Lab Assignment 3
PB HLTH 250C: Advanced Epidemiologic Methods

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Question One

Using the R code provided, complete Table 1 using the posterior samples of the odds ratios. ***(20 points)***

Table 1: Posterior median and 95% credible intervals for odds ratios from logistic regression model of overweight status on smoking, controlling for age, sex, and education level.

Variable	Vague prior	Informative Prior 1[a]	Informative Prior 2[b]
Current smoker (versus not)			
Age (per year increase)			
Male sex (versus female)			
High school education (versus < high school education)			
Some college (versus < high school education)			
College plus (versus < high school education)			

[a]Prior mean for OR of current smoking = 2, prior variance = 1000.
[b]Prior mean for OR of current smoking = 2, prior variance = 0.08.

Question Two

Using the parameterization for Informative Prior 1, calculate the prior 95% interval for the smoking OR. ***Hint: Calculate the interval on the scale of the log-OR (β) and transform the limits.*** **In** ***one or two sentences*** **describe how this compares to the prior interval for Informative Prior 2 stated in the instructions above.** ***(10 points)***

R code

```
knitr::opts_chunk$set(echo = FALSE,
                      warning = FALSE,
                      message = FALSE)


library(R2jags)
library(coda)
require(foreign)

load("frmgham_recoded_three.Rdata")
```