

Biostatistics: Week 5 [continuous distributions]


Normal Distribution: bell-shaped

► takes X that cannot be counted [X will be a continuous random number]

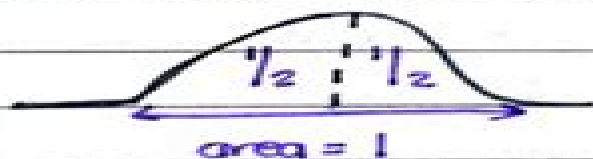
e.g. with discrete: $X=0, X=1, X=2 \dots$

but with continuous: $X=0,52, X=1,27 \dots$

Illustration:

• number over filled and under filled should be similar for chart shape: 
[bell-shaped distribution]

► area under the curve is always equal to 1



► 68,3% of area is between 1 standard deviation $(\mu + \sigma, \mu - \sigma)$



• 95,5% between $\mu + 2\sigma, \mu - 2\sigma$

• 99,7% between $\mu + 3\sigma, \mu - 3\sigma$

Biostatistics Lecture Notes

**Columbia University. School of Public
Health and Administrative
Medicine, John W. Fertig**

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