

# Which kills the most people?

Which one is the biggest killer? Put them in order of the most deaths per year

Respiratory  
infections

Coronary  
heart disease

Lung cancer

Diabetes

Stroke

HIV/AIDS

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# Were you right?

Coronary  
heart disease

Stroke

Respiratory  
infections

Lung cancer

HIV/AIDS

Diabetes

# Which of these are non-communicable diseases

Coronary heart disease ✓

Stroke ✓

Respiratory infections ✗

Lung cancer ✓

HIV/AIDS ✗

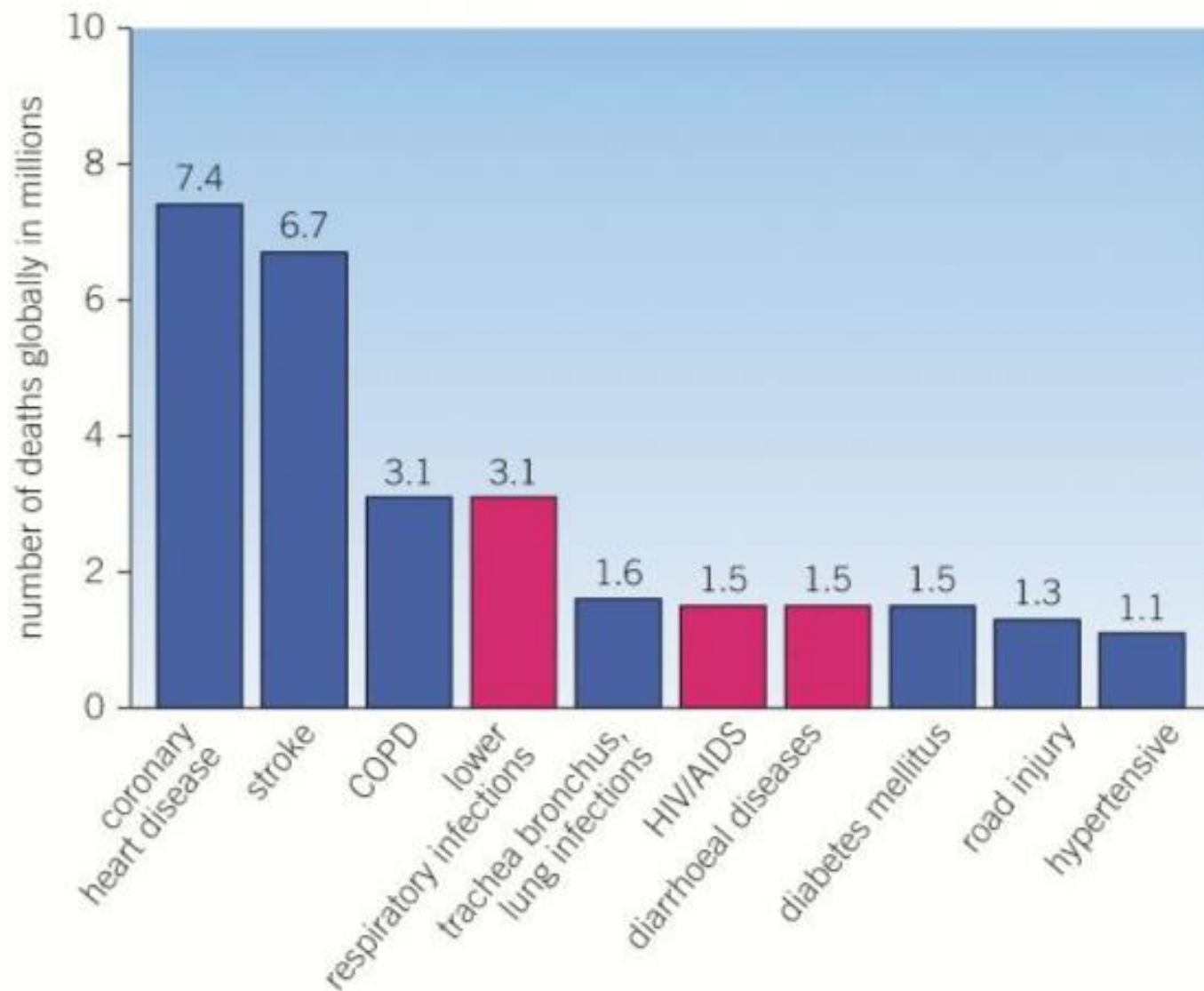
Diabetes ✓

2012

Blue – non  
infectious

Pink – infectious

# The biggest killers



# Lifestyle choices

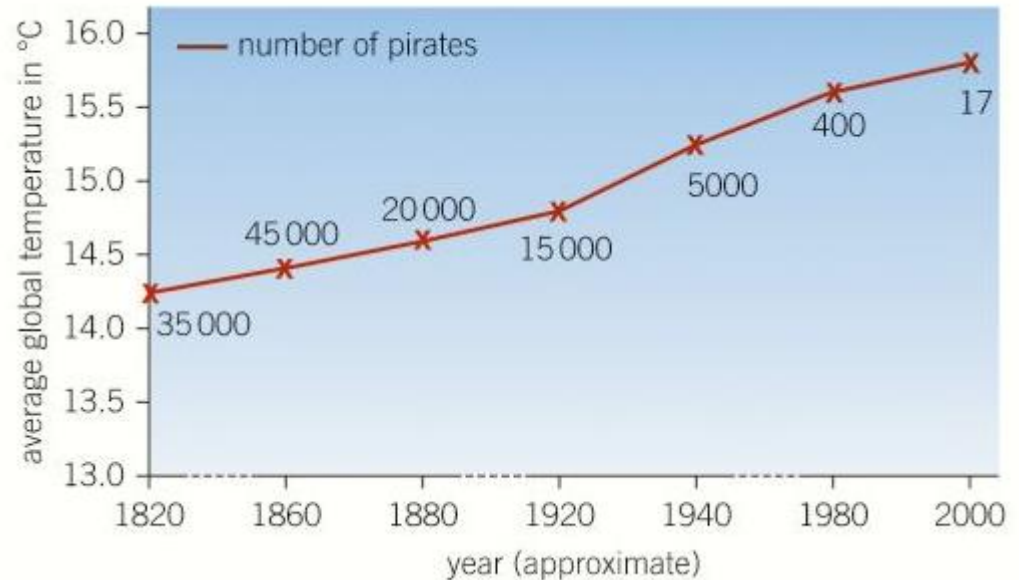
- Our lifestyle choices affect our health
- But they don't all have the same impact
- Decide which has the most impact on our health.

# Line of impact



# Correlation

- Scientists see similarities in the patterns between non-communicable diseases and lifestyle factors.
- This link is called a correlation.
- A correlation does not prove one thing is the cause of another



As the temperature increases, the number of pirates increases.

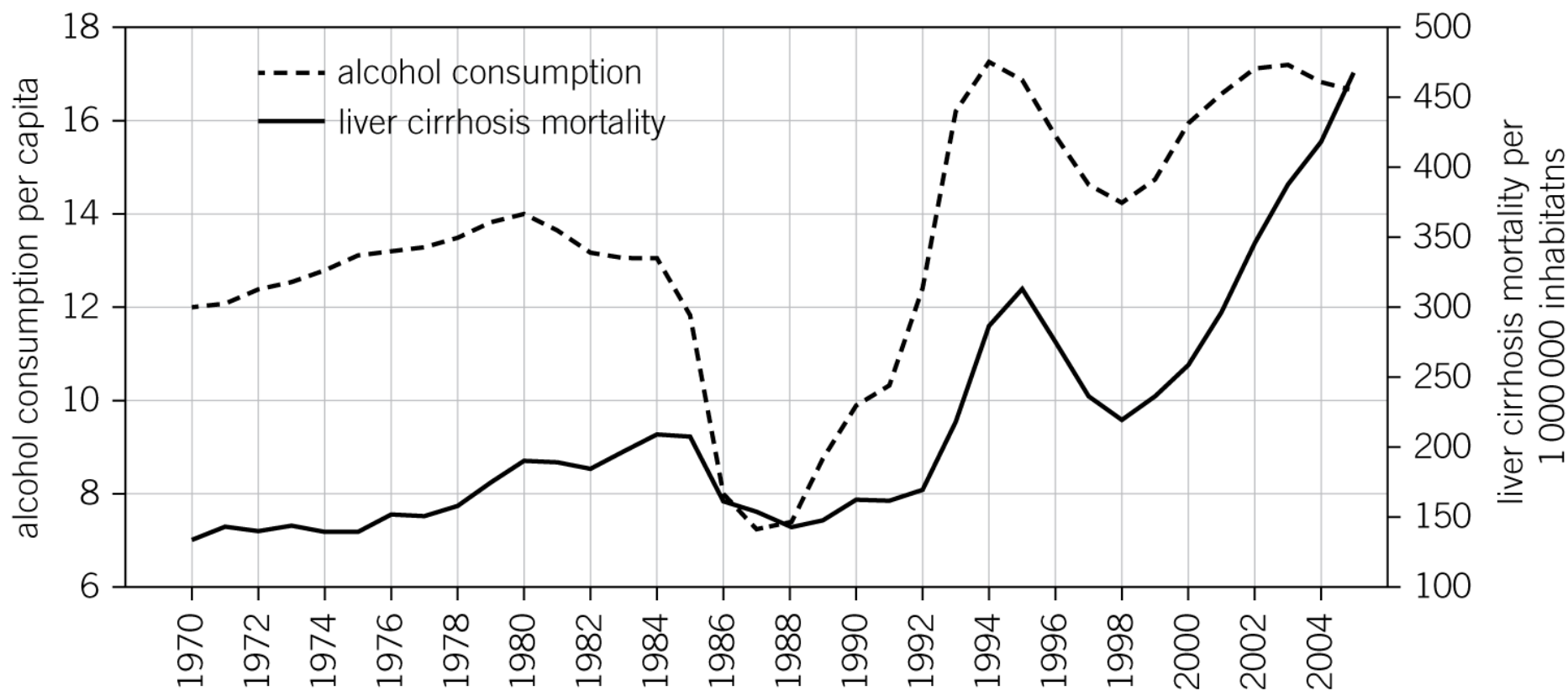
What needs to be done to prove a correlation?



# Causal mechanism

- Scientists research to discover if one factor does affect another.
- A causal mechanism explains how one factor influences another through a biological process.
- If a causal mechanism can be demonstrated, there is a link between the two.
- There is a clear causal link between smoking tobacco and lung cancer... anyone can get lung cancer – but smoking increases your risk

# Describe the data – alcohol and liver disease



# Describe the data – smoking and lung cancer

<b>Year</b>	<b>Percentage of men who smoke</b>	<b>Percentage of smoking-related deaths in middle-aged men</b>
<b>1950</b>	77	15
<b>1955</b>	74	18
<b>1960</b>	74	19
<b>1965</b>	68	20
<b>1970</b>	68	20
<b>1975</b>	62	17
<b>1980</b>	55	16
<b>1985</b>	46	14
<b>1990</b>	39	11
<b>1995</b>	37	8
<b>2000</b>	32	6

# Describe the data – risk factors and diabetes

<b>Year</b>	<b>Number of cases of type 2 diabetes in 55–64 year olds</b>	<b>% of population aged over 18 taking no physical exercise</b>	<b>% of population aged over 55 classed as obese</b>	<b>Average sugar intake per person (kg/year)</b>
<b>1990</b>	4	37	38.5	41
<b>1995</b>	5	35	43	41
<b>2000</b>	10	30	49.5	44
<b>2005</b>	8.5	32	54	44
<b>2010</b>	11	34	55	42