

## PUBH 7430 – Assignment 0

Your assignment is to download and explore a longitudinal dataset. The *chicks* dataset records the body weights (variable *weight*) of chicks every second day, from birth to day 20, and also on day 21 (variable *Time*). The chicks were on four different protein diets (variable *Diet*).

The goal of this assignment is to familiarize you with longitudinal data and get you thinking about the analysis issues that arise. You won't be handing anything in, but come to class on Tuesday, Sept. 14, prepared to discuss the dataset and your analysis.

### Instructions:

1. Download the data from the course website. The data are provided in CSV (comma-separated value) format. Import the data into your statistical program of choice (e.g., R, SAS, etc.) **If you have trouble importing the data, please post on the discussion board on Canvas.**
2. Review the structure of the data. How many chicks were studied and how many repeated measurements of weight were taken per chick? Is there any missing data?
3. Are there any outliers or unexpected values present in the data?
4. Summarize, graphically, how weight changes over time overall, and each of the different diets.
5. Is there statistical evidence that the chicks' weights change over the course of the study? Is there an effect of diet on weight change? Consider how you can use methods for independent data that you already know (e.g., t-tests and regression) to answer these questions.