MUNI
MED

DIAGNOSTIC TEST ACCURACY

		Disease Status		Total
		Present	Absent	
Test Result	Positive	TP	FP	TP + FP
	Negative	FN	TN	TN + FN
	Total	TP + FN	FP + TN	TP + FP + TN + FN

- **Sensitivity** = TP / (TP + FN)
- **Specificity** = TN / (TN + FP)
- **Positive Predictive Value** = TP / (TP + FP)
- **Negative Predictive Value** = TN / (TN + FN)
- **Overall Accuracy** = (TP + TN) / (TP + FP + TN + FN)

TP = True Positive; **FP** = False Positive; **TN** = True Negative; **FN** = False Negative

MEASURES OF ASSOCIATION

		Outcome Status		Total
		Present (Cases)	Absent (Controls)	
Exposure Status	Exposed (Treatment)	A	B	A + B
	Non-exposed (Placebo)	C	D	C + D
	Total	A + C	B + D	A + B + C + D

- **Absolute Risk** = Number of Cases / Number of Cohort Members
- **Absolute Risk of Exposed Group** = A / (A + B)
- **Absolute Risk of Non-exposed Group** = C / (C + D)
- **Risk Ratio (also known as Relative Risk)** = Absolute Risk of Exposed / Absolute Risk of Non-exposed = (A / (A + B)) / (C / (C + D))
- **Odds Ratio** = AD / BC
- **Risk Difference (for observational studies)** = Absolute Risk of Exposed – Absolute Risk of Non-exposed = (A / (A + B)) - (C / (C + D))
- **Risk Difference (for experimental studies)** = Absolute Risk of Non-exposed (control) – Absolute Risk of Exposed (treatment) = (C / (C + D)) - (A / (A + B))
- **Number Needed to Treat (NNT)** = 1 / Risk Difference
- **Population Attributable Risk (PAR)** = Risk Difference * Prevalence of Exposure
- **Population Attributable Fraction (PAF)** = PAR / Total Incidence of Outcome