

# ABSOLUTE RISK

is the likelihood of an event occurring under specific conditions

for instance, the chance of a person developing heart disease is based on factors such as:

-  age
-  physical activity
-  sex
-  genetics
-  diet

commonly expressed as:



a 1 in 10 chance of developing heart disease

a 10% chance of developing heart disease

## Relative risks alone do not tell the full story...

If absolute risk is 1 in 10...



50% increase



...risk increases to 2 to 10



If absolute risk is 4 in 10...



50% increase



...risk increases to 6 to 10



# RELATIVE RISK

is the likelihood of an event occurring in a group of people compared to another group with different behaviours, physical conditions or environments

- VS
- meat eater  vegetarian
  - sedentary  physically active people
  - overweight  normal body weight
  - low income  high income



for instance, meat consumption expressed as



an 18% increase in risk of bowel cancer

Absolute risk numbers are needed to understand relative risks!

Example: processed meat and bowel cancer

What does a 18% increased risk of bowel cancer really mean?



estimated lifetime risk of developing bowel cancer



estimated lifetime risk of developing bowel cancer if you eat 50 g/day of processed meat



relative risk increases by 18%



absolute risk is 5.6% + 1% absolute risk = absolute risk is 6.6%