## Correlation does not imply causation

## Because...

- A health outcome may be associated with the treatment, but not caused by it
- Observational studies show correlations and suggest possible causes
- To confirm that a treatment is the cause, a clinical trial should be conducted

## Warning signs

```
"...improves / worsens..."

"...increases / decreases..."

"...causes / leads to..."
```

**Causal language** is not appropriate when there is only a correlation. In this case, it is better to speak with less certainty: "...could improve / could worsen..."



- **Be cautious** if you read that something works or doesn't work because it is associated with a benefit or a harm
- Remember that the association of two things does not mean that one is the cause of the other
- Ask yourself if there may be other reasons for an association or correlation







