a “track record”? (e.g. OBR vs. Treasury)
- Medical research... (Large? Publicly funded?)
- Matching (or contradicting!) other sources?

Suggested sources

- Evidentlycochrane.net
- Patient.info
- Nice.org.uk
- lhealthfacts.ie
- Nhs.uk
- Ons.gov.uk
- lfs.org.uk
- Gapminder.org
- BBC.co.uk/news/realitycheck
- Fullfact.org
- Channel4.com/news/factcheck
- Which.co.uk
- More or less (Radio 4)

Question #2 OUT OF HOW MANY?

Bowel cancer will strike about
43,000 people in Britain

43,000 out of 66,000,000

43,000 \div 66,000,000 \times 10,000

6.4 out of 10,000

Question #2 OUT OF HOW MANY?

1 in 17 American women will develop
lung cancer in their lifetime

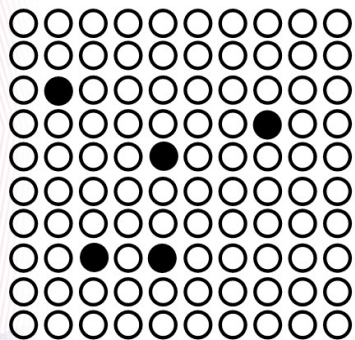
$$\begin{array}{ccccccc} 1 & \text{in} & 17 & & & & \\ \downarrow & & \downarrow & & & & \\ 1 & \div & 17 & \times & 10,000 & & \\ \hline & = & 588 & \text{out of} & 10,000 & & \end{array}$$

My website has a "1 in xx"
conversion table, e.g...

Out of 1000			
1	in	1	1000
1	in	2	500
1	in	7	143
1	in	25	40
1	in	250	4

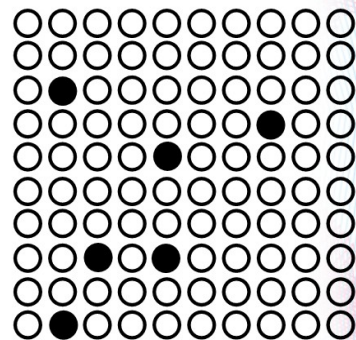
Question #7

COMPARED TO WHAT? (doing nothing)



Bacon
And
Bowel
Cancer!

“Absolute Risk”:
5% (5/100)



“Relative Risk”:
+20% (i.e. 6/100)

Question #7 (part one)

COMPARED TO WHAT? (other risks)

Selected UK causes of death, 2019 (per 10,000 deaths)

Cancers (excluding Bowel)	2,500
Ischaemic/Heart	1,300
Dementia/Alzheimers	1,100
Flu & Pneumonia	400
BOWEL CANCER	300
Falls (2019)	100
Land Transport Accidents (2019)	25
Smoke, Fire, Flames	3
Air/space Transport Accidents	0.3
Terrorism (average, 1999-2018)	0.1