

TABLE 1.—SODIUM CONSUMPTION SCENARIO ANALYSIS FOR SAMPLE 1 MEALS AND MAIN DISHES

Scenario	Healthy Brand Sodium mg (Market Share)	Claims Brand 1 Sodium mg (Market Share)	Claims Brand 2 Sodium mg (Market Share)	Other Sodium mg (Market Share)	Average Sodium mg
(1) Present market	551 (.45)	593 (.52)	722 (.03)	856 (0)	579
(2) Perfect reformulation (option 1)	476 (.45)	593 (.52)	722 (.03)	856 (0)	544
(3) Switch point, random share loss (option 1)	476 (.45 - .142)	593 (.52 + .047)	722 (.03 + .047)	856 (.047)	579
(4) Switch point, equal share loss to claims competitors (option 1)	476 (.45 - .193)	593 (.52 + .097)	722 (.03 + .097)	856 (0)	579
(5) Reformulation up (option 2b)	600 (.45)	593 (.52)	722 (.03)	856 (0)	600
(6a) Combined total response to option 1.	480 (.45 - .113)	593 (.52 + .056)	722 (.03 + .056)	856 (0)	566
(6b) Combined total response to option 2b.	580 (.45 + .04)	593 (.52 - .02)	722 (.03 - .02)	856 (0)	588
(6) Total effect (6b–6a)	—————	—————	—————	—————	22

Since option 1, or not amending the current rule, is the baseline for exploring the effect of option 2b, the first five scenarios are designed to demonstrate how different responses to the current rule (option 1) and the proposed rule (option 2b) affect the average amount of sodium consumed. Scenarios 6a and 6b combine the responses in the previous scenarios in an attempt to capture the total effect of the proposed rule. The last row, in the last column, is the total change in sodium when comparing the proposed rule (6b) to the option 1 (6a) (scenario 6—“total effect”).

Scenario 1: The Present Market. The first-tier sodium level applies until 2006, but firms may be trying to prepare for the second-tier sodium level, causing the average amount of sodium in the “healthy” brand to be lower than it would be under the proposed rule. The average “claims” segment meal, as reported in the last column of table 1 of this document, contains 579 mg sodium, the average “healthy” brand meal contains 551 mg sodium, and several “healthy” brand meals in this sample are under the second-tier sodium level of 480 mg sodium.

Scenario 2: Perfect Reformulation. Under the very optimistic perfect reformulation assumption, where the “healthy” manufacturer could replicate every aspect of its product except the sodium level, the sodium level of the average “claims” segment meal would decrease to 544 mg ($476 \times .45 + 593 \times .52 + 722 \times .03$) under option 1. The difference between this and the current

market is 1.5 percent of the RDI of 2400 mg/day.

Scenario 3: Random Loss of Market Share. Some “healthy” brand consumers may switch to other products if manufacturers of “healthy” products cannot perfectly reformulate their products. In this scenario, the “healthy” brand loses market share to each of its competitors and to the rest of the market (“other” brands) in equal amounts. If the loss of market share is small, sodium levels will still decline under option 1. However, the average sodium level per meal and per main dish would not change if the “healthy” product lost 32 percent of its market (14 percent of the “claims” market) under these assumptions.

Scenario 4: Loss of Market Share to Claims Competitors. Consumers are likely to switch from “healthy” products to other “claims” products. Since these alternatives have less sodium than the rest of the frozen foods market, the amount of “healthy” business lost that would still leave average sodium levels lower or unchanged would be higher than in scenario 3 under option 1. If the “healthy” product lost 43 percent of its market share (which is smaller than the 45 percent of their products one major producer of “healthy” products stated the current rule would adversely affect) equally to both “claims” competitors, the average “claims” segment meal’s sodium content would be unchanged at 579 mg.

Scenario 5: Reformulation Up to First-Tier Limit. Here, we assume that only

the current belief that the second-tier restrictions will become effective discourages the “healthy” product from increasing the amount of sodium up to the first-tier limit. Therefore, under the proposed rule, every “healthy” meal and main dish would contain 600 mg of sodium per meal. These meals and main dishes would no longer be the low sodium products in the market, but they would still be the second lowest sodium products among major producers, with “claims” brand 1 slightly lower. The average meal and main dish in the “claims” market would increase to 600 mg as well, which is 21 mg per meal more than the current amount and 56 mg more than the total under scenario 2, the most optimistic, perfect reformulation total.

Scenario 6: Total Effect. Scenario 6, which is scenario 6a (combined total response to option 1) subtracted from scenario 6b (combined total response to option 2b), represents the agency’s estimate of the total effects of option 2b, which would adopt as permanent the first-tier sodium level for “healthy” meals and main dishes. In scenarios 6a and 6b, we make behavioral assumptions for both option 1 and option 2b.

Scenario 6a: Combined Total Response to Option 1. Of the “healthy” meals and main dishes in this sample, 75 percent are above and 25 percent are below the second-tier sodium level of 480 mg. If the second-tier sodium level were to take effect, we assume that the meals and main dishes already below 480 mg (25 percent of the total) would