

ASSIGNMENT 26

Results of a randomized comparative experiment to investigate the effect of calcium on blood pressure in African-American men. A treatment group of 10 men received a calcium supplement for 12 weeks, and a control group of 11 men received a placebo during the same period. All subjects had their blood pressure tested before and after the 12-week period.

Construct a model in BUGS to assess if there are differences in the treatment groups. What is the effect of calcium on the blood pressure measurements? Identify possible outliers. Assess the fit of your model.

Reference: Moore, David S., and George P. McCabe (1989). *Introduction to the Practice of Statistics*. Original source: Lyle, Roseann M., et al., "Blood pressure and metabolic effects of calcium supplementation in normotensive white and black men," *JAMA*, 257(1987), pp. 1772-1776,

Authorization: contact authors

Data file: Calcium Datafile.htm

Number of cases: 21

Variable Names:

1. Treatment: Whether subject received calcium or placebo
2. Begin: seated systolic blood pressure before treatment
3. End: seated systolic blood pressure after treatment
4. Decrease: Decrease in blood pressure (Begin - End)