Population
All herds of horses in the world
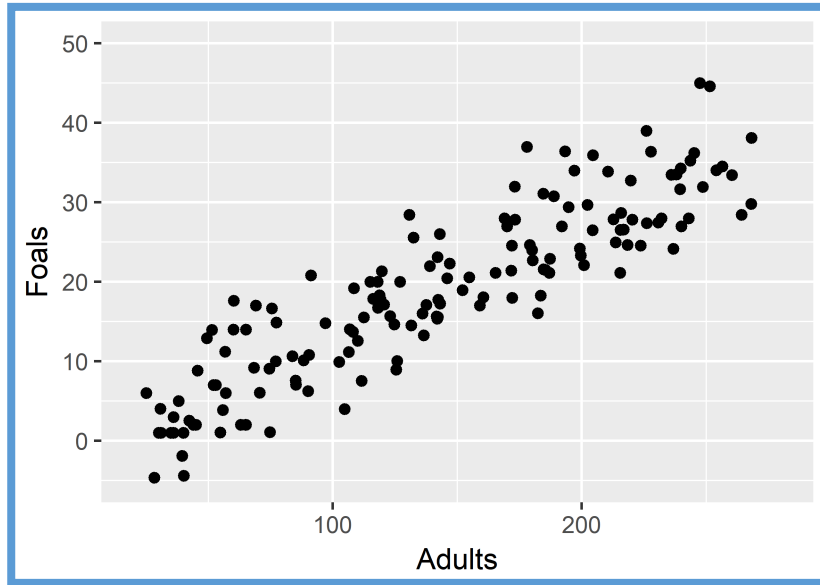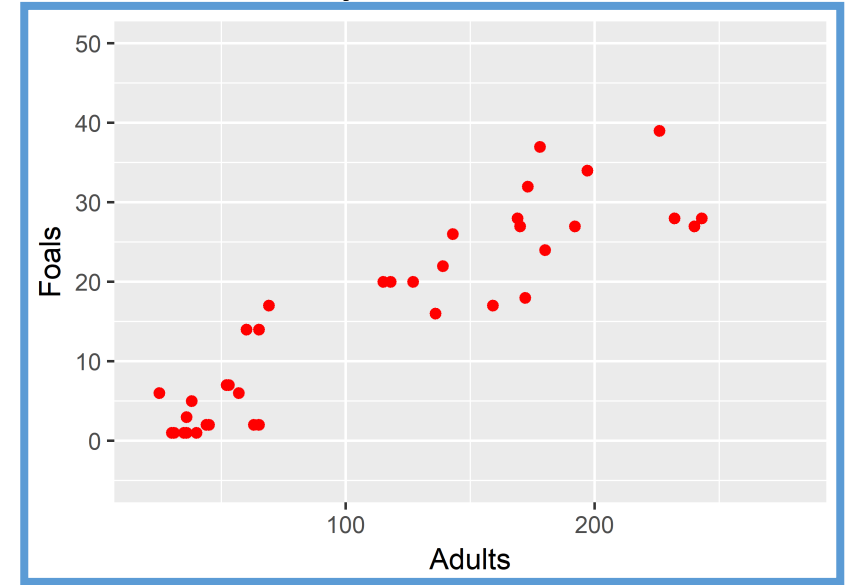
Sample
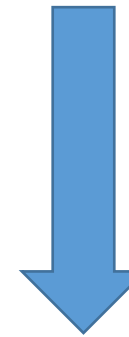A few randomly selected horse herds

Take Sample

Calculate Sample Statistic

Inference

Our Goal: Estimate the Population Parameters

β_0: population intercept
β_1: population slope

$\hat{\beta}_0$: sample intercept
$\hat{\beta}_1$: sample slope