

This work is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike License](https://creativecommons.org/licenses/by-nc-sa/4.0/). Your use of this material constitutes acceptance of that license and the conditions of use of materials on this site.



Copyright 2009, The Johns Hopkins University and John McGready. All rights reserved. Use of these materials permitted only in accordance with license rights granted. Materials provided "AS IS"; no representations or warranties provided. User assumes all responsibility for use, and all liability related thereto, and must independently review all materials for accuracy and efficacy. May contain materials owned by others. User is responsible for obtaining permissions for use from third parties as needed.



JOHNS HOPKINS
BLOOMBERG
SCHOOL *of* PUBLIC HEALTH

Lecture 7b: Practice Problems

John McGready
Johns Hopkins University

Example: CHD and Age

1. Recall the resulting logistic regression equation based on the sample of 58 subjects, relating CHD evidence to patient's age:

$$\ln\left(\frac{p}{1-p}\right) = -6.54 + .135 \times \text{Age}$$

- Where p is the estimated probability of evidence (i.e., the estimated proportion of persons with CHD evidence) amongst persons of a given age
 - a) What is the estimated difference in the log (ODDS of CHD) for 60 year olds compared to 55 year olds, based on this equation?
 - b) What is the estimated odds ratio of CHD for 60 year olds compared to 55 year olds, based on this equation?