



Data Collection Worksheet

Please Note: The Data Collection Worksheet (DCW) is a tool to aid integration of a PhenX protocol into a study. The PhenX DCW is not designed to be a data collection instrument. Investigators will need to decide the best way to collect data for the PhenX protocol in their study. Variables captured in the DCW, along with variable names and unique PhenX variable identifiers, are included in the PhenX Data Dictionary (DD) files.

These questions are about the different kinds of foods you ate or drank during the PAST MONTH, that is, the past 30 days. When answering, please include meals and snacks eaten at home, at work or school, in restaurants, and anyplace else. *Read text if the respondent needs further clarification about the information requested.

1. During the past month, how often did you eat HOT OR COLD CEREALS? *Read if necessary: Include cereals eaten at any time of the day.

00 [] Never

01 [] 1-3 times last month

02 [] 1-2 times per week

03 [] 3-4 times per week

04 [] 5-6 times per week

05 [] 1 time per day

06 [] 2 times per day

07 [] 3 times per day

08 [] 4 times per day

09 [] 5 or more times per day

97 [] Refused

99 [] Don't know

Skip Instructions: <00, 97, 99> [go to question 2]; else [go to question 1a]

1a. During the past month . . . When you ate cereal, which kinds did you usually eat? *Enter one or two types. Separate with a comma.

- 1 Cooked cereals (such as oatmeal, cream of wheat, grits)
- 2 All bran cereals (such as All Bran®, Fiber One®, 100% Bran®, or Bran Buds®)
- 3 Cereals with some bran or fiber (such as Cheerios®, Raisin Bran®, Shredded Wheat®, Total®, Wheaties®, 40% Bran Flakes®, Granola, Grape Nuts®, Mueslix®, etc.)
- 4 Cereals with little bran or fiber (such as Corn Flakes®, Honey Nut Cheerios®, Froot Loops®, Rice Krispies®, Kix®, Frosted Flakes®, Special K®, Cap'n Crunch®, Blueberry Morning®, Product 19®, etc.)
- 5 Other
- 6 Refused
- 7 Don't know

2. During the past month . . . How often did you have MILK, either to drink or on cereal? Do NOT include small amounts of milk in coffee or tea. *Read if necessary: Do NOT include cream or soy milk. INCLUDE skim, no-fat, low-fat, whole milk, buttermilk, and lactose-free milk. Also INCLUDE chocolate or other flavored milks.

- 00 Never
- 01 1-3 times last month
- 02 1-2 times per week
- 03 3-4 times per week
- 04 5-6 times per week
- 05 1 time per day
- 06 2 times per day
- 07 3 times per day
- 08 4 times per day
- 09 5 or more times per day
- 97 Refused
- 99 Don't know

3. During the past month, how often did you drink regular, carbonated SODA OR SOFT DRINKS that contain sugar? Do NOT include diet soda. *Read if necessary: Do

NOT include diet or sugar-free fruit drinks. Do NOT include juices or tea in cans.
DO NOT include diet mineral water or diet flavored waters.

00 [] Never

01 [] 1-3 times last month

02 [] 1-2 times per week

03 [] 3-4 times per week

04 [] 5-6 times per week

05 [] 1 time per day

06 [] 2 times per day

07 [] 3 times per day

08 [] 4 times per day

09 [] 5 or more times per day

97 [] Refused

99 [] Don't know

4. During the past month, how often did you drink 100% FRUIT JUICE, such as orange, mango, apple, and grape juices? Do NOT count fruit drinks. *Read if necessary: INCLUDE only 100% pure juices. Do NOT include fruit drinks with added sugar, like Kool-Aid®, Hi-C®, lemonade, cranberry cocktail, Gatorade®, Tampico®, and Sunny Delight®.

00 [] Never

01 [] 1-3 times last month

02 [] 1-2 times per week

03 [] 3-4 times per week

04 [] 5-6 times per week

05 [] 1 time per day

06 [] 2 times per day

07 [] 3 times per day

08 [] 4 times per day

09 [] 5 or more times per day

97 [] Refused

99 [] Don't know

NOW we are going to ask about FRUIT-FLAVORED drinks WITH ADDED SUGAR.

5. How often did you drink FRUIT-FLAVORED DRINKS with sugar (such as Kool-Aid®, Hi-C®, lemonade, or cranberry cocktail)? Do NOT include diet drinks. *Read if necessary: INCLUDE Gatorade® and other sports drinks with added sugar. INCLUDE Tampico®, Sunny Delight® and Twister®. Do NOT include 100% fruit juices or soda. Do NOT include yogurt drinks or carbonated water.

00 [] Never

01 [] 1-3 times last month

02 [] 1-2 times per week

03 [] 3-4 times per week

04 [] 5-6 times per week

05 [] 1 time per day

06 [] 2 times per day

07 [] 3 times per day

08 [] 4 times per day

09 [] 5 or more times per day

97 [] Refused

99 [] Don't know

6. During the past month . . . How often did you eat FRUIT? COUNT fresh, frozen, or canned fruit. Do NOT count juices. *Read if necessary: Include fruits such as apples, bananas, applesauce, melon, berries, fruit salad, mangos, papayas, oranges, and grapes.

00 [] Never

01 [] 1-3 times last month

- 02 [] 1-2 times per week
- 03 [] 3-4 times per week
- 04 [] 5-6 times per week
- 05 [] 1 time per day
- 06 [] 2 times per day
- 07 [] 3 times per day
- 08 [] 4 times per day
- 09 [] 5 or more times per day
- 97 [] Refused
- 99 [] Don't know

7. During the past month, how often did you eat a green leafy or lettuce SALAD, with or without other vegetables? *Read if necessary: INCLUDE spinach salads

- 00 [] Never
- 01 [] 1-3 times last month
- 02 [] 1-2 times per week
- 03 [] 3-4 times per week
- 04 [] 5-6 times per week
- 05 [] 1 time per day
- 06 [] 2 times per day
- 07 [] 3 times per day
- 08 [] 4 times per day
- 09 [] 5 or more times per day
- 97 [] Refused
- 99 [] Don't know

8. During the past month . . . How often did you eat FRENCH FRIES, home fries, or hash brown potatoes?

- 00 [] Never
- 01 [] 1-3 times last month
- 02 [] 1-2 times per week
- 03 [] 3-4 times per week
- 04 [] 5-6 times per week
- 05 [] 1 time per day
- 06 [] 2 times per day
- 07 [] 3 times per day
- 08 [] 4 times per day
- 09 [] 5 or more times per day
- 97 [] Refused
- 99 [] Don't know

9. During the past month . . . How often did you eat other WHITE POTATOES? COUNT baked potatoes, boiled potatoes, mashed potatoes and potato salad. *Read if necessary: Do NOT include yams or sweet potatoes. INCLUDE red-skinned and Yukon Gold potatoes

- 00 [] Never
- 01 [] 1-3 times last month
- 02 [] 1-2 times per week
- 03 [] 3-4 times per week
- 04 [] 5-6 times per week
- 05 [] 1 time per day
- 06 [] 2 times per day
- 07 [] 3 times per day
- 08 [] 4 times per day
- 09 [] 5 or more times per day

97 [] Refused

99 [] Don't know

10. During the past month . . . How often did you eat COOKED DRIED BEANS, such as refried beans, baked beans, bean soup, and pork and beans? Do NOT include green beans.

00 [] Never

01 [] 1-3 times last month

02 [] 1-2 times per week

03 [] 3-4 times per week

04 [] 5-6 times per week

05 [] 1 time per day

06 [] 2 times per day

07 [] 3 times per day

08 [] 4 times per day

09 [] 5 or more times per day

97 [] Refused

99 [] Don't know

11. During the past month . . . Not counting what you just told me about (lettuce salads, white potatoes, cooked dried beans), and not counting rice, how often did you eat OTHER VEGETABLES? *Read if necessary: Examples of other vegetables include tomatoes, string beans, carrots, corn, sweet potatoes, cabbage, bean sprouts, collard greens, and broccoli.

00 [] Never

01 [] 1-3 times last month

02 [] 1-2 times per week

03 [] 3-4 times per week

04 [] 5-6 times per week

05 [] 1 time per day

- 06 [] 2 times per day
- 07 [] 3 times per day
- 08 [] 4 times per day
- 09 [] 5 or more times per day
- 97 [] Refused
- 99 [] Don't know

12. During the past month . . . How often did you have TOMATO SAUCES such as spaghetti sauce or pizza with tomato sauce?

- 00 [] Never
- 01 [] 1-3 times last month
- 02 [] 1-2 times per week
- 03 [] 3-4 times per week
- 04 [] 5-6 times per week
- 05 [] 1 time per day
- 06 [] 2 times per day
- 07 [] 3 times per day
- 08 [] 4 times per day
- 09 [] 5 or more times per day
- 97 [] Refused
- 99 [] Don't know

13. During the past month . . . How often did you have SALSA?

- 00 [] Never
- 01 [] 1-3 times last month
- 02 [] 1-2 times per week
- 03 [] 3-4 times per week

- 04 [] 5-6 times per week
- 05 [] 1 time per day
- 06 [] 2 times per day
- 07 [] 3 times per day
- 08 [] 4 times per day
- 09 [] 5 or more times per day
- 97 [] Refused
- 99 [] Don't know

14. During the past month . . . How often did you eat WHOLE-GRAIN BREAD including toast, rolls, and in sandwiches? Whole-grain breads include whole wheat, rye, oatmeal, and pumpernickel. Do NOT include white bread. *Read if necessary: INCLUDE cracked wheat, multi-grain and bran breads.

- 00 [] Never
- 01 [] 1-3 times last month
- 02 [] 1-2 time per week
- 03 [] 3-4 times per week
- 04 [] 5-6 times per week
- 05 [] 1 times per day
- 06 [] 2 times per day
- 07 [] 3 times per day
- 08 [] 4 times per day
- 09 [] 5 or more times per day
- 97 [] Refused
- 99 [] Don't know

15. During the past month, how often did you eat DOUGHNUTS, sweet rolls, Danish, muffins, or Pop-Tarts®? Do NOT include sugar-free items. *Read if necessary: INCLUDE low-fat kinds

- 00 [] Never
- 01 [] 1-3 times last month
- 02 [] 1-2 times per week
- 03 [] 3-4 times per week
- 04 [] 5-6 times per week
- 05 [] 1 time per day
- 06 [] 2 times per day
- 07 [] 3 times per day
- 08 [] 4 times per day
- 09 [] 5 or more times per day
- 97 [] Refused
- 99 [] Don't know

16. During the past month . . . How often did you eat COOKIES, CAKE, PIE, or BROWNIES? Do NOT include sugar-free kinds. *Read if necessary: INCLUDE low-fat kinds. Do NOT include ice cream and other frozen desserts or candy.

- 00 [] Never
- 01 [] 1-3 times last month
- 02 [] 1-2 times per week
- 03 [] 3-4 times per week
- 04 [] 5-6 times per week
- 05 [] 1 time per day
- 06 [] 2 times per day
- 07 [] 3 times per day
- 08 [] 4 times per day
- 09 [] 5 or more times per day
- 97 [] Refused

99 [] Don't know

17. During the past month . . . How often did you eat any kind of CHEESE? Include cheese as a snack; cheese on burgers, sandwiches, or pizza; and cheese mixed into such foods as lasagna, enchiladas, or casseroles.

00 [] Never

01 [] 1-3 times last month

02 [] 1-2 times per week

03 [] 3-4 times per week

04 [] 5-6 times per week

05 [] 1 time per day

06 [] 2 times per day

07 [] 3 times per day

08 [] 4 times per day

09 [] 5 or more times per day

97 [] Refused

99 [] Don't know

Scoring Procedures

The following procedures are used to convert an individual's responses to an estimate of that individual's daily intake of fiber (gm): 1. The frequency reported categorically on the questionnaire is converted to the number of times consumed per day as shown in Table 1. In general, the midpoint of the frequency range was used.

Table 1. Conversion of Frequency Response to Times per Day	
Frequency Response	Times per Day
Never	0

1-3 times per month	0.067
1-2 times per week	0.214
3-4 times per week	0.5
5-6 times per week	0.786
1 time per day	1
2 times per day	2
3 times per day	3
4 times per day	4
5 or more times per day	5

2. The age- and gender-specific portion sizes (see Table 2a and 2b) for each food are multiplied by the frequency calculated in Step 1.

Table 2a. Median Portion Size (P_k) in Grams per Mention by Age for Fiber: Men							
Food Group	Age Group						
	18-27	28-37	38-47	48-57	58-67	68-77	78-99
Cooked Cereals (P_1)	354.0000 00	219.6300 00	247.0000 00	247.0000 00	234.0000 00	239.0000 00	234.0000 00
High-fiber Cereal (P_2)	33.00000 0	33.00000 0	33.00000 0	33.00000 0	22.00000 0	22.00000 0	22.00000 0

Moderate-fiber cereal (P ₃)	84.00000 0	66.00000 0	58.00000 0	64.12500 0	50.00000 0	47.00000 0	39.00000 0
Low-fiber cereal (P ₄)	64.00000 0	54.00000 0	54.00000 0	40.62500 0	40.00000 0	30.37500 0	29.00000 0
Milk (P ₅)	325.3333 33	268.4000 00	274.5000 00	244.0000 00	233.8333 33	206.0000 00	183.0000 00
Regular Soda (P ₆)	453.8666 67	372.0000 00	372.0000 00	372.0000 00	370.2000 00	368.4000 00	368.0000 00
Fruit Drinks (P ₇)	480.0000 00	376.5000 00	378.2650 00	372.0000 00	306.0000 00	248.0000 00	248.0000 00
Fruit Juice (P ₈)	372.0000 00	311.2500 00	249.0000 00	249.0000 00	248.0000 00	186.7500 00	186.7500 00
Fruit (P ₉)	131.7500 00	128.0000 00	123.2000 00	127.5000 00	122.0000 00	118.0000 00	114.2500 00
Salad (P ₁₀)	30.00000 0	47.83333 3	42.50000 0	41.25000 0	42.50000 0	41.25000 0	44.66666 7
French fries (P ₁₁)	112.5000 00	114.0000 00	100.0000 00	100.0000 00	85.50000 0	85.50000 0	97.00000 0
Other potatoes (P ₁₂)	210.0000 00	193.0000 00	193.0000 00	161.0000 00	150.0000 00	127.0000 00	113.2500 00
Dried beans (P ₁₃)	222.5000 00	188.0950 00	178.0000 00	189.7500 00	226.8000 00	199.3333 33	214.0000 00

Other vegetables (P ₁₄)	61.25000 0	74.16666 7	75.62500 0	81.66666 7	76.00000 0	73.33250 0	70.00000 0
Tomato sauce (P ₁₅)	63.00000 0	125.0000 00	125.0000 00	156.2500 00	122.5000 00	125.0000 00	125.0000 00
Salsa (P ₁₆)	62.25000 0	62.25000 0	49.27500 0	43.87500 0	16.00000 0	31.13000 0	31.13000 0
Whole-Grain Bread (P ₁₇)	56.00000 0	54.00000 0	52.00000 0	52.00000 0	51.00000 0	48.25000 0	48.00000 0
Doughnuts, sweet rolls, muffins (P ₁₈)	71.00000 0	77.50000 0	72.80000 0	65.00000 0	63.00000 0	57.00000 0	57.00000 0
Cookies, pie, cake, brownies (P ₁₉)	64.00000 0	66.00000 0	66.00000 0	73.73333 3	67.50000 0	64.00000 0	61.00000 0
Cheese (P ₂₀)	35.44000 0	28.35000 0	30.47000 0	29.39000 0	28.35000 0	28.35000 0	28.35000 0

Table 2b. Median Portion Size (P_k) in Grams per Mention by Age for Fiber: Women

Food Group	Age Group						
	18-27	28-37	38-47	48-57	58-67	68-77	78-99
Cooked Cereals (P ₁)	234.0000 00	234.0000 00	234.0000 00	234.0000 00	226.8000 00	234.0000 00	227.4750 00

High-fiber Cereal (P ₂)	42.75000 0	42.75000 0	42.75000 0	42.75000 0	27.97000 0	27.97000 0	27.97000 0
Moderate-fiber cereal (P ₃)	60.00000 0	57.00000 0	53.00000 0	49.50000 0	42.00000 0	39.08333 3	40.00000 0
Low-fiber cereal (P ₄)	46.50000 0	37.50000 0	36.25000 0	33.00000 0	27.00000 0	26.00000 0	25.00000 0
Milk (P ₅)	244.0000 00	244.0000 00	244.0000 00	214.2500 00	183.7500 00	183.0000 00	183.0000 00
Regular Soda (P ₆)	372.0000 00	372.0000 00	370.2000 00	368.4000 00	330.6666 67	366.0000 00	368.2000 00
Fruit Drinks (P ₇)	360.0000 00	341.0000 00	250.0000 00	250.0000 00	248.0000 00	240.0000 00	221.2000 00
Fruit Juice (P ₈)	280.1250 00	249.0000 00	248.8000 00	233.2500 00	189.7550 00	186.6000 00	186.7000 00
Fruit (P ₉)	118.0000 00	118.0000 00	118.0000 00	118.0000 00	118.0000 00	112.4271 43	109.0000 00
Salad (P ₁₀)	33.75000 0	32.08333 3	47.00000 0	55.00000 0	43.75000 0	34.33333 3	41.25000 0
French fries (P ₁₁)	79.50000 0	70.00000 0	70.00000 0	70.00000 0	66.00000 0	70.00000 0	64.00000 0
Other potatoes (P ₁₂)	122.0000 00	127.0000 00	119.0000 00	113.0000 00	105.0000 00	105.0000 00	105.0000 00

Dried beans (P ₁₃)	132.750000	126.500000	126.500000	141.750000	130.550000	172.000000	178.000000
Other vegetables (P ₁₄)	56.000000	62.043333	64.415000	64.920000	65.000000	67.375000	71.333333
Tomato sauce (P ₁₅)	125.000000	113.400000	62.500000	125.000000	62.500000	62.500000	62.500000
Salsa (P ₁₆)	32.000000	31.130000	36.565000	27.847500	31.130000	16.000000	16.000000
Whole-Grain Bread (P ₁₇)	50.000000	48.000000	47.500000	45.000000	45.000000	42.400000	34.000000
Doughnuts, sweet rolls, muffins (P ₁₈)	67.333333	58.000000	57.000000	58.500000	57.000000	59.000000	47.000000
Cookies, pie, cake, brownies (P ₁₉)	56.700000	50.000000	48.800000	55.200000	57.000000	48.675000	52.666667
Cheese (P ₂₀)	28.250000	24.000000	24.000000	26.250000	28.350000	26.250000	28.350000

3. Regression coefficients (see below) are applied according to the equation below.

Parameter	Men	Women
Intercept (b ₀)	2.015301	1.838259
Cooked Cereals (b ₁)	0.000558	0.000671

High-fiber Cereal (b ₂)	0.011463	0.019873
Moderate-fiber cereal (b ₃)	0.003515	0.004688
Low-fiber cereal (b ₄)	-0.000425	0.001493
Milk (b ₅)	0.000180	0.000169
Regular Soda (b ₆)	0.000043	---
Fruit Drinks (b ₇)	0.000141	0.000115
Fruit juice (b ₈)	0.000166	0.000229
Fruit (b ₉)	0.000985	0.001009
Salad (b ₁₀)	-0.000447	---
French fries (b ₁₁)	0.001517	0.001381
Other potatoes (b ₁₂)	0.000720	0.000693
Dried beans (b ₁₃)	0.002156	0.003217
Other vegetables (b ₁₄)	0.000899	0.000925
Tomato sauce (b ₁₅)	0.001315	0.001204
Salsa (b ₁₆)	0.003632	0.003239

Whole-grain bread (b ₁₇)	0.002927	0.003401
Doughnuts, sweet rolls, muffins (b ₁₈)	0.000979	0.001683
Cookies, pie, cake, brownies (b ₁₉)	0.001006	0.001377
Cheese (b ₂₀)	0.001206	0.000513

To estimate fiber (gm), the model is:

$$E (\text{Dietary Factor})^{.33} = b_0 + b_1N_{FG1}P_1 + b_2N_{FG2}P_2 + \dots + b_{20}N_{FG20}P_{20}$$

For men: Cube root of fiber (mgs) = 2.015301 + 0.000558 (Daily Frequency * Gender/Age Specific Portion Size per Mention for Cooked cereals) + 0.011463 (Daily Frequency * Gender/Age Specific Portion Size per Mention for High-fiber Cereal) + ... 0.001206 (Daily Frequency * Gender/Age Specific Portion Size per Mention for Cheese)

For women: Cube root of fiber (mgs) = 1.838259 + 0.000671 (Daily Frequency * Gender/Age Specific Portion Size per Mention for Cooked cereals) + 0.019873 (Daily Frequency * Gender/Age Specific Portion Size per Mention for High-fiber Cereal) + ... 0.000513 (Daily Frequency * Gender/Age Specific Portion Size per Mention for Cheese) All Bran®, Bran Buds®, Raisin Bran®, Mueslix®, Corn Flakes®, Froot Loops®, Rice Krispies®, Frosted Flakes®, Special K®, and Product 19® are registered trademarks, Kellogg NA Co. Fiber One®, Cheerios®, Total®, Wheaties®, Honey Nut Cheerios®, and Kix® are registered trademarks, General Mills Inc. 100% Bran®, Shredded Wheat®, 40% Bran®, Grape Nuts®, and Blueberry Morning® are registered trademarks, Post Foods, LLC. Cap'n Crunch® is a registered trademark, Quaker Oats Company; Kool-Aid® is a registered trademark, Kraft Foods Inc.; Hi-C® is a registered trademark, The Coca-Cola Company; Gatorade® is a registered trademark, PepsiCo Inc.; Tampico® is a registered trademark, Tampico Beverages, Inc.; Sunny Delight® is a registered trademark, Sunny Delight Beverages Co.; Twister® is a registered trademark, Tropicana Products, Inc.; Pop-Tarts® is a registered trademark, Kellogg NA Co.

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