Nutritional Analysis of Soups, 2011-2014
A July 23, 2014 Report to the Nutrition Committee and Kendal at Oberlin Dining Services and September 14, 2014 Addendum

The data in Table 1 on pages 4-5 specify nutritional values of soups appearing on our lunch and dinner menus for the current 2014 Spring/Summer menu cycle (five weeks from Wednesday, June 11, 2014 thru Tuesday, July 15, 2014). These data are then added to those in earlier reports to enable a nutritional analysis of soups over a four-year period.

Although protein, saturated fat, and sodium values are included, protein content is ignored since it is assumed that residents are not concerned about soup as a source of protein. As in prior analyses, the following definition, based on the standard agreed to some years ago by Dining Services and the Nutrition Committee, is adopted for a nutritionally satisfactory soup.

Definition. A soup is considered Nutritionally Satisfactory (NS) if and only if a serving size portion contains less than 8 grams of saturated fat and less than 400 milligrams of sodium.

In Table 1, nutritional values of saturated fat and sodium not meeting this standard appear in **bold** and an asterisk appears in the right margin for each soup that is Nutritionally Unsatisfactory (NU).

Nutritional data for the 2014 Spring/Summer menu cycle in Table 1 are summarized below[1]. Adding the results in the March 26, 2014 report to the Nutrition Committee and Dining Services on soups during earlier menu cycles yields the following data for the latest four Fall/Winter and four Spring/Summer menu cycles.

Meal	Number of Soups Served[2]	Number (%) of NS Soups	Number (%) of NU Soups	Reason(s) for Soup Being NU
2014 Spring/Summer Menu Cycle				
Lunch	30	25 (83%)	5 (17%)	3 high Na, 2 high Sat. Fat
Sunday Brunch	5	4 (80%)	1 (20%)	1 high Sat. Fat
Sunday Supper	5	4 (80%)	1 (20%)	1 high Sat. Fat
Dinner	30	24 (80%)	6 (20%)	4 high Na, 2 high Sat. Fat
Total	70	57 (81%)	13 (19%)	7 high Na, 6 high Sat. Fat
2013 Spring/Summer Menu Cycle				
Lunch	30	25 (83%)	5 (17%)	3 high Na, 2 high Sat. Fat
Sunday Brunch	5	4 (80%)	1(20%)	1 high Sat. Fat
Sunday Supper	5	4 (80%)	1 (20%)	1 high Sat. Fat
Dinner	30	24 (80%)	6 (20%)	4 high Na, 2 high Sat. Fat
Total	70	57 (81%)	13 (19%)	7 high Na, 6 high Sat. Fat
2012 Spring/Summer Menu Cycle				
Lunch	30	26 (87%)	4 (13%)	3 high Na; 1 high Sat. Fat
Sunday Brunch	5	4 (80%)	1 (20%)	1 high Sat. Fat
Sunday Supper	5	4 (80%)	1 (80%)	1 high Sat. Fat
Dinner	30	24 (80%)	6 (20%)	4 high Na, 2 high Sat. Fat
Total	70	58 (83%)	12 (17%)	7 high Na, 5 high Sat. Fat

2011 Spring/Summer Menu Cycle				
Lunch	29	26 (90%)	3 (10%)	3 high Na
Sunday Brunch	5	4 (80%)	1 (20%)	1 high Sat. Fat
Sunday Supper	5	5 (100%)	0 (0%)	
Dinner	29	22 (76%)	7 (24%)	6 high Na, 1 high Sat. Fat
Total	68	57 (84%)	11 (16%)	9 high Na, 2 high Sat. Fat
2013/2014 Fall/Winter Menu Cycle				
Lunch	30	27 (90%)	3 (10%)	2 high Na, 1 high Sat. Fat
Sunday Brunch	5	4 (80%)	1 (20%)	1 high Na
Sunday Supper	5	5 (100%)	0 (0%)	
Dinner	29	28 (97%)	1 (3%)	1 high Sat. Fat
Total	69	64 (93%)	5 (7%)	3 high Na, 2 high Sat. Fat
2012/2013 Fall/Winter Menu Cycle				
Lunch	30	26 (87%)	4 (13%)	3 high Na, 1 high Na & Sat. Fat
Sunday Brunch	5	5 (100%)	0 (0%)	
Sunday Supper	5	5 (100%)	0 (0%)	
Dinner	30	27 (90%)	3 (10%)	3 high Sat. Fat
Total	70	63 (90%)	7 (10%)	3 high Na, 3 high Sat. Fat, 1 high Na & Sat. Fat
2011/2012 Fall/Winter Menu Cycle				
Lunch	30	25 (83%)	5 (17%)	3 high Na, 1 high Sat. Fat, 1 high Na & Sat. Fat
Sunday Brunch	5	5 (100%)	0 (0%)	
Sunday Supper	5	5 (100%)	0 (0%)	
Dinner	30	28 (93%)	2 (7%)	2 high Sat. Fat
Total	70	63 (90%)	7 (10%)	3 high Na, 3 high Sat. Fat, 1 high Na & Sat. Fat
2010/2011 Fall/Winter Menu Cycle				
Lunch	30	24 (80%)	6 (20%)	4 high Na, 1 high Sat. Fat, 1 high Na & Sat. Fat
Sunday Brunch	5	5 (100%)	0 (0%)	
Sunday Supper	5	4 (80%)	1 (20%)	1 high Na
Dinner	28	27 (96%)	1 (4%)	1 high Sat. Fat
Total	68	60 (88%)	8 (12%)	5 high Na, 2 high Sat. Fat, 1 high Na & Sat. Fat
Total for All Four Fall/Winter Menu Cycle Soups Combined				
	277 soups served:	250 (90%) NS; 27 (10%) NU		14 high Na; 10 high Sat. Fat, 3 high Na & Sat. Fat
Total for All Four Spring/Summer Menu Cycle Soups Combined				
	278 soups served:	229 (82%) NS; 49 (18%) NU		30 high Na, 19 high Sat. Fat
Total for Above Eight Menu Cycles Combined				
	555 soups served:	479 (86%) NS; 76 (14%) NU		44 high Na, 29 high Sat. Fat, 3 high Na & Sat. Fat

[1] I am grateful to Blair Loudermelt, Hospitality Services Assistant, and thank her for supplying the menus on which this entire analysis is based.

[2]The number of soups served varies due to holiday menus that contain no nutritional values. During the 2013/2014 Fall/Winter menu cycle, there was Valentine's Day on 02/14/2014. Similar missing values occurred in 2010-2011 Fall/Winter due to two special dinners (Robert Burns on 01/28/2011 and Chinese New Year on 02/11/2011). In 2011 Spring/Summer there was July 4, 2011 for which both lunch and dinner menus were missing nutritional values.

Discussion and Questions

1. Of all 555 soups served, for 86% to be nutritionally satisfactory is a good record from a nutritional standpoint. But we seem to be going the wrong way in the Spring/Summer menu cycles where the summary above shows that the percentage of NU soups was not only high, but also increased in each year, going from 16% in 2011 to 17% in 2012 to 19% in 2013 and staying at 19% in the current 2014 menu cycle. The summary also shows that the record for NU soups in Fall/Winter menu cycles is significantly better, being not only lower than the corresponding Spring/Summer percentages, but decreasing from 12% in 2010/2011 to 10% in the following two years and decreasing to 7% in 2013/2014. Why can we do so much better in Fall/Winter than in Spring/Summer menu cycles?

Note that in the current 2014 Spring/Summer menu cycle 19% of soups served are Nutritionally Unsatisfactory. The following soups were identified as NU in Table 1 for the current menu cycle. (We exclude in this list any NU soup that misses meeting the required standard of sodium or saturated fat by at most 5%. For example, NU soups with 406mg Na rather than less than 400mg or 8g of saturated fat rather than less than 8g are "near misses" and we do not list them.)

High Na	Hot & Sour Soup (437mg Na)
	Tuscan Onion w/ Pancetta Bacon (421mg Na)
	Black Bean Soup (618mg Na)
	Cream of Tomato Soup (460mg Na)
	Miso Soup (610mg Na)
High Sat. Fat	African Bean Soup (11g Sat. Fat)
	New England Clam Chowder (11g Sat. Fat)
	Creamy Carrot Coconut Soup (13g Sat. Fat)
	Chilled Peach Soup (25g Sat. Fat)

It turns out that every one of these soups was also served during the 2013 Spring/Summer menu cycle and identified as NU in our prior report dated March 26, 2014. One way to have reduced the 19% of NU soups in the current 2014 menu cycle would have been to identify the worst of the NU soups in the 2013 Spring/Summer menu cycle and to have introduced replacement soups that are NS. Dining Services chose to repeat these soups with no changes. In fact, all the soups served in the 2013 Spring/Summer menu cycle are being repeated in the current 2014 menu cycle, thereby producing a high 19% of NU soups for a second straight year.

However, replacing all NU soups is not practical if these NU soups happen to be popular with residents. After all, not everyone pays attention to nutritional values printed on the menus. At the relatively few meals when one of these popular NU soups is on the menu, might Dining Services prepare a second soup that is NS? Our dining facilities were designed to allow two soups to be served. Creating a second soup for these meals would be a way to ensure that each

resident, whether or not concerned with nutritional values, can choose his or her preferred soup. Were Dining Services to pair each NU soup with a soup that was NS, we would effectively have reduced to zero the percentage of NU soups. That would be a truly newsworthy development.

2. For the 76 nutritionally unsatisfactory soups among the 555 soups served over the four-year period under study, there were 47 with high sodium and 32 with high saturated fat. (Of these, 3 NU soups had both high Na and high Sat. Fat.) Since high sodium accounts for more of the nutritionally unsatisfactory soups than high saturated fat, any effort by Dining Services to improve the record will require finding ways to lower both sodium and saturated fat, but especially sodium. Ways will also need to be found to make both lunch and dinner Spring/Summer soups compare more favorably nutritionally to Fall/Winter soups. With such a large number of high quality soup recipes publicly available, some effort should be able to significantly lower the overall number of NU soups served throughout each year.

3. This report concentrates on nutritional values and ignores the taste of served soups. Of course, the ideal is that soups be nutritionally satisfactory and attractively tasty for residents. Dining Services clearly does not ignore taste, as is evidenced by soup being a very popular choice at mealtimes. Dining Services is successful in preparing many soups that are tasty and attractive to and enjoyed by a large number of residents. The questions raised in this report are focused on presenting nutritional problems with soups solely as a way to assist Dining Services in making even more soups available that are both tasty and healthy.

4. To satisfy the health needs of a number of residents, Dining Services now identifies soups that are gluten free by the symbol *GF* on the lunch and dinner menus. A glance down the list of soups in Table 1 shows the large number of soups that are now *GF*.

Table 1: SOUPS at Lunch (L), Sunday Brunch & Supper, and Dinner (D): 2014 Spring/Summer Menu Cycle
Wednesday, June 11, 2014 thru Tuesday, July 15, 2014

DATE	SOUP	Protein grams/serving	SAT. FAT grams/serving	SODIUM milligrams/serving	
06/11/14	(L) Italian Wedding Soup	23	2	187	
	(D) Green Grape Gazpacho	3	0	129	
06/12/14	(L) Chicken & Brown Rice Soup *GF*	7	0	256	
	(D) Vegetarian Summer Lentil Soup *GF*	6	0	177	
06/13/14	(L) Curried Zucchini Soup *GF*	2	0	**406**	*****(near miss)
	(D) Vegetarian Vegetable Soup *GF*	1	0	157	
06/14/14	(L) Turkey Creole Soup *GF*	3	0	196	
	(D) Chilled Vichyssoise *GF*	2	3	305	
06/15/14	(Brunch) Cream of Mushroom Soup *GF*	6	2	202	
	(Supper) Turkey Noodle Soup	3	0	216	
06/16/14	(L) Vegetable Beef Soup *GF*	4	0	162	
	(D) Black Bean & Corn Soup *GF*	10	1	174	
06/17/14	(L) African Bean Soup *GF*	10	**11**	69	*****
	(D) Pasta Fagioli Soup	9	1	187	
06/18/14	(L) Vegan Cream of Zucchini Soup *GF*	2	0	105	
	(D) Sherried Mushroom Soup *GF*	2	0	240	
06/19/14	(L) Potato & Pesto Soup *GF*	8	3	334	
	(D) Caribbean Clam Chowder *GF*	8	1	**408**	*****(near miss)
06/20/14	(L) Steak and Bean Soup *GF*	14	1	235	
	(D) Chicken & Brown Rice Soup	7	0	256	

06/21/14 (L) Rustico Italian Soup	4	0	237	
(D) Chilled Spring Pea Soup *GF*	6	1	128	
06/22/14 (Brunch)Tomato, Cheddar, Basil Soup *GF*	8	3	319	
(Supper) New England Clam Chowder *GF*	6	**11**	155	*
06/23/14 (L) Lentil Soup w/Pancetta & Rosemary *GF*	6	0	270	
(D) Minestrone Soup *GF*	3	0	178	
06/24/14 (L) Tomato Bouillon Soup *GF*	1	0	297	
(D) Hot and Sour Soup *GF*	7	1	**437**	*****
06/25/14 (L) Creamy Carrot Coconut Soup *GF*	2	**13**	152	*****
(D) Beef Barley Soup	5	1	105	
06/26/14 (L) Cream of Broccoli Soup	8	6	226	
(D) Mexican Tortilla Soup	13	3	386	
06/27/14 (L) Corn, Potato, Mushroom Chowder *GF*	3	1	147	
(D) French Onion Soup	1	2	250	
06/28/14 (L) Garlicky Bread Soup	6	2	370	
(D) Italian Wedding Soup	8	1	344	
06/29/14 (Brunch) Boston Clam Chowder	10	2	133	
(Supper) Garden Vegetable Soup *GF*	2	0	98	
06/30/14 (L) Italian Chicken Lentil Soup *GF*	12	1	247	
(D) Chilled Cucumber Soup *GF*	2	**8**	129	*****(near miss)
07/01/14 (L) Split Pea Soup *GF*	7	0	332	
(D) Herbed Chicken Noodle Soup	6	0	130	
07/02/14 (L) Tomato Basil Bread Soup	5	2	361	
(D) Italian Egg & Spinach Soup *GF*	3	0	180	
07/03/14 (L) Turkey Creole Soup *GF*	2	0	224	
(D) Tortellini Arugala Tomato Soup	3	1	109	
07/04/14 (L) Mexican Tortilla Soup *GF*	13	3	386	
(D) Vegetarian Summer Lentil Soup *GF*	6	0	177	
07/05/14 (L) Tuscan Onion Soup w/Pancetta Bacon *GF*	5	1	**421**	*****
(D) Chilled Carrot and Lime Soup *GF*	2	0	190	
07/06/14 (Brunch) Chilled Raspberry Soup	3	**8**	37	*****(near miss)
(Supper) Chicken & Brown Rice Soup *GF*	7	0	256	
07/07/14 (L) Black Bean Soup	12	1	**618**	*****
(D) Ginger Chicken Noodle Soup	14	1	219	
07/08/14 (L) Cauliflower Bacon & Cheddar Soup	12	5	275	
(D) Cream of Tomato Soup *GF*	3	3	**460**	*****
07/09/14 (L) Beef Minestrone Soup	3	0	202	
(D) Miso Soup	3	1	**610**	*****
07/10/14 (L) Turkey Gumbo Soup *GF*	5	0	307	
(D) Vegan Split Pea Soup *GF*	4	0	117	
07/11/14 (L) Chicken Noodle Soup	6	0	130	
(D) Italian Wedding Soup	23	2	187	
07/12/14 (L) Cream of Spinach Soup *GF*	2	1	146	
(D) Chilled Gazpacho Soup *GF*	1	0	200	
07/13/14 (Brunch) Manhattan Clam Chowder *GF*	5	0	209	
(Supper) Potato and Pesto Soup	8	3	334	
07/14/14 (L) Black Bean & Corn Soup *GF*	10	1	174	
(D) Chilled Peach Soup *GF*	4	**25**	67	*****
07/15/14 (L) Summer Lentil Soup *GF*	6	0	142	
(D) Vegetable Barley Soup	2	0	32	

ADDENDUM, SEPTEMBER 14, 2014

Following the above report made on July 23, 2014, Dining Services replaced five Spring/Summer menu cycle Nutritionally Unsatisfactory soups with Nutritionally Satisfactory soups. These replacements have a salutary impact on our analysis, as we detail below, and affect positively the overall record for the Spring/Summer menu cycle.

Soups replaced, with the dates (as in Table 1) they were served and their replacements, each with their nutritional values for Saturated Fat and Sodium per serving (nutritionally unsatisfactory values are in **bold**), are as follows:

Week 2, Day 7, 06/24/14, dinner: Hot and Sour Soup (1g Sat. Fat, **437** mg Sodium) replaced by Hot and Sour Vegetarian Soup (0g Sat. Fat, 251mg Sodium)
Week 3, Day 1, 06/25/14, lunch: Creamy Carrot Coconut Soup (**13**g Sat. Fat, 152 mg Sodium) replaced by Herbed Carrot Soup (0g Sat. Fat, 36mg Sodium)
Week 4, Day 4, 07/05/14, lunch: Tuscan Onion Soup w/ Pancetta Bacon (1g Sat. Fat, **421**mg Sodium) replaced by French Onion Soup (2g Sat. Fat, 250mg Sodium)
Week 4, Day 6, 07/07/14, lunch: Black Bean Soup (1g Sat. Fat, **618**mg Sodium) replaced by Colonial Navy Bean Soup (0g Sat. Fat, 271mg Sodium)
Week 5, Day 1, 07/09/14, dinner: Miso Soup (1g Sat. Fat, **610**mg Sodium) replaced by Vegetable Soup (0g Sat. Fat, 98mg Sodium)

These changes decreased the percent Nutritionally Unsatisfactory soups in the 2014 Spring/Summer menu cycle from 13 out of a total of 70 soups or 19% to 8 out of 70 soups or 11%. If the four "near misses" identified in Table 1 are ignored, then the percent Nutritionally Satisfactory soups in the 2014 is reduced to 4 out of 70 soups or 6%. (See Note below.)

Thanks go to Greg Zehe, Director of Dining Services, Scott Stonestreet, Chef/Production Manager of Dining Services, and Sue Campbell, Dietician/Community Nutritionist, who were key persons leading to this significant nutritional advance for the Kendal at Oberlin community. This step taken by Dining Services is deeply appreciated.

Note

The following Nutritionally Unsatisfactory soups, with the exception of those identified as "near misses" in Table 1 above were not replaced:

Week 1, Day 7, 06/17/14, lunch: African Bean Soup (**11**g Sat. Fat, 69mg Sodium)
Week 2, Day 5, 06/22/14, supper: New England Clam Chowder (**11**g Sat. Fat, 155mg Sodium**)**
Week 4, Day7, 07/08/14, dinner: Cream of Tomato Soup (3g Sat. Fat, **460**mg Sodium)
Week 5, Day6, 07/14/14, dinner: Chilled Peach Soup (**25**g Sat. Fat, 67mg Sodium)

Dining Services has already moved in a major way toward the ideal of a nutritionally perfect record for soups in the Spring/Summer menu cycle. Ignoring "near misses" would require replacing only the above four Nutritionally Unsatisfactory soups to achieve a newsworthy nutritionally perfect record.

SG September 24, 2014