+ 1 Standard deviation = 68%

+ 2 Standard deviation = 95%

+ 3 Standard deviation = 99%

1. Statistics II
- Chapter 7
  - Normal distribution – an approximately equal spread of scores around a mean
  - Statistically significance – the likelihood that the relationship between IV & DV is due to chance. Determined using 95%. CI & statically significance.
  - Mean difference – difference in (group or condition) means. Mean difference of 0= both groups are exactly the same. Mean group 1 – mean group 2 = mean difference

Relative Risk	Odds Ration
Ratio of two probabilities	Ratio of two odds
Probability = the likeliness of an evet in relation to all possible events	Odd= probability that something happens/probability
Calculation: risk for the unexposed	Calculation: odds for the cases, odds for controls
Used in experimental & cohort studies	Used in case control studies
Measure of strength of association and possibility of casual relationship	Can apply even if the sample groups are different sizes
Can be determined in cohort studies and in experimental studies to before and after results are available	Can be determined for all studies -> weak measurement Tend to be reported in case – control studies
RR= exposed outcome/ population = A = unexposed outcome/population = B A/B= risk ratio	Odds ratio = odds for cases/odds for controls Cases - Outcome results (exposed)/outcome results (unexposed) = A Control – Outcome result (exposed)/ outcome results (unexposed) = B A/B = Odds ratio
RR=1 – risk in exposed is equal to risk unexposed (no association or difference) RR> 1- risk in exposed greater than risk in unexposed (positive association) more likely. The risk is ___ higher than exposed group	OR=1 odds in exposed is equal to the odds in unexposed (no association) OR>1 odds in exposed are greater than odds in unexposed (positive association). 13.17 times higher

RR<1 – risk in exposed are <u>less than</u> risk in unexposed (negative association/protective factor. Less likely). The risk must be changed to a percentage (e.g. 0.65/1 = 0.35. 35% less). 35% less than.	OR<1 odds in exposed are less than odds in unexposed. 1-0.7 = 0.3 30% less
Always talk about the exposed group.	Times more likely/less likely. E.g. the odds of developing cervical cancer are 23.4 more times to etc.

- o Clinical Significance
  - ▪ - 0.5 – moderate negative effects
  - ▪ - 0.2 – small negative effect
  - ▪ 0 – no effect
  - ▪ 0.2 – small positive effect
  - ▪ 0.5 – moderate effect
  - ▪ 1 - large effect
- o Risk ratio – chance of something occurring vs not happening to a group of ppl compared to another group. Before something has happened
- o Confidence interval
  - ▪ Where the true value may lie
  - ▪ If CI crosses 1 – true RR could be 1 (eg 0.4, 1.2) suggesting risk in exposed is the same as risk in unexposed. Result is not statistically significant
  - ▪ If CI doesn't cross 1 – true RR in the population could not be 1 (eg 0.6,0.9 or 7,9). There is association between exposure and outcome. Statistically significant.
2. Ethics
- Chapter 10
  - o Ethical Principles
    - ▪ Autonomy: patients and clients are free to determine their own actions. Right to be free from torture and cruel, inhumane and degrading treatment or punishment
    - ▪ Beneficence: acting to benefit human kind. E.g. Fluoride in drinking water
    - ▪ Justice: obligation to treat fairly
    - ▪ Non-maleficence: avoiding or minimizing harm. Physical, psychological, social, economic and legal.
    - ▪ Respect for human dignity: especially for those – mentally unstable, in critical care, unconscious, heavily sedated
    - ▪ Confidentiality: maintence of privileged information, including the right to privacy & anonymity
    - ▪ Veracity: obligation to tell the truth. Comprehensive, accurate and objective information that is clear and understandable is given to participants
  - o Role and Function of Human research ethics committees
    - ▪ Responsible for upholding the principles of ethical research conduct
    - ▪ Required to operate within the national statement for responsible conduct of research guidelines