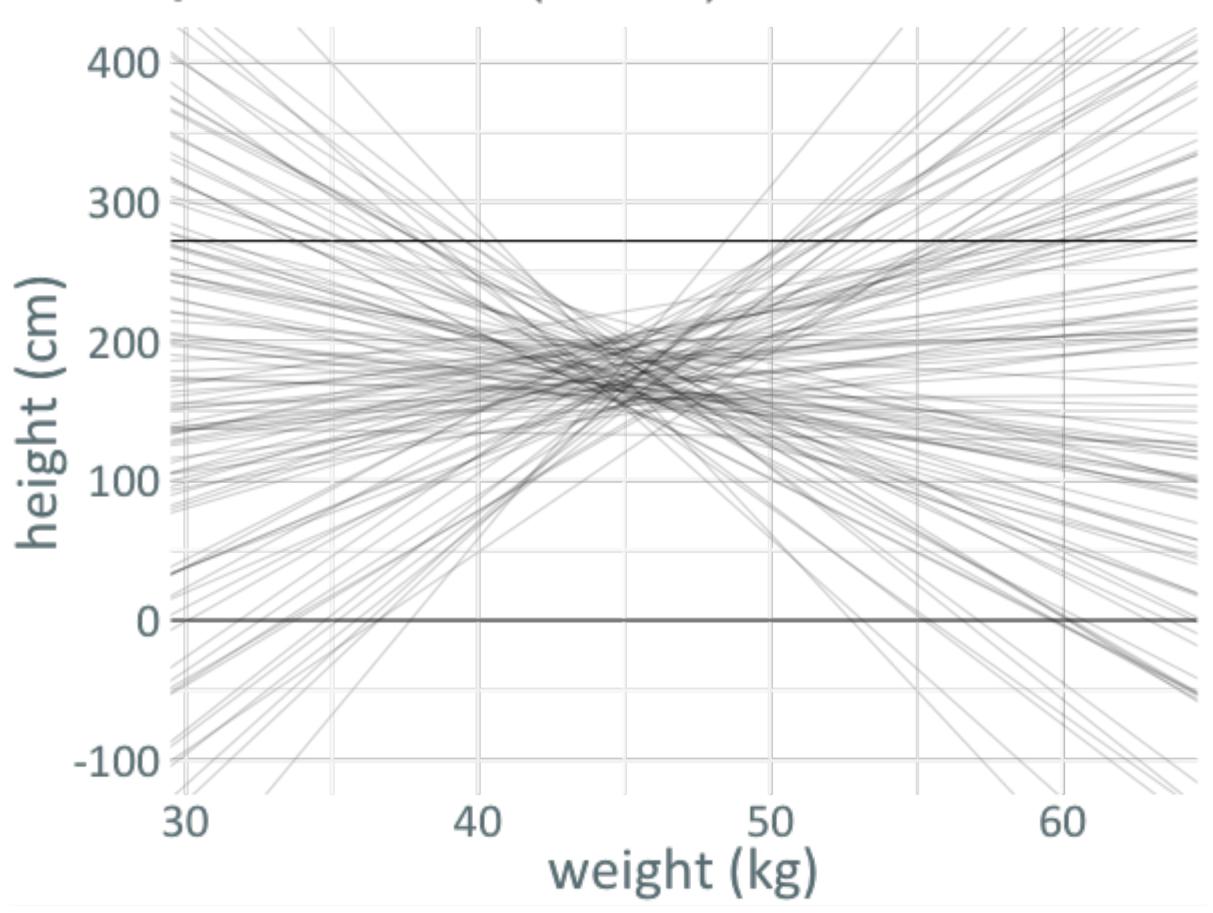


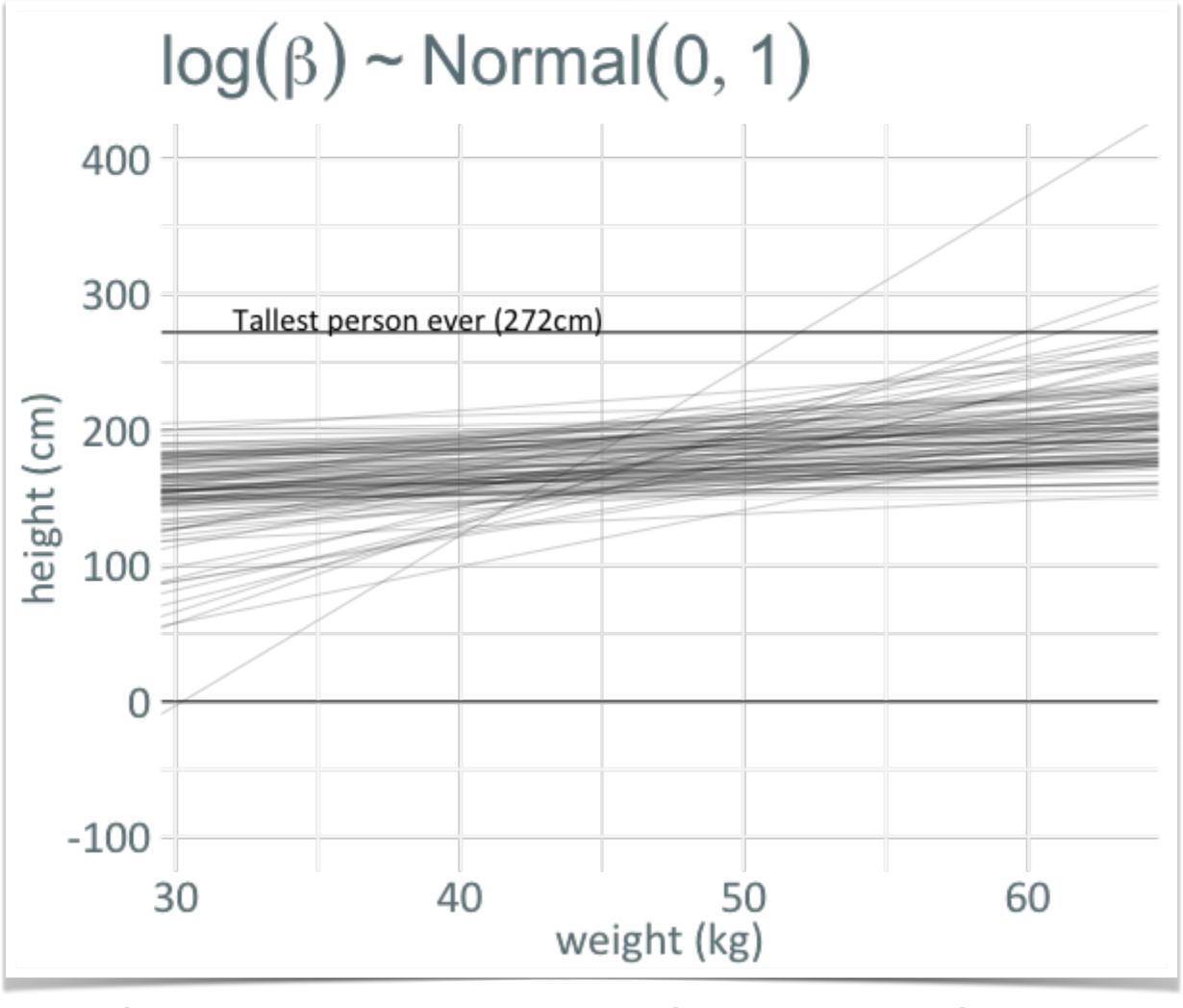


### WIDE VS NARROW PRIOR

#### This is sometimes called a non-informative prior

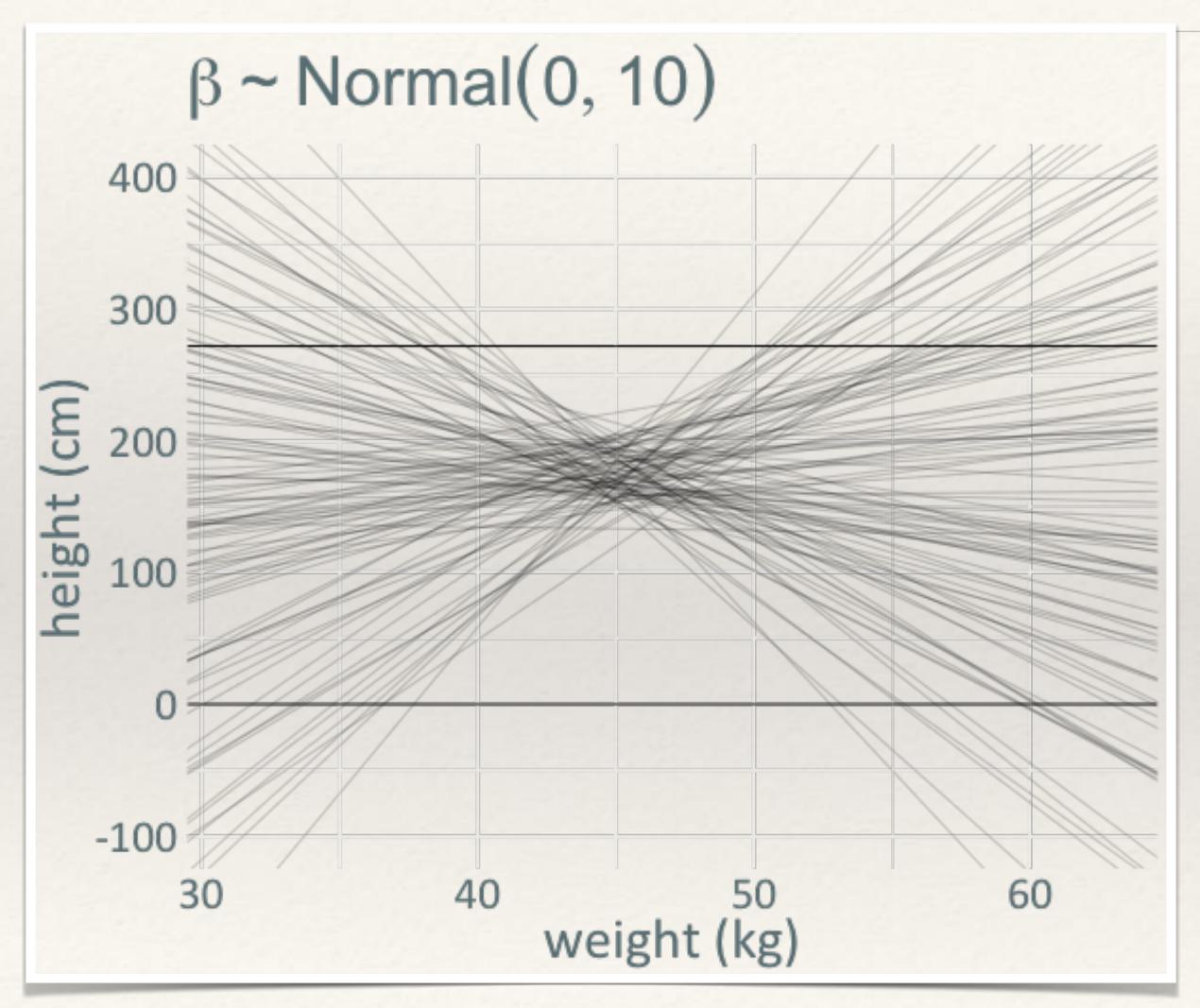
### $\beta \sim Normal(0, 10)$





This prior is informative, but in a good way!

# WIDE VS NARROW PRIOR



 $log(\beta) \sim Normal(0, 1)$ 400 300 Tallest person ever (272cm) height (cm) 200 100 -100 30 40 60 50 weight (kg)

This is sometimes called a non-informative prior

This prior is informative, but in a good way!

## OUR MODEL FOR THE HEIGHT DATA

 $y_i \sim Normal(\mu_i, \sigma)$   $\mu_i = \alpha + \beta x_i$   $\alpha \sim Normal(0, 20)$ 

$$\mu_i = \alpha + \beta x_i$$

 $\beta \sim lognormal(0, 1)$ 

 $\sigma \sim Exponential(1)$ 

