We're not always certain of our numbers...

SCOTCEN POLL OF POLLS
SHOULD SCOTLAND BE INDEPENDENT?
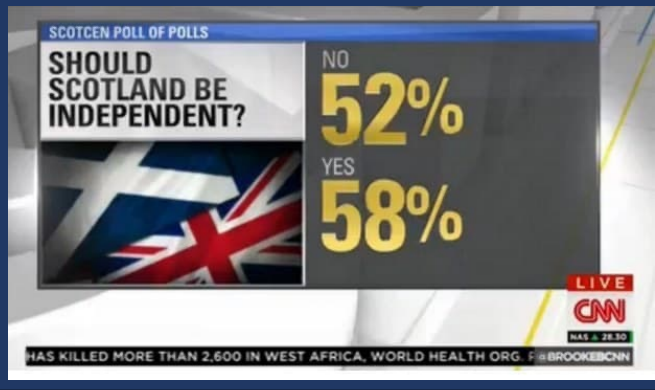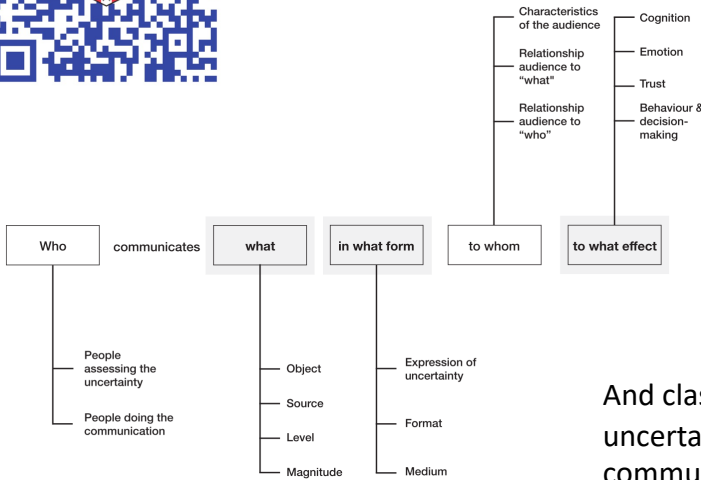NO **52%**
YES **58%**
...HAS KILLED MORE THAN 2,600 IN WEST AFRICA, WORLD HEALTH ORG.

How do our audiences feel about us communicating our uncertainties?

There are so many elements to studying the communication of uncertainty. We started by constructing a framework to think about all the moving parts:

And classifying ways in which uncertainties are often communicated:

Decreasing precision

i.   A full explicit probability distribution
ii.   A summary of a distribution
iii. A rounded number, range or an order-of-magnitude assessment
iv.   A predefined categorisation of uncertainty
v.   A qualifying verbal statement
vi.   A list of possibilities or scenarios
vii. Informally mentioning the existence of uncertainty
viii. No mention of uncertainty
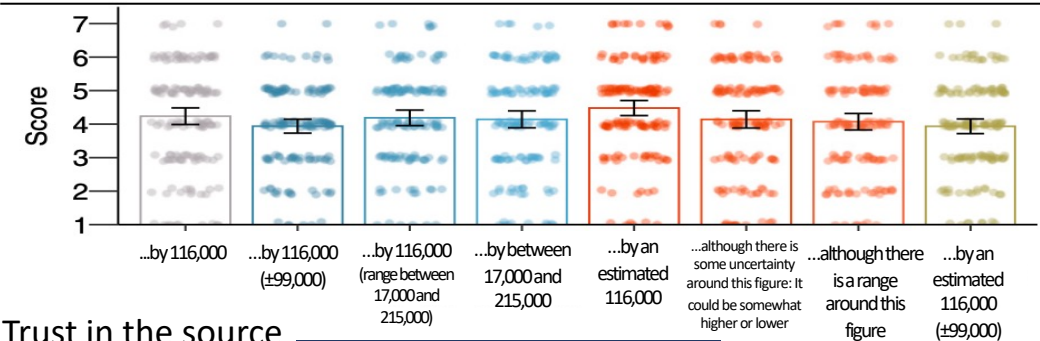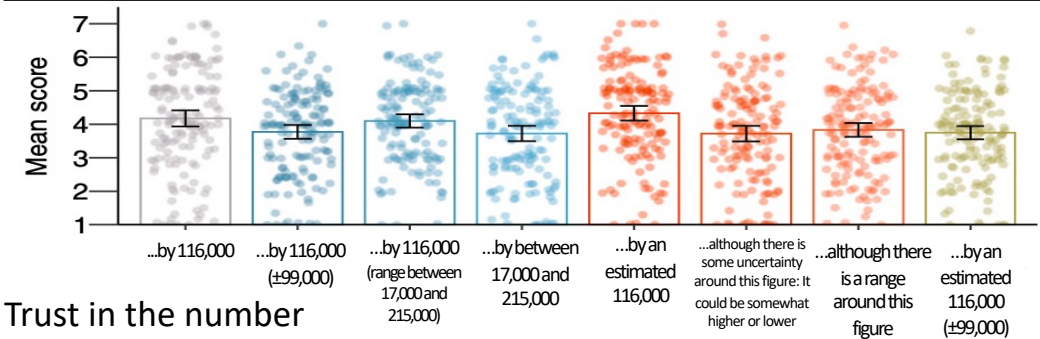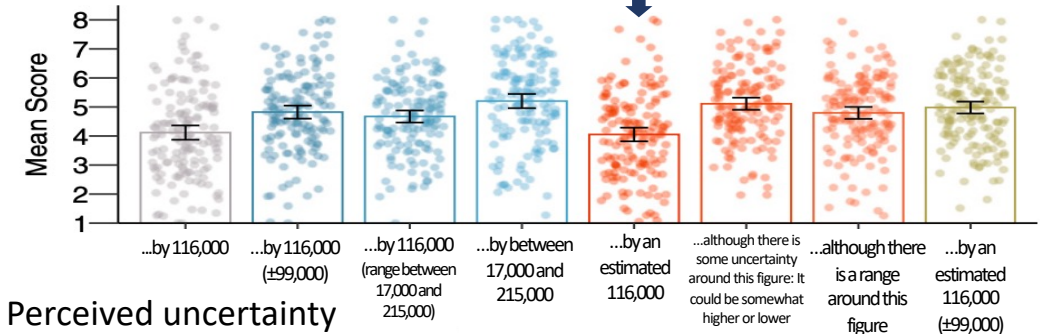ix.   Explicit denial that uncertainty exists

In a series of experiments, we looked at how communicating uncertainty through words and numerical ranges affected people's feelings of the uncertainty and trustworthiness of numbers, and of the communicators/producers of the numbers.

For example, in one experiment we showed different people a variation on the sentence *"Official figures from the first quarter of 2018 show that UK unemployment fell by 116,000 compared with the same period last year."*

Nuffield Foundation

"estimated" alone doesn't communicate uncertainty!

Mean Score

...by 116,000 | ...by 116,000 (±99,000) | ...by 116,000 (range between 17,000 and 215,000) | ...by between 17,000 and 215,000 | ...by an estimated 116,000 | ...although there is some uncertainty around this figure: It could be somewhat higher or lower | ...although there is a range around this figure | ...by an estimated 116,000 (±99,000)

Perceived uncertainty

Mean score

Trust in the number

Score

Trust in the source

None affected trust in the source