

# Microbiome Diet Study Participant Report

Thank you for participating in the Knights Lab citizen science project: The Microbiome Diet Study. Included in this report is some high-level information about your daily dietary intake and your daily microbiome variation. This report does not provide any medical advice and is not intended to be used to diagnose disease. If you have questions about your report, or you would like access to your raw data, please contact the study coordinator Abby Cole at [cole0463@umn.edu](mailto:cole0463@umn.edu)

Here are your average daily macronutrient nutritional intakes contrasted to recommended macronutrient nutritional intake levels:

Type	Your Macronutrient Intake Proportions	Recommended Intake Range
CALORIES (kcal)	2233.97 kilocalories	
PROTEIN (g)	25.21%	10 - 35%
TOTAL FAT (g)	17.06%	20 - 35%
CARBS (g)	57.73%	45 - 65%

These are your average daily micronutrient nutritional intakes contrasted to recommended micronutrient nutritional intake levels:

Type	Your Average	Study Average	Recommended Daily Allowances(Male/Female)
FOLATE (ug)	677.35	437.96	400
CHOLINE (mg)	415.25	366.66	550 / 425
CALCIUM (mg)	1477.48	1064.4	1000 *
SODIUM (mg)	4413.8	3465.41	1500 *
POTASSIUM (mg)	3768.93	2916.33	4700
MAGNESIUM (mg)	402.16	366.89	400 / 310 *
IRON (mg)	26.81	15.23	8 / 18 *
SELENIUM (ug)	124.85	112.56	55
ZINC (mg)	15.69	12.72	11 / 8 *
VITAMIN B12 (ug)	6.34	4.99	2.4
VITAMIN A (ug)	797.19	952.14	900 / 700
VITAMIN C (mg)	129.21	89.72	90 / 75
VITAMIN D (ug)	8.59	5.44	15 *
VITAMIN E (mg)	7.71	10.81	15
VITAMIN K (ug)	154.07	227.23	120 / 90

The above tables show your average daily intakes of key macro and micro nutrients during the study period. For your reference also shown here are the overall average for the other participants in the study and the recommended intake levels by gender. Values marked with asterisks are indicative of recommended values that may vary for individuals over 30 may be higher or lower, visit [https://ods.od.nih.gov/Health\\_Information/Dietary\\_Reference\\_Intakes.aspx](https://ods.od.nih.gov/Health_Information/Dietary_Reference_Intakes.aspx) for a comprehensive breakdown of dietary reference intakes by age and gender.

23.53

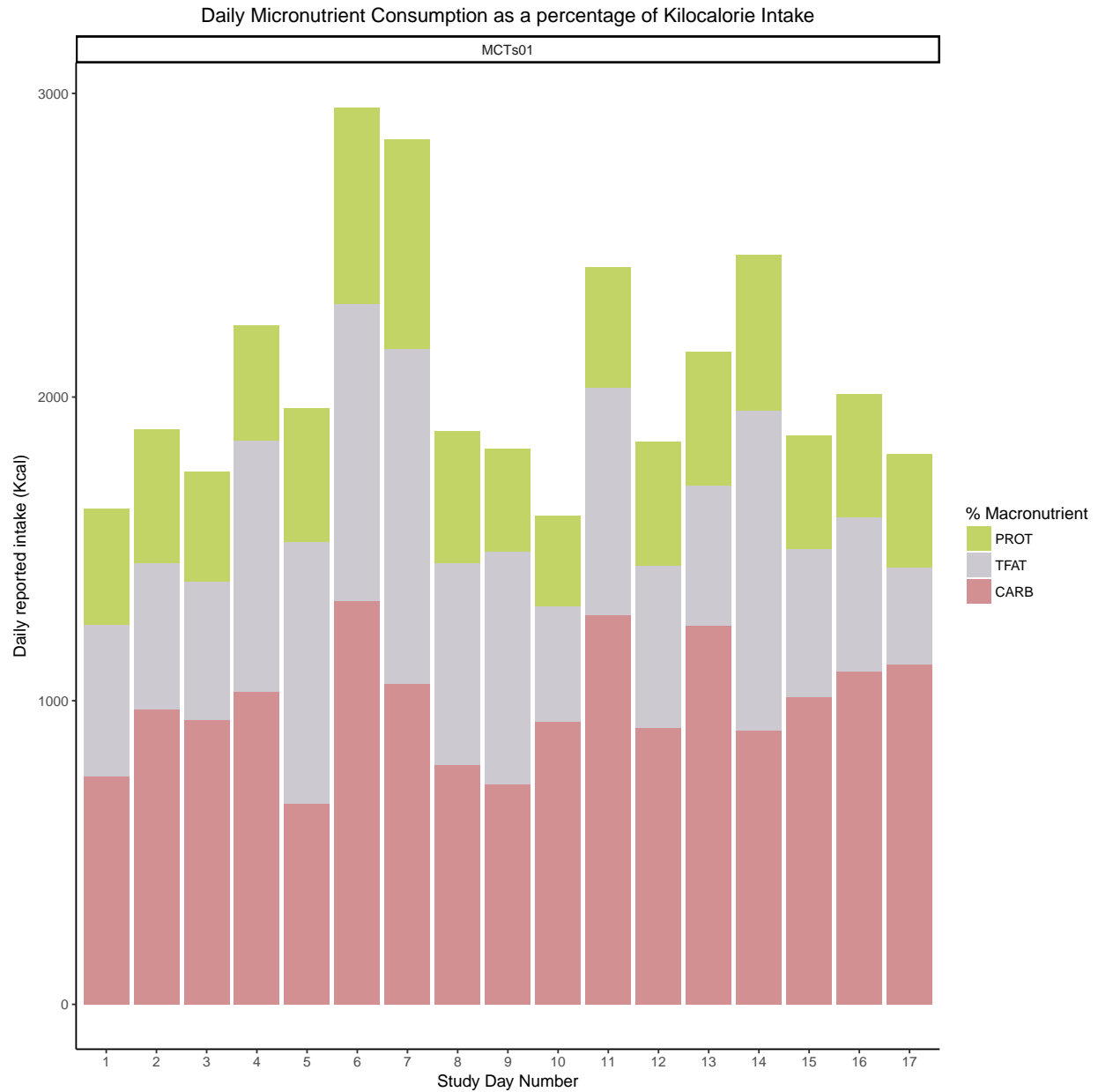


Figure 1: Figure 1 visualizes day to day variation in your consumption of micronutrients viewed as a percentage of total kilocalorie intake. Protein intakes are abbreviated as “PROT”, Carbohydrate intakes are abbreviated as “CARB”, and Total Fat intakes are abbreviated as “TFAT” in the figure legend

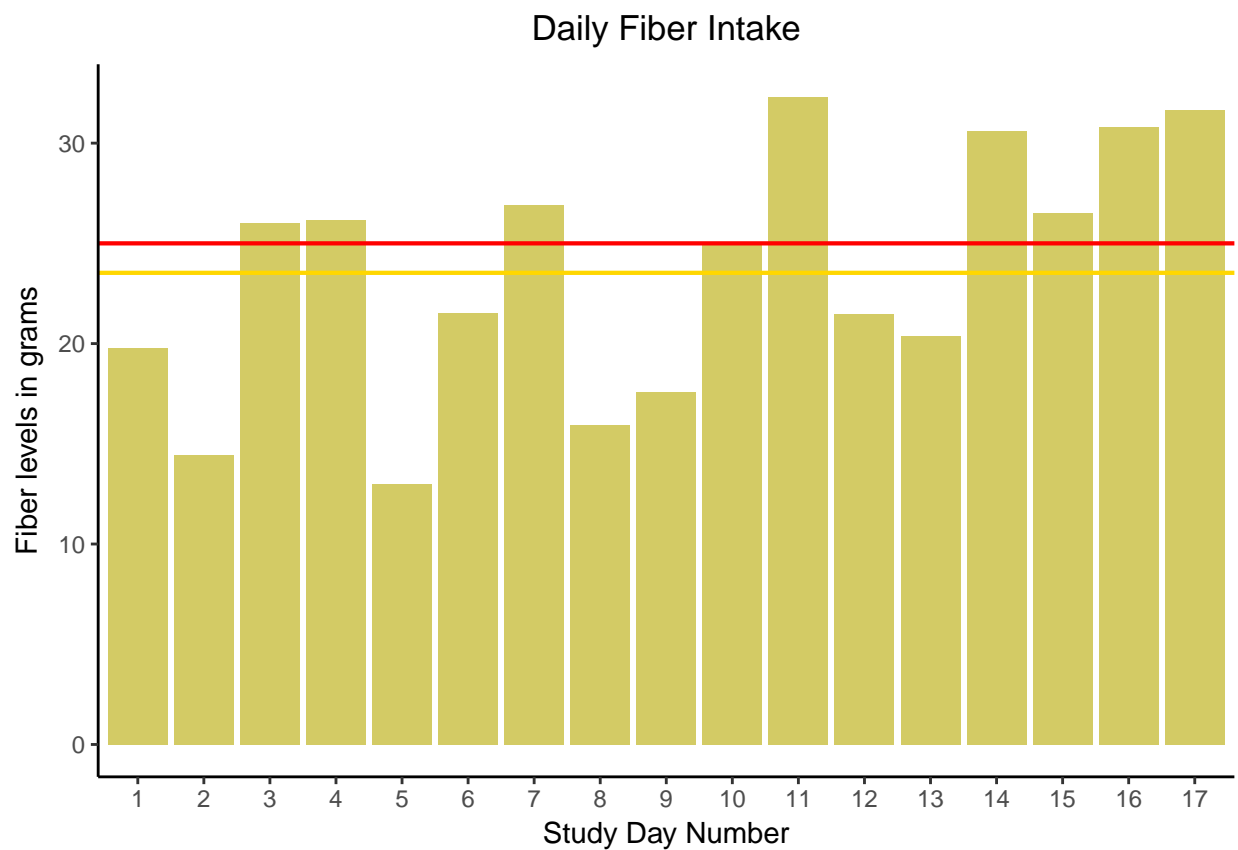


Figure 2: Figure 2 visualizes your Fiber intake on a day-to-day basis. The red line visualizes the recommended level of fiber consumption in grams, while the gold line visualizes your average fiber intake [  $\text{round}(\text{mean}(\text{submap}\$FIBE), 2 \text{ grams})$  ] throughout the course of the study. Add blurb pertaining to microbiome importance

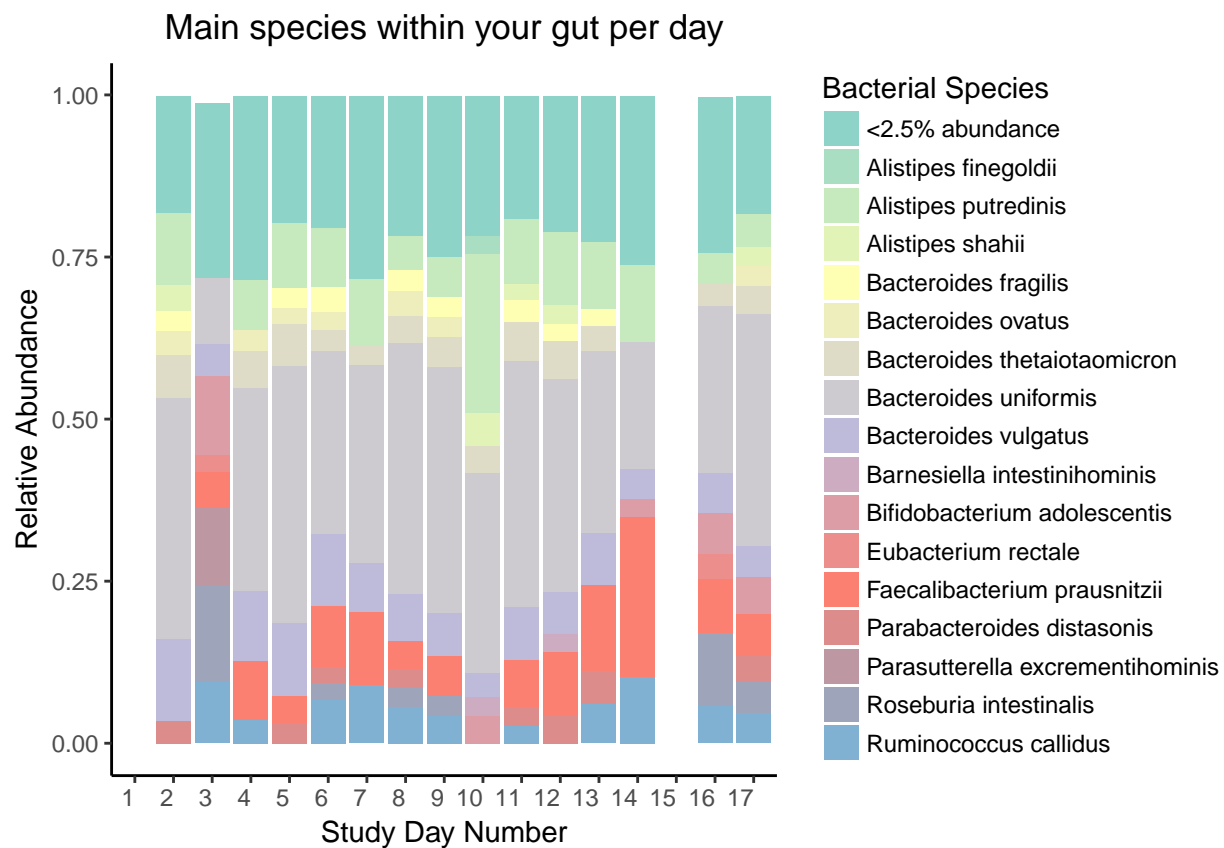


Figure 3: Figure 3 depicts the most abundant bacterial species within your gut per each day of the study. The “<2.5% abundance” column represents a sum of bacterial species that individually account for less than 7% of

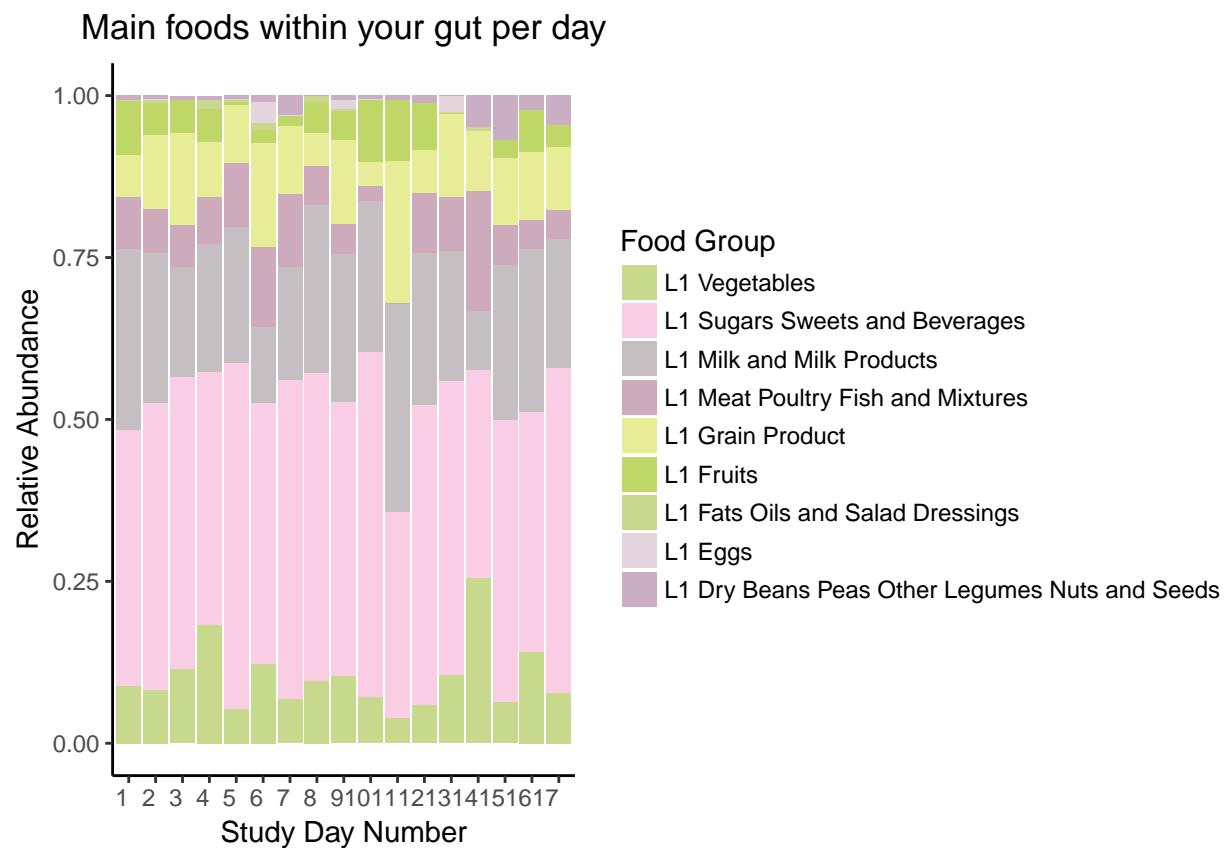


Figure 4: Figure 3.5 depicts the most abundant bacterial species within your gut per each day of the study. The “<7% abundance” column represents a sum of bacterial species that individually account for less than 7% of

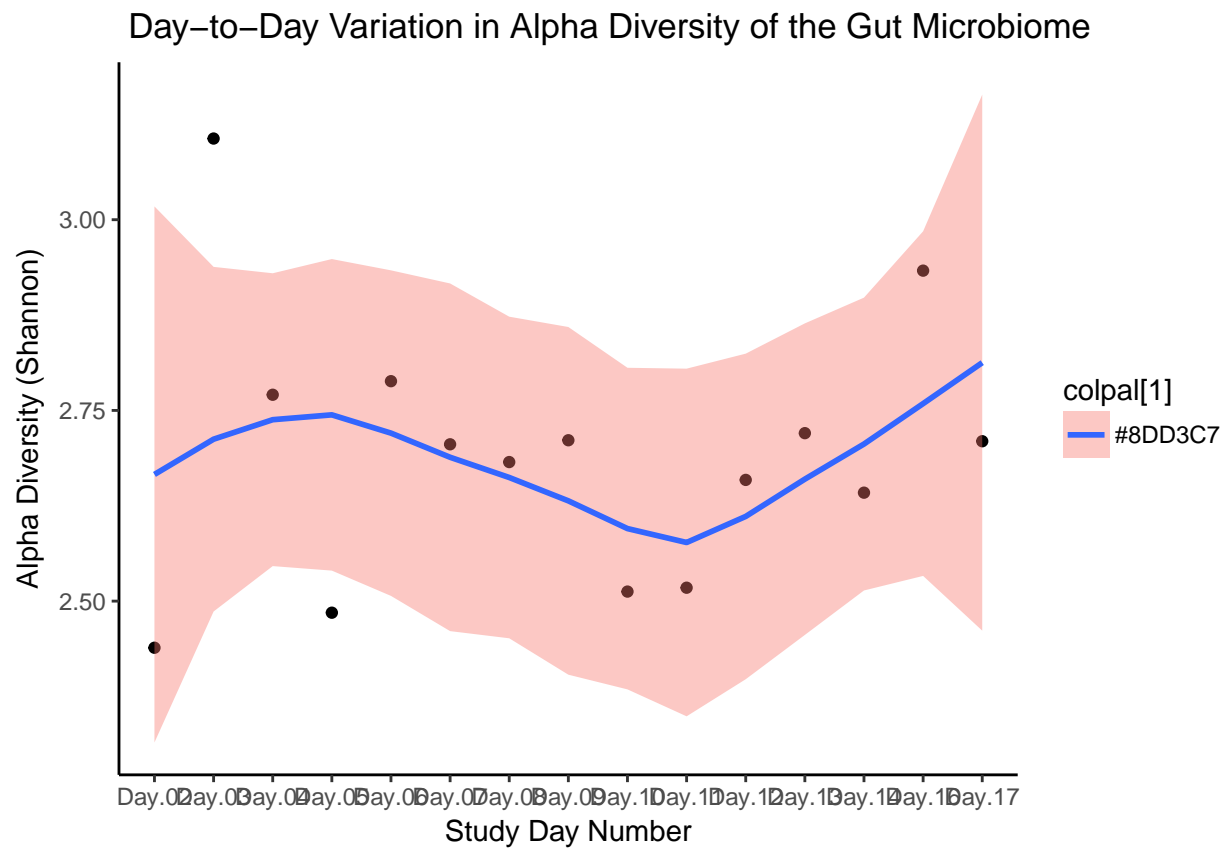


Figure 5: Figure 4 details how the bacterial diversity exhibited within your gut changes on a daily basis. This diversity catalogued within the gut microbiome is known as alpha diversity, and the metric utilized is the Shannon index of alpha diversity. The Shannon index accounts for both abundance and evenness of bacterial species present within the gut microbiome.

## Day-To-Day Variation in Beta Diversity of the Gut Microbiome – PCOA – MCTs



Figure 6: Figure 5 is a PCoA plot. A PCoA plot summarizes variability within a given dataset by producing a set of uncorrelated axes. Essentially, the PCoA plot can be utilized to interpret similarity of data points – data points closer to one another are more similar to one another, while points further away from each other are more dissimilar. Each data point in this plot represents a subject gut microbiome at a particular time during the multiple days of sample collection and testing. The shape corresponding to your subject ID (given above) represents data points pertaining to your gut microbiome.