

# Indicators of Diet Quality, Nutrition, and Health for Americans by Program Participation Status, 2011–2016: SNAP Report



## Appendix G. Matched Participant Group Findings



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## Appendix G. Matched Participant Group Findings



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## Appendix G. Matched Participant Group Findings

**Table G.1. Healthy Eating Index 2015 Scores for Matched SNAP Participants and Income-Eligible Nonparticipants by Age Group and Gender**

| Healthy Eating Index 2015 (HEI-2015) Component by Subgroup | Maximum Possible HEI Score | SNAP Participants |                | Matched Income-Eligible Nonparticipants |                |
|--|----------------------------|-------------------|----------------|---|----------------|
|  |                            | Mean Score        | Standard Error | Mean Score                              | Standard Error |
| <b>All individuals 2+ years old</b>                        |                            |                   |                |   |                |
| <b>Both genders</b>  |                            |                   |                |   |                |
| <b>Sample size</b>   | –                          | 2,863             | –              | 1,282                                   | –              |
| Total fruit  | 5                          | 2.6               | (0.12)         | 2.7                                     | (0.14)         |
| Whole fruit  | 5                          | 2.8               | (0.15)         | 3.3 *                                   | (0.17)         |
| Total vegetables   | 5                          | 2.8               | (0.08)         | 3.4 ***                                 | (0.10)         |
| Greens and beans   | 5                          | 2.5               | (0.16)         | 2.9                                     | (0.19)         |
| Whole grains   | 10                         | 2.2               | (0.09)         | 2.5                                     | (0.15)         |
| Dairy  | 10                         | 6.5               | (0.16)         | 6.1                                     | (0.18)         |
| Total protein foods  | 5                          | 4.9               | (0.02)         | 4.8                                     | (0.05)         |
| Seafood and plant proteins                                 | 5                          | 4.0               | (0.17)         | 4.1                                     | (0.13)         |
| Fatty acids  | 10                         | 4.3               | (0.16)         | 4.6                                     | (0.21)         |
| Refined grains   | 10                         | 5.9               | (0.18)         | 5.3 *                                   | (0.23)         |
| Sodium   | 10                         | 4.6               | (0.16)         | 4.1                                     | (0.21)         |
| Added sugars   | 10                         | 5.2               | (0.19)         | 6.2 ***                                 | (0.21)         |
| Saturated fats   | 10                         | 6.2               | (0.14)         | 6.3                                     | (0.19)         |
| <b>Total HEI-2015 Score</b>                                | 100                        | 54.4              | (0.68)         | 56.3                                    | (0.79)         |
| <b>Men and boys</b>  |                            |                   |                |   |                |
| <b>Sample size</b>   | –                          | 1,376             | –              | 657                                     | –              |
| Total fruit  | 5                          | 2.4               | (0.19)         | 2.4                                     | (0.17)         |
| Whole fruit  | 5                          | 2.6               | (0.22)         | 2.8                                     | (0.25)         |
| Total vegetables   | 5                          | 2.6               | (0.10)         | 3.2 ***                                 | (0.14)         |
| Greens and beans   | 5                          | 2.2               | (0.22)         | 2.9                                     | (0.29)         |
| Whole grains   | 10                         | 1.9               | (0.11)         | 2.0                                     | (0.17)         |
| Dairy  | 10                         | 6.5               | (0.25)         | 6.3                                     | (0.28)         |
| Total protein foods  | 5                          | 4.9               | (0.03)         | 4.8                                     | (0.08)         |
| Seafood and plant proteins                                 | 5                          | 3.8               | (0.28)         | 4.1                                     | (0.19)         |
| Fatty acids  | 10                         | 4.3               | (0.21)         | 3.9                                     | (0.26)         |
| Refined grains   | 10                         | 6.0               | (0.24)         | 5.5                                     | (0.31)         |
| Sodium   | 10                         | 4.8               | (0.25)         | 4.1 *                                   | (0.28)         |
| Added sugars   | 10                         | 5.3               | (0.32)         | 6.2 *                                   | (0.29)         |
| Saturated fats   | 10                         | 6.5               | (0.19)         | 5.9 *                                   | (0.27)         |
| <b>Total HEI-2015 Score</b>                                | 100                        | 53.8              | (0.88)         | 54.1                                    | (0.92)         |

| Healthy Eating Index<br>2015 (HEI-2015)<br>Component by Subgroup | Maximum<br>Possible<br>HEI Score | SNAP Participants |                   | Matched Income-Eligible<br>Nonparticipants |                   |
|--|----------------------------------|-------------------|-------------------|--|-------------------|
|  |                                  | Mean Score        | Standard<br>Error | Mean Score                                 | Standard<br>Error |
| <b>Women and girls</b>   |                                  |                   |                   |  |                   |
| <i>Sample size</i>   | –                                | 1,487             | –                 | 625  | –                 |
| Total fruit  | 5                                | 2.7               | (0.16)            | 3.0  | (0.22)            |
| Whole fruit  | 5                                | 3.0               | (0.20)            | 3.8 **                                     | (0.24)            |
| Total vegetables   | 5                                | 3.1               | (0.12)            | 3.6 **                                     | (0.14)            |
| Greens and beans   | 5                                | 2.7               | (0.23)            | 3.0  | (0.24)            |
| Whole grains   | 10                               | 2.5               | (0.15)            | 2.9  | (0.23)            |
| Dairy  | 10                               | 6.4               | (0.20)            | 5.8 *                                      | (0.23)            |
| Total protein foods  | 5                                | 4.9               | (0.04)            | 4.8  | (0.05)            |
| Seafood and plant<br>proteins                                    | 5                                | 4.2               | (0.20)            | 4.1  | (0.19)            |
| Fatty acids  | 10                               | 4.3               | (0.23)            | 5.3 *                                      | (0.32)            |
| Refined grains   | 10                               | 5.9               | (0.27)            | 5.1  | (0.33)            |
| Sodium   | 10                               | 4.3               | (0.22)            | 4.1  | (0.31)            |
| Added sugars   | 10                               | 5.1               | (0.22)            | 6.2 **                                     | (0.31)            |
| Saturated fats   | 10                               | 5.9               | (0.21)            | 6.8 *                                      | (0.28)            |
| <b>Total HEI-2015 Score</b>                                      | 100                              | 55.0              | (1.03)            | 58.5 *                                     | (1.28)            |
| <b>Children 2–18 years old</b>                                   |                                  |                   |                   |  |                   |
| <b>Both genders</b>  |                                  |                   |                   |  |                   |
| <i>Sample size</i>   | –                                | 1,540             | –                 | 433  | –                 |
| Total fruit  | 5                                | 3.2               | (0.13)            | 3.2  | (0.20)            |
| Whole fruit  | 5                                | 3.7               | (0.19)            | 3.8  | (0.27)            |
| Total vegetables   | 5                                | 2.3               | (0.07)            | 2.5  | (0.15)            |
| Greens and beans   | 5                                | 2.2               | (0.17)            | 1.3 ***                                    | (0.17)            |
| Whole grains   | 10                               | 2.5               | (0.12)            | 2.9  | (0.29)            |
| Dairy  | 10                               | 8.4               | (0.18)            | 8.3  | (0.31)            |
| Total protein foods  | 5                                | 4.5               | (0.08)            | 4.4  | (0.18)            |
| Seafood and plant<br>proteins                                    | 5                                | 3.2               | (0.21)            | 2.6  | (0.31)            |
| Fatty acids  | 10                               | 3.3               | (0.20)            | 3.9  | (0.28)            |
| Refined grains   | 10                               | 4.5               | (0.18)            | 5.3  | (0.39)            |
| Sodium   | 10                               | 4.6               | (0.17)            | 4.6  | (0.36)            |
| Added sugars   | 10                               | 5.5               | (0.18)            | 5.6  | (0.37)            |
| Saturated fats   | 10                               | 5.3               | (0.17)            | 6.1 *                                      | (0.30)            |
| <b>Total HEI-2015 Score</b>                                      | 100                              | 53.2              | (0.69)            | 54.6                                       | (1.17)            |

| Healthy Eating Index 2015<br>(HEI-2015) Component by<br>Subgroup | Maximum<br>Possible<br>HEI Score | SNAP Participants |                   | Matched Income-Eligible<br>Nonparticipants |                   |
|--|----------------------------------|-------------------|-------------------|--|-------------------|
|  |                                  | Mean Score        | Standard<br>Error | Mean Score                                 | Standard<br>Error |
| <b>Boys</b>  |                                  |                   |                   |  |                   |
| <b>Sample size</b>   | –                                | 799               | –                 | 218  | –                 |
| Total fruit  | 5                                | 3.1               | (0.17)            | 2.9  | (0.24)            |
| Whole fruit  | 5                                | 3.7               | (0.27)            | 3.3  | (0.35)            |
| Total vegetables   | 5                                | 2.2               | (0.10)            | 2.2  | (0.19)            |
| Greens and beans   | 5                                | 1.9               | (0.19)            | 1.4  | (0.23)            |
| Whole grains   | 10                               | 2.8               | (0.17)            | 2.7  | (0.36)            |
| Dairy  | 10                               | 8.7               | (0.27)            | 8.5  | (0.44)            |
| Total protein foods  | 5                                | 4.6               | (0.10)            | 4.5  | (0.28)            |
| Seafood and plant proteins                                       | 5                                | 2.7               | (0.27)            | 3.0  | (0.48)            |
| Fatty acids  | 10                               | 3.1               | (0.27)            | 2.8  | (0.35)            |
| Refined grains   | 10                               | 4.4               | (0.23)            | 4.8  | (0.60)            |
| Sodium   | 10                               | 4.4               | (0.21)            | 4.2  | (0.53)            |
| Added sugars   | 10                               | 5.6               | (0.29)            | 5.6  | (0.46)            |
| Saturated fats   | 10                               | 5.4               | (0.22)            | 5.4  | (0.44)            |
| <b>Total HEI-2015 Score</b>                                      | 100                              | 52.6              | (0.91)            | 51.4                                       | (1.71)            |
| <b>Girls</b>   |                                  |                   |                   |  |                   |
| <b>Sample size</b>   | –                                | 741               | –                 | 215  | –                 |
| Total fruit  | 5                                | 3.2               | (0.19)            | 3.6  | (0.31)            |
| Whole fruit  | 5                                | 3.7               | (0.27)            | 4.3  | (0.40)            |
| Total vegetables   | 5                                | 2.3               | (0.09)            | 2.8 *                                      | (0.22)            |
| Greens and beans   | 5                                | 2.4               | (0.29)            | 1.2 **                                     | (0.25)            |
| Whole grains   | 10                               | 2.2               | (0.15)            | 3.1  | (0.46)            |
| Dairy  | 10                               | 8.1               | (0.25)            | 8.1  | (0.42)            |
| Total protein foods  | 5                                | 4.5               | (0.13)            | 4.3  | (0.21)            |
| Seafood and plant proteins                                       | 5                                | 3.8               | (0.32)            | 2.3 **                                     | (0.38)            |
| Fatty acids  | 10                               | 3.5               | (0.30)            | 5.1 **                                     | (0.44)            |
| Refined grains   | 10                               | 4.6               | (0.27)            | 5.7  | (0.51)            |
| Sodium   | 10                               | 4.9               | (0.27)            | 5.0  | (0.49)            |
| Added sugars   | 10                               | 5.5               | (0.21)            | 5.6  | (0.58)            |
| Saturated fats   | 10                               | 5.1               | (0.26)            | 6.8 ***                                    | (0.41)            |
| <b>Total HEI-2015 Score</b>                                      | 100                              | 53.8              | (1.05)            | 57.9 *                                     | (1.58)            |
| <b>Adults 19–59 years old</b>                                    |                                  |                   |                   |  |                   |
| <b>Both genders</b>  |                                  |                   |                   |  |                   |
| <b>Sample size</b>   | –                                | 1,013             | –                 | 638  | –                 |
| Total fruit  | 5                                | 2.1               | (0.19)            | 2.5  | (0.22)            |
| Whole fruit  | 5                                | 2.1               | (0.23)            | 3.0 **                                     | (0.25)            |
| Total vegetables   | 5                                | 2.7               | (0.11)            | 3.6 ***                                    | (0.15)            |

| Healthy Eating Index 2015<br>(HEI-2015) Component by<br>Subgroup | Maximum<br>Possible<br>HEI Score | SNAP Participants |                   | Matched Income-Eligible<br>Nonparticipants |                   |
|--|----------------------------------|-------------------|-------------------|--|-------------------|
|  |                                  | Mean Score        | Standard<br>Error | Mean Score                                 | Standard<br>Error |
| Greens and beans   | 5                                | 2.2               | (0.23)            | 3.3 **                                     | (0.28)            |
| Whole grains   | 10                               | 1.7               | (0.12)            | 1.9  | (0.18)            |
| Dairy  | 10                               | 5.8               | (0.22)            | 5.2  | (0.24)            |
| Total protein foods  | 5                                | 5.0               | (0.03)            | 5.0  | (0.04)            |
| Seafood and plant proteins                                       | 5                                | 4.2               | (0.26)            | 4.4  | (0.19)            |
| Fatty acids  | 10                               | 4.6               | (0.21)            | 4.8  | (0.30)            |
| Refined grains   | 10                               | 6.3               | (0.28)            | 5.0 **                                     | (0.32)            |
| Sodium   | 10                               | 4.8               | (0.25)            | 4.4  | (0.30)            |
| Added sugars   | 10                               | 4.4               | (0.31)            | 6.0 ***                                    | (0.32)            |
| Saturated fats   | 10                               | 6.5               | (0.20)            | 6.6  | (0.27)            |
| <b>Total HEI-2015 Score</b>                                      | 100                              | 52.5              | (1.02)            | 55.7 *                                     | (1.17)            |
| <b>Men</b>   |                                  |                   |                   |  |                   |
| <b>Sample size</b>   | –                                | 447               | –                 | 329  | –                 |
| Total fruit  | 5                                | 2.0               | (0.28)            | 2.1  | (0.26)            |
| Whole fruit  | 5                                | 2.0               | (0.33)            | 2.5  | (0.37)            |
| Total vegetables   | 5                                | 2.5               | (0.14)            | 3.4 ***                                    | (0.21)            |
| Greens and beans   | 5                                | 2.1               | (0.32)            | 3.2 *                                      | (0.45)            |
| Whole grains   | 10                               | 1.4               | (0.15)            | 1.3  | (0.22)            |
| Dairy  | 10                               | 5.8               | (0.34)            | 5.6  | (0.39)            |
| Total protein foods  | 5                                | 5.0               | (0.03)            | 5.0  | (0.08)            |
| Seafood and plant proteins                                       | 5                                | 4.0               | (0.44)            | 4.3  | (0.27)            |
| Fatty acids  | 10                               | 4.6               | (0.31)            | 4.0  | (0.37)            |
| Refined grains   | 10                               | 6.5               | (0.36)            | 5.5  | (0.42)            |
| Sodium   | 10                               | 5.4               | (0.38)            | 4.6  | (0.38)            |
| Added sugars   | 10                               | 4.6               | (0.52)            | 5.8  | (0.44)            |
| Saturated fats   | 10                               | 6.9               | (0.28)            | 6.1  | (0.37)            |
| <b>Total HEI-2015 Score</b>                                      | 100                              | 52.8              | (1.32)            | 53.4                                       | (1.28)            |
| <b>Women</b>   |                                  |                   |                   |  |                   |
| <b>Sample size</b>   | –                                | 566               | –                 | 309  | –                 |
| Total fruit  | 5                                | 2.1               | (0.25)            | 2.9  | (0.35)            |
| Whole fruit  | 5                                | 2.1               | (0.31)            | 3.5 **                                     | (0.34)            |
| Total vegetables   | 5                                | 3.0               | (0.16)            | 3.8 **                                     | (0.20)            |
| Greens and beans   | 5                                | 2.4               | (0.33)            | 3.4 *                                      | (0.35)            |
| Whole grains   | 10                               | 2.0               | (0.19)            | 2.5  | (0.29)            |
| Dairy  | 10                               | 5.9               | (0.28)            | 4.8 **                                     | (0.29)            |
| Total protein foods  | 5                                | 5.0               | (0.04)            | 5.0  | (0.04)            |
| Seafood and plant proteins                                       | 5                                | 4.3               | (0.28)            | 4.5  | (0.27)            |
| Fatty acids  | 10                               | 4.5               | (0.29)            | 5.6  | (0.47)            |

| Healthy Eating Index 2015<br>(HEI-2015) Component by<br>Subgroup | Maximum<br>Possible<br>HEI Score | SNAP Participants |                   | Matched Income-Eligible<br>Nonparticipants |                   |
|--|----------------------------------|-------------------|-------------------|--|-------------------|
|  |                                  | Mean Score        | Standard<br>Error | Mean Score                                 | Standard<br>Error |
| Refined grains   | 10                               | 6.1               | (0.42)            | 4.5 *                                      | (0.49)            |
| Sodium   | 10                               | 4.3               | (0.32)            | 4.3  | (0.45)            |
| Added sugars   | 10                               | 4.3               | (0.35)            | 6.1 **                                     | (0.47)            |
| Saturated fats   | 10                               | 6.1               | (0.27)            | 7.1  | (0.40)            |
| <b>Total HEI-2015 Score</b>                                      | 100                              | 52.1              | (1.55)            | 57.9 *                                     | (1.95)            |
| <b>Older adults 60+ years old</b>                                |                                  |                   |                   |  |                   |
| <b>Both genders</b>  |                                  |                   |                   |  |                   |
| <b>Sample size</b>   | –                                | 310               | –                 | 211  | –                 |
| Total fruit  | 5                                | 3.4               | (0.28)            | 2.8  | (0.23)            |
| Whole fruit  | 5                                | 4.0               | (0.30)            | 3.7  | (0.33)            |
| Total vegetables   | 5                                | 3.7               | (0.24)            | 4.0  | (0.23)            |
| Greens and beans   | 5                                | 3.6               | (0.44)            | 4.0  | (0.43)            |
| Whole grains   | 10                               | 3.2               | (0.30)            | 3.6  | (0.40)            |
| Dairy  | 10                               | 6.2               | (0.45)            | 5.8  | (0.47)            |
| Total protein foods  | 5                                | 5.0               | (0.02)            | 5.0  | (0.01)            |
| Seafood and plant proteins                                       | 5                                | 4.5               | (0.32)            | 4.9  | (0.16)            |
| Fatty acids  | 10                               | 4.9               | (0.46)            | 4.8  | (0.49)            |
| Refined grains   | 10                               | 6.5               | (0.38)            | 6.0  | (0.51)            |
| Sodium   | 10                               | 3.6               | (0.38)            | 2.4 *                                      | (0.47)            |
| Added sugars   | 10                               | 6.9               | (0.27)            | 7.8 *                                      | (0.31)            |
| Saturated fats   | 10                               | 6.4               | (0.41)            | 5.9  | (0.44)            |
| <b>Total HEI-2015 Score</b>                                      | 100                              | 61.9              | (1.61)            | 60.6                                       | (1.66)            |
| <b>Men</b>   |                                  |                   |                   |  |                   |
| <b>Sample size</b>   | –                                | 130               | –                 | 110  | –                 |
| Total fruit  | 5                                | 2.7               | (0.50)            | 2.6  | (0.32)            |
| Whole fruit  | 5                                | 3.0               | (0.51)            | 3.1  | (0.44)            |
| Total vegetables   | 5                                | 3.3               | (0.31)            | 4.2  | (0.35)            |
| Greens and beans   | 5                                | 3.2               | (0.61)            | 3.8  | (0.63)            |
| Whole grains   | 10                               | 2.3               | (0.29)            | 3.1  | (0.45)            |
| Dairy  | 10                               | 6.2               | (0.81)            | 5.7  | (0.70)            |
| Total protein foods  | 5                                | 5.0               | (0.02)            | 5.0  | (0.02)            |
| Seafood and plant proteins                                       | 5                                | 4.4               | (0.46)            | 5.0  | (0.08)            |
| Fatty acids  | 10                               | 5.1               | (0.46)            | 4.8  | (0.63)            |
| Refined grains   | 10                               | 6.2               | (0.57)            | 6.4  | (0.71)            |
| Sodium   | 10                               | 3.6               | (0.56)            | 2.3  | (0.66)            |
| Added sugars   | 10                               | 7.1               | (0.45)            | 8.5 *                                      | (0.45)            |
| Saturated fats   | 10                               | 6.7               | (0.46)            | 5.8  | (0.63)            |
| <b>Total HEI-2015 Score</b>                                      | 100                              | 59.1              | (2.11)            | 60.4                                       | (1.94)            |

| Healthy Eating Index<br>2015 (HEI-2015)<br>Component by Subgroup | Maximum<br>Possible<br>HEI Score | SNAP Participants |                   | Matched Income-Eligible<br>Nonparticipants |                   |
|--|----------------------------------|-------------------|-------------------|--|-------------------|
|  |                                  | Mean Score        | Standard<br>Error | Mean Score                                 | Standard<br>Error |
| <b>Women</b>   |                                  |                   |                   |  |                   |
| <b>Sample size</b>   | –                                | 180               | –                 | 101  | –                 |
| Total fruit  | 5                                | 3.9               | (0.32)            | 2.9 *                                      | (0.33)            |
| Whole fruit  | 5                                | 4.7               | (0.34)            | 4.2  | (0.48)            |
| Total vegetables   | 5                                | 4.0               | (0.35)            | 3.8  | (0.30)            |
| Greens and beans   | 5                                | 3.9               | (0.61)            | 4.1  | (0.58)            |
| Whole grains   | 10                               | 3.9               | (0.48)            | 3.9  | (0.63)            |
| Dairy  | 10                               | 6.1               | (0.48)            | 6.0  | (0.64)            |
| Total protein foods  | 5                                | 5.0               | (0.04)            | 5.0  | (0.01)            |
| Seafood and plant<br>proteins                                    | 5                                | 4.5               | (0.44)            | 4.9  | (0.28)            |
| Fatty acids  | 10                               | 4.7               | (0.73)            | 4.7  | (0.72)            |
| Refined grains   | 10                               | 6.7               | (0.51)            | 5.8  | (0.71)            |
| Sodium   | 10                               | 3.6               | (0.52)            | 2.5  | (0.65)            |
| Added sugars   | 10                               | 6.8               | (0.34)            | 7.2  | (0.42)            |
| Saturated fats   | 10                               | 6.2               | (0.63)            | 6.0  | (0.62)            |
| <b>Total HEI-2015 Score</b>                                      | 100                              | 64.1              | (2.36)            | 60.8                                       | (2.56)            |

Notes: Estimates are based on the day 1 dietary recall. Mean component scores may not sum to total score due to rounding. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population, such that different age distributions of SNAP participants and nonparticipants are accounted for. Significant differences in estimates are noted by \* $p < .05$ , \*\* $p < .01$ , or \*\*\* $p < .001$  and are based on a  $t$ -test for difference in means between SNAP participants and matched income-eligible nonparticipants. Characteristics retained in the final propensity score estimation model included wave of NHANES; gender; race/ethnicity; age; US citizenship; education (highest grade completed); total number of people in household; ratio of income to poverty; annual household income; annual family income; monthly family income; total savings/cash assets for the family; presence of income from Supplemental Security Income; presence of income from State/county cash assistance; and money spent at supermarket/grocery store, on nonfood items, at other stores, on eating out, and on carryout/delivered foods. The match was completed with replacement using the SAS macro %PSMatching. SNAP participants consist of individuals in households that at the time of data collection reported receiving SNAP benefits.

– Denotes not applicable

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls; Food Pattern Equivalents Database 2011–2012, 2013–2014, and 2015–2016. Sample includes NHANES respondents aged 2 and older with complete day 1 dietary recall data. Sample excludes pregnant and breastfeeding women 20–44 years old; pregnant and breastfeeding women outside of these age ranges could not be identified in the data.

**Table G.2. Body Mass Index Categories for Matched SNAP Participants and Income-Eligible Nonparticipants by Age Group and Gender**

| Body Mass Index Categories By Subgroup | SNAP Participants |                | Matched Income-Eligible Nonparticipants |                |
|--|-------------------|----------------|---|----------------|
|  | Percent           | Standard Error | Percent                                 | Standard Error |
| <b>All individuals 2+ years old</b>    |                   |                |   |                |
| <b>Both genders</b>                    |                   |                |   |                |
| <i>Sample size</i>                     | 2,863             | –              | 1,282                                   | –              |
| Underweight                            | 2.96              | (0.37)         | 2.26                                    | (0.43)         |
| Normal weight                          | 32.85             | (0.95)         | 33.19                                   | (1.27)         |
| Overweight                             | 26.67             | (1.00)         | 29.86                                   | (1.35)         |
| Obese                                  | 37.52             | (1.06)         | 34.69                                   | (1.40)         |
| <b>Men and boys</b>                    |                   |                |   |                |
| <i>Sample size</i>                     | 1,376             | –              | 657                                     | –              |
| Underweight                            | 4.47              | (0.68)         | 2.27 *                                  | (0.55)         |
| Normal weight                          | 37.27             | (1.48)         | 35.37                                   | (1.81)         |
| Overweight                             | 29.61             | (1.53)         | 31.69                                   | (1.90)         |
| Obese                                  | 28.65             | (1.53)         | 30.66                                   | (1.90)         |
| <b>Women and girls</b>                 |                   |                |   |                |
| <i>Sample size</i>                     | 1,487             | –              | 625                                     | –              |
| Underweight                            | 1.51              | (0.34)         | 2.25                                    | (0.65)         |
| Normal weight                          | 28.58             | (1.20)         | 31.08                                   | (1.79)         |
| Overweight                             | 23.83             | (1.31)         | 28.09                                   | (1.91)         |
| Obese                                  | 46.08             | (1.48)         | 38.58 **                                | (2.04)         |
| <b>Children 2–18 years old</b>         |                   |                |   |                |
| <b>Both genders</b>                    |                   |                |   |                |
| <i>Sample size</i>                     | 1,540             | –              | 433                                     | –              |
| Underweight                            | 2.82              | (0.43)         | 2.05                                    | (0.69)         |
| Normal weight                          | 60.46             | (1.32)         | 56.33                                   | (2.38)         |
| Overweight                             | 16.95             | (1.02)         | 16.90                                   | (1.81)         |
| Obese                                  | 19.77             | (1.09)         | 24.72 *                                 | (2.07)         |
| <b>Boys</b>                            |                   |                |   |                |
| <i>Sample size</i>                     | 799               | –              | 218                                     | –              |
| Underweight                            | 3.73              | (0.70)         | 3.53                                    | (1.27)         |
| Normal weight                          | 62.07             | (1.83)         | 57.80                                   | (3.37)         |
| Overweight                             | 16.91             | (1.41)         | 17.16                                   | (2.57)         |
| Obese                                  | 17.29             | (1.44)         | 21.51                                   | (2.74)         |
| <b>Girls</b>                           |                   |                |   |                |
| <i>Sample size</i>                     | 741               | –              | 215                                     | –              |
| Underweight                            | 1.87              | (0.49)         | 0.50 *                                  | (0.50)         |
| Normal weight                          | 58.77             | (1.91)         | 54.80                                   | (3.36)         |
| Overweight                             | 16.98             | (1.49)         | 16.62                                   | (2.54)         |
| Obese                                  | 22.38             | (1.65)         | 28.09                                   | (3.11)         |

| Body Mass Index<br>Categories By Subgroup | SNAP Participants |                   | Matched Income-Eligible<br>Nonparticipants |                   |
|---|-------------------|-------------------|--|-------------------|
|   | Percent           | Standard<br>Error | Percent                                    | Standard<br>Error |
| <b>Adults 19–59 years old</b>             |                   |                   |  |                   |
| <b>Both genders</b>                       |                   |                   |  |                   |
| <i>Sample size</i>                        | 1,013             | –                 | 638  | –                 |
| Underweight                               | 2.40              | (0.47)            | 2.03                                       | (0.54)            |
| Normal weight                             | 24.98             | (1.36)            | 27.62                                      | (1.74)            |
| Overweight                                | 28.40             | (1.43)            | 32.63                                      | (1.91)            |
| Obese                                     | 44.21             | (1.55)            | 37.71 **                                   | (1.97)            |
| <b>Men</b>                                |                   |                   |  |                   |
| <i>Sample size</i>                        | 447               | –                 | 329  | –                 |
| Underweight                               | 3.06              | (0.77)            | 1.88                                       | (0.69)            |
| Normal weight                             | 31.24             | (2.17)            | 28.86                                      | (2.46)            |
| Overweight                                | 31.96             | (2.20)            | 35.34                                      | (2.73)            |
| Obese                                     | 33.74             | (2.26)            | 33.92                                      | (2.72)            |
| <b>Women</b>                              |                   |                   |  |                   |
| <i>Sample size</i>                        | 566               | –                 | 309  | –                 |
| Underweight                               | 1.74 u            | (0.53)            | 2.19                                       | (0.84)            |
| Normal weight                             | 18.78             | (1.65)            | 26.40 *                                    | (2.47)            |
| Overweight                                | 24.88             | (1.84)            | 29.96                                      | (2.68)            |
| Obese                                     | 54.60             | (2.11)            | 41.46 ***                                  | (2.85)            |
| <b>Older adults 60+ years old</b>         |                   |                   |  |                   |
| <b>Both genders</b>                       |                   |                   |  |                   |
| <i>Sample size</i>                        | 310               | –                 | 211  | –                 |
| Underweight                               | 4.84              | (1.25)            | 3.21                                       | (1.27)            |
| Normal weight                             | 22.47             | (2.35)            | 21.37                                      | (2.89)            |
| Overweight                                | 33.44             | (2.74)            | 37.52                                      | (3.45)            |
| Obese                                     | 39.24             | (2.74)            | 37.90                                      | (3.44)            |
| <b>Men</b>                                |                   |                   |  |                   |
| <i>Sample size</i>                        | 130               | –                 | 110  | –                 |
| Underweight                               | 10.26             | (2.74)            | 1.82 **                                    | (1.20)            |
| Normal weight                             | 22.41             | (3.70)            | 25.50                                      | (4.26)            |
| Overweight                                | 39.71             | (4.41)            | 40.04                                      | (4.81)            |
| Obese                                     | 27.62             | (3.99)            | 32.64                                      | (4.59)            |

| Body Mass Index Categories By Subgroup | SNAP Participants |                | Matched Income-Eligible Nonparticipants |                |
|--|-------------------|----------------|---|----------------|
|  | Percent           | Standard Error | Percent                                 | Standard Error |
| <b>Women</b>                           |                   |                |   |                |
| <i>Sample size</i>                     | 180               | –              | 101                                     | –              |
| Underweight                            | 0.48 <b>u</b>     | (0.49)         | 4.32                                    | (2.07)         |
| Normal weight                          | 22.52             | (3.03)         | 18.05                                   | (3.92)         |
| Overweight                             | 28.41             | (3.44)         | 35.50                                   | (4.87)         |
| Obese                                  | 48.59             | (3.77)         | 42.13                                   | (4.99)         |

Notes: For children, weight categories are defined as follows: underweight if Body Mass Index (BMI) for age is < the 5th percentile on the Centers for Disease Control and Prevention BMI for age growth chart; healthy weight if BMI for age ≥ the 5th and < the 85th percentiles; overweight if BMI for age ≥ the 85th and < the 95th percentiles; and obese if BMI for age ≥ the 95th percentile. For adults, underweight is defined as BMI < 18.5; healthy weight as BMI ≥ 18.5 and < 25; overweight as BMI ≥ 25 and < 30; and obese as BMI ≥ 30. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population, such that different age distributions of SNAP participants and nonparticipants are accounted for. Significant differences in estimates are noted by \* $p < .05$ , \*\* $p < .01$ , or \*\*\* $p < .001$  and based on a  $t$ -test for difference in proportions between SNAP participants and matched income-eligible nonparticipants. Characteristics retained in the final propensity score estimation model included wave of NHANES; gender; race/ethnicity; age; US citizenship; education (highest grade completed); total number of people in household; ratio of income to poverty; annual household income; annual family income; monthly family income; total savings/cash assets for the family; presence of income from Supplemental Security Income; presence of income from State/county cash assistance; and money spent at supermarket/grocery store, on nonfood items, at other stores, on eating out, and on carryout/delivered foods. The match was completed with replacement using the SAS macro %PSMatching. SNAP participants consist of individuals in households that at the time of data collection reported receiving SNAP benefits.

– Denotes not applicable

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 body measures data. Sample includes NHANES respondents 2 years old or older with complete day 1 dietary recall data and weight and height data. Sample excludes pregnant and breastfeeding women 20–44 years old; pregnant and breastfeeding women outside of these age ranges could not be identified in the data.

**Table G.3. Blood Pressure Categories for Matched SNAP Participants and Income-Eligible Nonparticipants by Age Group and Gender**

| Blood Pressure Categories<br>By Subgroup | SNAP Participants |                   | Matched Income-Eligible<br>Nonparticipants |                   |
|--|-------------------|-------------------|--|-------------------|
|  | Percent           | Standard<br>Error | Percent                                    | Standard<br>Error |
| <b>All individuals 8+ years old</b>      |                   |                   |  |                   |
| <b>Both genders</b>                      |                   |                   |  |                   |
| <i>Sample size</i>                       | 2,154             | –                 | 1,138                                      | –                 |
| Normal                                   | 51.16             | (1.10)            | 54.31                                      | (1.40)            |
| Elevated                                 | 15.77             | (0.91)            | 13.27                                      | (1.06)            |
| Hypertension stage 1                     | 17.03             | (0.94)            | 20.56 *                                    | (1.26)            |
| Hypertension stage 2                     | 14.88             | (0.87)            | 11.33 **                                   | (0.97)            |
| Hypertensive crisis                      | 1.16              | (0.28)            | 0.53                                       | (0.25)            |
| <b>Men and boys</b>                      |                   |                   |  |                   |
| <i>Sample size</i>                       | 1,015             | –                 | 583  | –                 |
| Normal                                   | 46.77             | (1.67)            | 50.37                                      | (2.09)            |
| Elevated                                 | 17.47             | (1.39)            | 16.47                                      | (1.61)            |
| Hypertension stage 1                     | 19.63             | (1.49)            | 21.31                                      | (1.82)            |
| Hypertension stage 2                     | 14.53             | (1.31)            | 11.84                                      | (1.39)            |
| Hypertensive crisis                      | 1.61 u            | (0.48)            | 0.00 ***                                   | (0.00)            |
| <b>Women and girls</b>                   |                   |                   |  |                   |
| <i>Sample size</i>                       | 1,139             | –                 | 555  | –                 |
| Normal                                   | 55.37             | (1.43)            | 58.09                                      | (1.88)            |
| Elevated                                 | 14.14             | (1.18)            | 10.20 *                                    | (1.37)            |
| Hypertension stage 1                     | 14.54             | (1.18)            | 19.83 *                                    | (1.74)            |
| Hypertension stage 2                     | 15.21             | (1.16)            | 10.84 *                                    | (1.35)            |
| Hypertensive crisis                      | 0.74 u            | (0.31)            | 1.04                                       | (0.48)            |
| <b>Children 8–18 years old</b>           |                   |                   |  |                   |
| <b>Both genders</b>                      |                   |                   |  |                   |
| <i>Sample size</i>                       | 831               | –                 | 289  | –                 |
| Normal                                   | 86.41             | (1.28)            | 89.11                                      | (1.86)            |
| Elevated                                 | 10.15             | (1.13)            | 6.23 *                                     | (1.44)            |
| Hypertension stage 1                     | 3.37              | (0.68)            | 4.26                                       | (1.22)            |
| Hypertension stage 2                     | 0.07 u            | (0.11)            | 0.40                                       | (0.39)            |
| Hypertensive crisis                      | 0.00              | (0.00)            | 0.00                                       | (0.00)            |
| <b>Boys</b>                              |                   |                   |  |                   |
| <i>Sample size</i>                       | 438               | –                 | 144  | –                 |
| Normal                                   | 83.24             | (1.96)            | 83.67                                      | (3.17)            |
| Elevated                                 | 13.12             | (1.78)            | 11.00                                      | (2.66)            |
| Hypertension stage 1                     | 3.50              | (1.01)            | 4.56                                       | (1.79)            |
| Hypertension stage 2                     | 0.13 u            | (0.21)            | 0.78                                       | (0.76)            |
| Hypertensive crisis                      | 0.00              | (0.00)            | 0.00                                       | (0.00)            |

| Blood Pressure Categories<br>By Subgroup | SNAP Participants |                   | Matched Income-Eligible<br>Nonparticipants |                   |
|--|-------------------|-------------------|--|-------------------|
|  | Percent           | Standard<br>Error | Percent                                    | Standard<br>Error |
| <b>Girls</b>                             |                   |                   |  |                   |
| <i>Sample size</i>                       | 393               | –                 | 145  | –                 |
| Normal                                   | 89.74             | (1.62)            | 94.82 *                                    | (1.89)            |
| Elevated                                 | 7.02              | (1.39)            | 1.23 ***                                   | (0.94)            |
| Hypertension stage 1                     | 3.24              | (0.91)            | 3.95                                       | (1.64)            |
| Hypertension stage 2                     | 0.00              | (0.00)            | 0.00                                       | (0.00)            |
| Hypertensive crisis                      | 0.00              | (0.00)            | 0.00                                       | (0.00)            |
| <b>Adults 19–59 years old</b>            |                   |                   |  |                   |
| <b>Both genders</b>                      |                   |                   |  |                   |
| <i>Sample size</i>                       | 1,013             | –                 | 638  | –                 |
| Normal                                   | 50.37             | (1.53)            | 55.11                                      | (1.95)            |
| Elevated                                 | 17.46             | (1.24)            | 16.27                                      | (1.49)            |
| Hypertension stage 1                     | 18.90             | (1.27)            | 20.01                                      | (1.65)            |
| Hypertension stage 2                     | 12.21             | (1.06)            | 8.46 *                                     | (1.17)            |
| Hypertensive crisis                      | 1.07              | (0.34)            | 0.13 *                                     | (0.16)            |
| <b>Men</b>                               |                   |                   |  |                   |
| <i>Sample size</i>                       | 447               | –                 | 329  | –                 |
| Normal                                   | 41.50             | (2.31)            | 47.83                                      | (2.89)            |
| Elevated                                 | 20.52             | (1.95)            | 18.90                                      | (2.22)            |
| Hypertension stage 1                     | 22.23             | (2.01)            | 24.57                                      | (2.52)            |
| Hypertension stage 2                     | 13.91             | (1.65)            | 8.70 *                                     | (1.68)            |
| Hypertensive crisis                      | 1.84              | (0.64)            | 0.00 **                                    | (0.00)            |
| <b>Women</b>                             |                   |                   |  |                   |
| <i>Sample size</i>                       | 566               | –                 | 309  | –                 |
| Normal                                   | 59.16             | (2.00)            | 62.33                                      | (2.62)            |
| Elevated                                 | 14.42             | (1.54)            | 13.68                                      | (2.00)            |
| Hypertension stage 1                     | 15.59             | (1.56)            | 15.50                                      | (2.15)            |
| Hypertension stage 2                     | 10.51             | (1.33)            | 8.23                                       | (1.62)            |
| Hypertensive crisis                      | 0.31              | (0.23)            | 0.27                                       | (0.32)            |
| <b>Older adults 60+ years old</b>        |                   |                   |  |                   |
| <b>Both genders</b>                      |                   |                   |  |                   |
| <i>Sample size</i>                       | 310               | –                 | 211  | –                 |
| Normal                                   | 24.95             | (2.41)            | 23.64                                      | (2.98)            |
| Elevated                                 | 15.20             | (2.08)            | 9.88                                       | (2.08)            |
| Hypertension stage 1                     | 22.46             | (2.41)            | 35.43 **                                   | (3.31)            |
| Hypertension stage 2                     | 34.98             | (2.73)            | 28.88                                      | (3.06)            |
| Hypertensive crisis                      | 2.39              | (0.91)            | 2.17                                       | (1.09)            |

| Blood Pressure Categories<br>By Subgroup | SNAP Participants |                   | Matched Income-Eligible<br>Nonparticipants |                   |
|--|-------------------|-------------------|--|-------------------|
|  | Percent           | Standard<br>Error | Percent                                    | Standard<br>Error |
| <b>Men</b>                               |                   |                   |  |                   |
| <i>Sample size</i>                       | 130               | –                 | 110  | –                 |
| Normal                                   | 30.59             | (3.86)            | 27.92                                      | (4.40)            |
| Elevated                                 | 11.18             | (2.85)            | 13.38                                      | (3.35)            |
| Hypertension stage 1                     | 25.88             | (3.92)            | 25.93                                      | (4.29)            |
| Hypertension stage 2                     | 30.03             | (4.11)            | 32.78                                      | (4.62)            |
| Hypertensive crisis                      | 2.33              | (1.40)            | 0.00                                       | (0.00)            |
| <b>Women</b>                             |                   |                   |  |                   |
| <i>Sample size</i>                       | 180               | –                 | 101  | –                 |
| Normal                                   | 20.42             | (3.04)            | 20.20                                      | (4.06)            |
| Elevated                                 | 18.44             | (2.97)            | 7.06 **                                    | (2.62)            |
| Hypertension stage 1                     | 19.72             | (2.99)            | 43.07 ***                                  | (4.88)            |
| Hypertension stage 2                     | 38.97             | (3.65)            | 25.75 *                                    | (4.08)            |
| Hypertensive crisis                      | 2.45              | (1.20)            | 3.92                                       | (1.97)            |

Notes: For 8- to 12-year-old children, blood pressure categories are defined according to the National Heart, Lung, and Blood Institute's pediatric guidelines. Children have elevated blood pressure if blood pressure for age-sex-height is  $\geq 90^{\text{th}}$  percentile and  $< 95^{\text{th}}$  percentile or 120/80 to 95<sup>th</sup> percentile (whichever is lower); hypertension stage 1 if blood pressure for age-sex-height is  $\geq 95^{\text{th}}$  percentile to  $< 95^{\text{th}}$  percentile +12 millimeters of mercury (mmHg), or 130/89 mmHg (whichever is lower); hypertension stage 2 if blood pressure for age-sex-height is  $\geq 95^{\text{th}}$  percentile +12 mmHg, or 140/90 mmHg (whichever is lower). For children 13+ years old and adults, blood pressure categories are defined as follows: normal if systolic is  $< 120$  mmHg and diastolic is  $< 80$  mmHg, elevated if systolic is 120–129 mmHg and diastolic is  $< 80$  mmHg, hypertension stage 1 if systolic is 130–139 mmHg and diastolic is 80–89 mmHg, hypertension stage 2 if systolic is 140+ mmHg and diastolic is 90+ mmHg, and hypertensive crisis if systolic is  $> 180$  mmHg and diastolic is  $< 120$  mmHg. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population, such that different age distributions of SNAP participants and nonparticipants are accounted for. Significant differences in estimates are noted by \* $p < .05$ , \*\* $p < .01$ , or \*\*\* $p < .001$  and are based on a *t*-test for difference in proportions between SNAP participants and matched income-eligible nonparticipants. Characteristics retained in the final propensity score estimation model included wave of NHANES; gender; race/ethnicity; age; US citizenship; education (highest grade completed); total number of people in household; ratio of income to poverty; annual household income; annual family income; monthly family income; total savings/cash assets for the family; presence of income from Supplemental Security Income; presence of income from State/county cash assistance; and money spent at supermarket/grocery store, on nonfood items, at other stores, on eating out, and on carryout/delivered foods. The match was completed with replacement using the SAS macro %PSMatching. SNAP participants consist of individuals in households that at the time of data collection reported receiving SNAP benefits.

– Denotes not applicable

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 blood pressure data. Sample includes NHANES respondents aged 8 and older with complete day 1 dietary recall data and blood pressure data. Sample excludes pregnant and breastfeeding women 20–44 years old; pregnant and breastfeeding women outside of these age ranges could not be identified in the data.

**Table G.4. High-Density Lipoprotein Categories for Matched SNAP Participants and Income-Eligible Nonparticipants by Age Group and Gender**

| High-Density Lipoprotein Categories by Subgroup | SNAP Participants |                | Matched Income-Eligible Nonparticipants |                |
|---|-------------------|----------------|---|----------------|
|   | Percent           | Standard Error | Percent                                 | Standard Error |
| <b>All individuals 6+ years old</b>             |                   |                |   |                |
| <b>Both genders</b>                             |                   |                |   |                |
| <i>Sample size</i>                              | 2,391             | –              | 1,186                                   | –              |
| Normal  | 57.81             | (1.18)         | 63.04 **                                | (1.50)         |
| Lower than recommended                          | 42.19             | (1.18)         | 36.96 **                                | (1.50)         |
| <b>Men and boys</b>                             |                   |                |   |                |
| <i>Sample size</i>                              | 1,140             | –              | 606                                     | –              |
| Normal  | 62.69             | (1.76)         | 65.70                                   | (2.08)         |
| Lower than recommended                          | 37.31             | (1.76)         | 34.30                                   | (2.08)         |
| <b>Women and girls</b>                          |                   |                |   |                |
| <i>Sample size</i>                              | 1,251             | –              | 580                                     | –              |
| Normal  | 53.11             | (1.60)         | 60.48 **                                | (2.16)         |
| Lower than recommended                          | 46.89             | (1.60)         | 39.52 **                                | (2.16)         |
| <b>Children 6–18 years old</b>                  |                   |                |   |                |
| <b>Both genders</b>                             |                   |                |   |                |
| <i>Sample size</i>                              | 1,068             | –              | 337                                     | –              |
| Normal  | 70.69             | (1.56)         | 70.79                                   | (2.69)         |
| Borderline low                                  | 15.46             | (1.24)         | 15.97                                   | (2.16)         |
| Lower than recommended                          | 13.86             | (1.20)         | 13.24                                   | (2.00)         |
| <b>Boys</b>                                     |                   |                |   |                |
| <i>Sample size</i>                              | 563               | –              | 167                                     | –              |
| Normal  | 70.96             | (2.18)         | 66.12                                   | (3.92)         |
| Borderline low                                  | 15.30             | (1.75)         | 18.13                                   | (3.17)         |
| Lower than recommended                          | 13.74             | (1.69)         | 15.75                                   | (3.00)         |
| <b>Girls</b>                                    |                   |                |   |                |
| <i>Sample size</i>                              | 505               | –              | 170                                     | –              |
| Normal  | 70.40             | (2.24)         | 75.69                                   | (3.66)         |
| Borderline low                                  | 15.62             | (1.76)         | 13.70                                   | (2.93)         |
| Lower than recommended                          | 13.98             | (1.72)         | 10.61                                   | (2.64)         |
| <b>Adults 19–59 years old</b>                   |                   |                |   |                |
| <b>Both genders</b>                             |                   |                |   |                |
| <i>Sample size</i>                              | 1,013             | –              | 638                                     | –              |
| Normal  | 52.36             | (1.62)         | 58.96 *                                 | (2.04)         |
| Lower than recommended                          | 47.64             | (1.62)         | 41.04 *                                 | (2.04)         |
| <b>Men</b>                                      |                   |                |   |                |
| <i>Sample size</i>                              | 447               | –              | 329                                     | –              |
| Normal  | 60.37             | (2.42)         | 64.91                                   | (2.81)         |
| Lower than recommended                          | 39.63             | (2.42)         | 35.09                                   | (2.81)         |

| High-Density Lipoprotein Categories by Subgroup | SNAP Participants |                | Matched Income-Eligible Nonparticipants |                |
|---|-------------------|----------------|---|----------------|
|   | Percent           | Standard Error | Percent                                 | Standard Error |
| <b>Women</b>                                    |                   |                |   |                |
| <i>Sample size</i>                              | 566               | –              | 309                                     | –              |
| Normal  | 44.42             | (2.16)         | 53.07 *                                 | (2.95)         |
| Lower than recommended                          | 55.58             | (2.16)         | 46.93 *                                 | (2.95)         |
| <b>Older adults 60+ years old</b>               |                   |                |   |                |
| <b>Both genders</b>                             |                   |                |   |                |
| <i>Sample size</i>                              | 310               | –              | 211                                     | –              |
| Normal  | 62.02             | (2.92)         | 68.00                                   | (3.36)         |
| Lower than recommended                          | 37.98             | (2.92)         | 32.00                                   | (3.36)         |
| <b>Men</b>                                      |                   |                |   |                |
| <i>Sample size</i>                              | 130               | –              | 110                                     | –              |
| Normal  | 61.47             | (4.43)         | 67.92                                   | (4.61)         |
| Lower than recommended                          | 38.53             | (4.43)         | 32.08                                   | (4.61)         |
| <b>Women</b>                                    |                   |                |   |                |
| <i>Sample size</i>                              | 180               | –              | 101                                     | –              |
| Normal  | 62.46             | (3.88)         | 68.07                                   | (4.79)         |
| Lower than recommended                          | 37.54             | (3.88)         | 31.93                                   | (4.79)         |

Notes: For individuals younger than 20, high-density lipoprotein (HDL) levels are defined as follows: normal if HDL is > 45 mg/dL, borderline low if HDL 40–45 mg/dL, and lower than recommended if HDL is < 40 mg/dL. For men aged 20 and older, HDL levels are defined as follows: normal if HDL is > 40 mg/dL, and lower than recommended if HDL is ≤ 40 mg/dL. For women aged 20 and older, HDL levels are defined as follows: normal if HDL is > 50 mg/dL, and lower than recommended if HDL is ≤ 50 mg/dL. In the “All individuals” section, “lower than recommended” includes both “borderline low” and “lower than recommended” categories for children. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population, such that different age distributions of SNAP participants and nonparticipants are accounted for. Significant differences in estimates are noted by \* $p < .05$ , \*\* $p < .01$ , or \*\*\* $p < .001$  and based on a  $t$ -test for difference in proportions between SNAP participants and matched income-eligible nonparticipants. Characteristics retained in the final propensity score estimation model included wave of NHANES; gender; race/ethnicity; age; US citizenship; education (highest grade completed); total number of people in household; ratio of income to poverty; annual household income; annual family income; monthly family income; total savings/cash assets for the family; presence of income from Supplemental Security Income; presence of income from State/county cash assistance; and money spent at supermarket/grocery store, on nonfood items, at other stores, on eating out, and on carryout/delivered foods. The match was completed with replacement using the SAS macro %PSMatching. SNAP participants consist of individuals in households that at the time of data collection reported receiving SNAP benefits.

– Denotes not applicable

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 blood biomarker data. Sample includes NHANES respondents aged 6 and older with complete day 1 dietary recall data and blood biomarker data. Sample excludes pregnant and breastfeeding women 20–44 years old; pregnant and breastfeeding women outside of these age ranges could not be identified in the data.

**Table G.5. Low-Density Lipoprotein Categories for Matched SNAP Participants and Income-Eligible Nonparticipants by Age Group and Gender**

| Low-Density Lipoprotein Categories by Subgroup | SNAP Participants |                | Matched Income-Eligible Nonparticipants |                |
|--|-------------------|----------------|---|----------------|
|  | Percent           | Standard Error | Percent                                 | Standard Error |
| <b>All individuals 12+ years old</b>           |                   |                |   |                |
| <b>Both genders</b>                            |                   |                |   |                |
| <i>Sample size</i>                             | 1,763             | –              | 1,025                                   | –              |
| Normal   | 46.47             | (1.90)         | 43.91                                   | (2.14)         |
| Higher than recommended                        | 53.53             | (1.90)         | 56.09                                   | (2.14)         |
| <b>Men and boys</b>                            |                   |                |   |                |
| <i>Sample size</i>                             | 804               | –              | 525                                     | –              |
| Normal   | 50.03             | (2.97)         | 41.71 *                                 | (2.94)         |
| Higher than recommended                        | 49.97             | (2.97)         | 58.29 *                                 | (2.94)         |
| <b>Women and girls</b>                         |                   |                |   |                |
| <i>Sample size</i>                             | 959               | –              | 500                                     | –              |
| Normal   | 43.08             | (2.39)         | 46.00                                   | (3.11)         |
| Higher than recommended                        | 56.92             | (2.39)         | 54.00                                   | (3.11)         |
| <b>Children 12–18 years old</b>                |                   |                |   |                |
| <b>Both genders</b>                            |                   |                |   |                |
| <i>Sample size</i>                             | 440               | –              | 176                                     | –              |
| Normal   | 79.21             | (2.96)         | 87.39                                   | (3.47)         |
| Borderline high                                | 18.76             | (2.84)         | 9.16 *                                  | (3.04)         |
| Higher than recommended                        | 2.03              | (1.03)         | 3.45                                    | (1.91)         |
| <b>Boys</b>                                    |                   |                |   |                |
| <i>Sample size</i>                             | 227               | –              | 86                                      | –              |
| Normal   | 81.74             | (3.80)         | 86.60                                   | (5.05)         |
| Borderline high                                | 17.14             | (3.68)         | 9.51                                    | (4.38)         |
| Higher than recommended                        | 1.12              | (1.10)         | 3.89                                    | (2.86)         |
| <b>Girls</b>                                   |                   |                |   |                |
| <i>Sample size</i>                             | 213               | –              | 90                                      | –              |
| Normal   | 76.54             | (4.58)         | 88.21                                   | (4.74)         |
| Borderline high                                | 20.47             | (4.36)         | 8.79                                    | (4.20)         |
| Higher than recommended                        | 2.99              | (1.76)         | 3.00                                    | (2.51)         |
| <b>Adults 19–59 years old</b>                  |                   |                |   |                |
| <b>Both genders</b>                            |                   |                |   |                |
| <i>Sample size</i>                             | 1,013             | –              | 638                                     | –              |
| Normal   | 41.56             | (2.33)         | 36.73                                   | (2.71)         |
| Higher than recommended                        | 58.44             | (2.33)         | 63.27                                   | (2.71)         |
| <b>Men</b>                                     |                   |                |   |                |
| <i>Sample size</i>                             | 447               | –              | 329                                     | –              |
| Normal   | 44.14             | (3.65)         | 30.59 **                                | (3.73)         |
| Higher than recommended                        | 55.86             | (3.65)         | 69.41 **                                | (3.73)         |
| <b>Women</b>                                   |                   |                |   |                |
| <i>Sample size</i>                             | 566               | –              | 309                                     | –              |
| Normal   | 39.00             | (2.92)         | 42.81                                   | (3.94)         |
| Higher than recommended                        | 61.00             | (2.92)         | 57.19                                   | (3.94)         |

| Low-Density Lipoprotein Categories by Subgroup | SNAP Participants |                | Matched Income-Eligible Nonparticipants |                |
|--|-------------------|----------------|---|----------------|
|  | Percent           | Standard Error | Percent                                 | Standard Error |
| <b>Older adults 60+ years old</b>              |                   |                |   |                |
| <b>Both genders</b>                            |                   |                |   |                |
| <i>Sample size</i>                             | 310               | –              | 211                                     | –              |
| Normal   | 44.25             | (4.71)         | 42.92                                   | (4.93)         |
| Higher than recommended                        | 55.75             | (4.71)         | 57.08                                   | (4.93)         |
| <b>Men</b>                                     |                   |                |   |                |
| <i>Sample size</i>                             | 130               | –              | 110                                     | –              |
| Normal   | 50.91             | (7.87)         | 52.35                                   | (6.81)         |
| Higher than recommended                        | 49.09             | (7.87)         | 47.65                                   | (6.81)         |
| <b>Women</b>                                   |                   |                |   |                |
| <i>Sample size</i>                             | 180               | –              | 101                                     | –              |
| Normal   | 38.90             | (5.67)         | 35.34                                   | (7.00)         |
| Higher than recommended                        | 61.10             | (5.67)         | 64.66                                   | (7.00)         |

Notes: For individuals younger than 19, Low-density lipoprotein (LDL) levels are defined as normal if LDL < 110 mg/dL, borderline high if LDL 110–129 mg/dL, and higher than recommended if LDL > 130 mg/dL. For adults 19 and older, LDL levels are defined as normal if LDL is < 100 mg/dL, and higher than recommended if LDL is ≥ 100 mg/dL. In the “All individuals” section, “higher than recommended” includes both “borderline high” and “higher than recommended” categories for children. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population, such that different age distributions of SNAP participants and nonparticipants are accounted for. Significant differences in estimates are noted by \* $p < .05$ , \*\* $p < .01$ , or \*\*\* $p < .001$  and based on a  $t$ -test for difference in proportions between SNAP participants and matched income-eligible nonparticipants. Characteristics retained in the final propensity score estimation model included wave of NHANES; gender; race/ethnicity; age; US citizenship; education (highest grade completed); total number of people in household; ratio of income to poverty; annual household income; annual family income; monthly family income; total savings/cash assets for the family; presence of income from Supplemental Security Income; presence of income from State/county cash assistance; and money spent at supermarket/grocery store, on nonfood items, at other stores, on eating out, and on carryout/delivered foods. The match was completed with replacement using the SAS macro %PSMatching. SNAP participants consist of individuals in households that at the time of data collection reported receiving SNAP benefits.

– Denotes not applicable

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 blood biomarker data. Sample includes NHANES respondents aged 12 and older with complete day 1 dietary recall data and blood biomarker data. Sample excludes pregnant and breastfeeding women 20–44 years old; pregnant and breastfeeding women outside of these age ranges could not be identified in the data.

**Table G.6. Triglycerides Concentration Categories for Matched SNAP Participants and Income-Eligible Nonparticipants by Age Group and Gender**

| Triglyceride Concentration Categories by Subgroup | SNAP Participants |                | Matched Income-Eligible Nonparticipants |                |
|---|-------------------|----------------|---|----------------|
|   | Percent           | Standard Error | Percent                                 | Standard Error |
| <b>All individuals 12+ years old</b>              |                   |                |   |                |
| <b>Both genders</b>                               |                   |                |   |                |
| <i>Sample size</i>                                | 1,763             | –              | 1,025                                   | –              |
| Normal  | 71.34             | (1.71)         | 73.42                                   | (2.04)         |
| Borderline high                                   | 14.51             | (1.33)         | 14.66                                   | (1.62)         |
| High  | 14.15             | (1.33)         | 11.92                                   | (1.51)         |
| <b>Men and boys</b>                               |                   |                |   |                |
| <i>Sample size</i>                                | 804               | –              | 525                                     | –              |
| Normal  | 68.56             | (2.66)         | 72.10                                   | (2.95)         |
| Borderline high                                   | 14.63             | (2.01)         | 14.67                                   | (2.35)         |
| High  | 16.81             | (2.18)         | 13.23                                   | (2.22)         |
| <b>Women and girls</b>                            |                   |                |   |                |
| <i>Sample size</i>                                | 959               | –              | 500                                     | –              |
| Normal  | 73.98             | (2.16)         | 74.68                                   | (2.84)         |
| Borderline high                                   | 14.41             | (1.75)         | 14.65                                   | (2.24)         |
| High  | 11.61             | (1.56)         | 10.67                                   | (2.05)         |
| <b>Children 12–18 years old</b>                   |                   |                |   |                |
| <b>Both genders</b>                               |                   |                |   |                |
| <i>Sample size</i>                                | 440               | –              | 176                                     | –              |
| Normal  | 62.10             | (3.52)         | 71.89                                   | (4.76)         |
| Borderline high                                   | 24.19             | (3.15)         | 12.81 *                                 | (3.44)         |
| High  | 13.71             | (2.50)         | 15.30                                   | (3.70)         |
| <b>Boys</b>                                       |                   |                |   |                |
| <i>Sample size</i>                                | 227               | –              | 86                                      | –              |
| Normal  | 61.28             | (4.87)         | 78.18 *                                 | (6.16)         |
| Borderline high                                   | 24.51             | (4.31)         | 7.52 **                                 | (3.91)         |
| High  | 14.21             | (3.49)         | 14.30                                   | (5.20)         |
| <b>Girls</b>                                      |                   |                |   |                |
| <i>Sample size</i>                                | 213               | –              | 90                                      | –              |
| Normal  | 62.96             | (5.11)         | 65.26                                   | (7.30)         |
| Borderline high                                   | 23.85             | (4.59)         | 18.39                                   | (5.74)         |
| High  | 13.19             | (3.58)         | 16.35                                   | (5.27)         |
| <b>Adults 19–59 years old</b>                     |                   |                |   |                |
| <b>Both genders</b>                               |                   |                |   |                |
| <i>Sample size</i>                                | 1,013             | –              | 638                                     | –              |
| Normal  | 71.94             | (2.09)         | 72.76                                   | (2.59)         |
| Borderline high                                   | 13.62             | (1.64)         | 16.14                                   | (2.15)         |
| High  | 14.45             | (1.62)         | 11.10                                   | (1.85)         |

| Triglyceride Concentration Categories by Subgroup | SNAP Participants |                | Matched Income-Eligible Nonparticipants |                |
|---|-------------------|----------------|---|----------------|
|   | Percent           | Standard Error | Percent                                 | Standard Error |
| <b>Men</b>  |                   |                |   |                |
| <i>Sample size</i>                                | 447               | –              | 329                                     | –              |
| Normal  | 68.83             | (3.24)         | 70.71                                   | (3.79)         |
| Borderline high                                   | 14.87             | (2.57)         | 15.56                                   | (3.05)         |
| High  | 16.30             | (2.55)         | 13.73                                   | (2.87)         |
| <b>Women</b>                                      |                   |                |   |                |
| <i>Sample size</i>                                | 566               | –              | 309                                     | –              |
| Normal  | 75.02             | (2.64)         | 74.79                                   | (3.54)         |
| Borderline high                                   | 12.38             | (2.04)         | 16.71                                   | (3.04)         |
| High  | 12.61             | (2.00)         | 8.49                                    | (2.33)         |
| <b>Older adults 60+ years old</b>                 |                   |                |   |                |
| <b>Both genders</b>                               |                   |                |   |                |
| <i>Sample size</i>                                | 310               | –              | 211                                     | –              |
| Normal  | 74.34             | (4.13)         | 76.24                                   | (4.32)         |
| Borderline high                                   | 12.18             | (3.01)         | 11.14                                   | (2.95)         |
| High  | 13.49             | (3.29)         | 12.62                                   | (3.46)         |
| <b>Men</b>  |                   |                |   |                |
| <i>Sample size</i>                                | 130               | –              | 110                                     | –              |
| Normal  | 72.04             | (6.90)         | 73.15                                   | (6.10)         |
| Borderline high                                   | 7.86 <b>u</b>     | (4.19)         | 15.97                                   | (5.06)         |
| High  | 20.10 <b>u</b>    | (6.22)         | 10.88                                   | (4.30)         |
| <b>Women</b>                                      |                   |                |   |                |
| <i>Sample size</i>                                | 180               | –              | 101                                     | –              |
| Normal  | 76.19             | (4.98)         | 78.72                                   | (6.04)         |
| Borderline high                                   | 15.65             | (4.26)         | 7.27                                    | (3.45)         |
| High  | 8.16 <b>u</b>     | (3.20)         | 14.01                                   | (5.20)         |

Notes: For individuals 12+ years old, triglyceride (TG) levels are defined as follows: normal if TG is < 150 mg/dL, borderline high if TG is 150–199 mg/dL, and high if TG is ≥ 200 mg/dL. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population, such that different age distributions of SNAP participants and nonparticipants are accounted for. Significant differences in estimates are noted by \* $p < .05$ , \*\* $p < .01$ , or \*\*\* $p < .001$  and based on a  $t$ -test for difference in proportions between SNAP participants and matched income-eligible nonparticipants. Characteristics retained in the final propensity score estimation model included wave of NHANES; gender; race/ethnicity; age; US citizenship; education (highest grade completed); total number of people in household; ratio of income to poverty; annual household income; annual family income; monthly family income; total savings/cash assets for the family; presence of income from Supplemental Security Income; presence of income from State/county cash assistance; and money spent at supermarket/grocery store, on nonfood items, at other stores, on eating out, and on carryout/delivered foods. The match was completed with replacement using the SAS macro %PSMatching. SNAP participants consist of individuals in households that at the time of data collection reported receiving SNAP benefits.

– Denotes not applicable

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 blood biomarker data. Sample includes NHANES respondents aged 12 and older with complete day 1 dietary recall data and blood biomarker data. Sample excludes pregnant and breastfeeding women 20–44 years old; pregnant and breastfeeding women outside of these age ranges could not be identified in the data.

**Table G.7. Blood Glucose Status for Matched SNAP Participants and Income-Eligible Nonparticipants by Age Group and Gender**

| Blood Glucose Level Categories by Subgroup | SNAP Participants |                | Matched Income-Eligible Nonparticipants |                |
|--|-------------------|----------------|---|----------------|
|  | Percent           | Standard Error | Percent                                 | Standard Error |
| <b>All individuals 12+ years old</b>       |                   |                |   |                |
| <b>Both genders</b>                        |                   |                |   |                |
| <i>Sample size</i>                         | 1,763             | –              | 1,025                                   | –              |
| Normal                                     | 59.02             | (1.82)         | 55.84                                   | (2.12)         |
| Prediabetes                                | 28.91             | (1.76)         | 32.19                                   | (2.05)         |
| Diabetes                                   | 12.07             | (1.28)         | 11.96                                   | (1.42)         |
| <b>Men and boys</b>                        |                   |                |   |                |
| <i>Sample size</i>                         | 804               | –              | 525                                     | –              |
| Normal                                     | 57.93             | (2.78)         | 45.51 **                                | (3.08)         |
| Prediabetes                                | 29.32             | (2.70)         | 40.13 **                                | (3.03)         |
| Diabetes                                   | 12.75             | (1.98)         | 14.36                                   | (2.02)         |
| <b>Women and girls</b>                     |                   |                |   |                |
| <i>Sample size</i>                         | 959               | –              | 500                                     | –              |
| Normal                                     | 60.06             | (2.37)         | 65.69                                   | (2.93)         |
| Prediabetes                                | 28.52             | (2.27)         | 24.63                                   | (2.77)         |
| Diabetes                                   | 11.42             | (1.64)         | 9.68                                    | (2.00)         |
| <b>Children 12–18 years old</b>            |                   |                |   |                |
| <b>Both genders</b>                        |                   |                |   |                |
| <i>Sample size</i>                         | 440               | –              | 176                                     | –              |
| Normal                                     | 84.77             | (2.53)         | 71.30 **                                | (4.22)         |
| Prediabetes                                | 14.73             | (2.50)         | 28.70 **                                | (4.22)         |
| Diabetes                                   | 0.50 u            | (0.52)         | 0.00                                    | (0.00)         |
| <b>Boys</b>                                |                   |                |   |                |
| <i>Sample size</i>                         | 227               | –              | 86                                      | –              |
| Normal                                     | 76.76             | (4.24)         | 58.03 *                                 | (6.82)         |
| Prediabetes                                | 22.26             | (4.17)         | 41.97 *                                 | (6.82)         |
| Diabetes                                   | 0.98 u            | (1.02)         | 0.00                                    | (0.00)         |
| <b>Girls</b>                               |                   |                |   |                |
| <i>Sample size</i>                         | 213               | –              | 90                                      | –              |
| Normal                                     | 93.20             | (2.65)         | 85.25                                   | (4.85)         |
| Prediabetes                                | 6.80 u            | (2.65)         | 14.75                                   | (4.85)         |
| Diabetes                                   | 0.00              | (0.00)         | 0.00                                    | (0.00)         |
| <b>Adults 19–59 years old</b>              |                   |                |   |                |
| <b>Both genders</b>                        |                   |                |   |                |
| <i>Sample size</i>                         | 1,013             | –              | 638                                     | –              |
| Normal                                     | 60.96             | (2.26)         | 60.01                                   | (2.66)         |
| Prediabetes                                | 29.27             | (2.13)         | 31.51                                   | (2.55)         |
| Diabetes                                   | 9.77              | (1.38)         | 8.48                                    | (1.59)         |

| Blood Glucose Level Categories by Subgroup | SNAP Participants |                | Matched Income-Eligible Nonparticipants |                |
|--|-------------------|----------------|---|----------------|
|  | Percent           | Standard Error | Percent                                 | Standard Error |
| <b>Men</b>                                 |                   |                |   |                |
| <i>Sample size</i>                         | 447               | –              | 329                                     | –              |
| Normal                                     | 63.20             | (3.48)         | 46.87 **                                | (3.94)         |
| Prediabetes                                | 28.59             | (3.26)         | 44.03 **                                | (3.94)         |
| Diabetes                                   | 8.21              | (1.95)         | 9.10                                    | (2.26)         |
| <b>Women</b>                               |                   |                |   |                |
| <i>Sample size</i>                         | 566               | –              | 309                                     | –              |
| Normal                                     | 58.73             | (2.90)         | 73.03 **                                | (3.59)         |
| Prediabetes                                | 29.96             | (2.76)         | 19.12 *                                 | (3.23)         |
| Diabetes                                   | 11.31             | (1.94)         | 7.85                                    | (2.23)         |
| <b>Older adults 60+ years old</b>          |                   |                |   |                |
| <b>Both genders</b>                        |                   |                |   |                |
| <i>Sample size</i>                         | 310               | –              | 211                                     | –              |
| Normal                                     | 39.69             | (4.46)         | 35.13                                   | (4.85)         |
| Prediabetes                                | 35.24             | (4.53)         | 36.08                                   | (4.74)         |
| Diabetes                                   | 25.07             | (4.06)         | 28.79                                   | (4.34)         |
| <b>Men</b>                                 |                   |                |   |                |
| <i>Sample size</i>                         | 130               | –              | 110                                     | –              |
| Normal                                     | 28.77             | (6.80)         | 33.39                                   | (6.42)         |
| Prediabetes                                | 36.06             | (7.34)         | 25.83                                   | (5.79)         |
| Diabetes                                   | 35.17             | (7.30)         | 40.78                                   | (6.55)         |
| <b>Women</b>                               |                   |                |   |                |
| <i>Sample size</i>                         | 180               | –              | 101                                     | –              |
| Normal                                     | 48.47             | (5.91)         | 36.53                                   | (7.06)         |
| Prediabetes                                | 34.58             | (5.65)         | 44.32                                   | (7.18)         |
| Diabetes                                   | 16.96             | (4.36)         | 19.15                                   | (5.78)         |

Notes: Fasting plasma glucose levels are defined as follows: normal if < 100 milligrams per deciliter (mg/dL), prediabetes if 100–125 mg/dL, and diabetes if > 125 mg/dL. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population, such that different age distributions of SNAP participants and nonparticipants are accounted for. Significant differences in estimates are noted by \* $p < .05$ , \*\* $p < .01$ , or \*\*\* $p < .001$  and based on a  $t$ -test for difference in proportions between SNAP participants and matched income-eligible nonparticipants. Characteristics retained in the final propensity score estimation model included wave of NHANES; gender; race/ethnicity; age; US citizenship; education (highest grade completed); total number of people in household; ratio of income to poverty; annual household income; annual family income; monthly family income; total savings/cash assets for the family; presence of income from Supplemental Security Income; presence of income from State/county cash assistance; and money spent at supermarket/grocery store, on nonfood items, at other stores, on eating out, and on carryout/delivered foods. The match was completed with replacement using the SAS macro %PSMatching. SNAP participants consist of individuals in households that at the time of data collection reported receiving SNAP benefits.

– Denotes not applicable

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 blood biomarker data. Sample includes NHANES respondents aged 12 and older with complete day 1 dietary recall data and blood biomarker data. Sample excludes pregnant and breastfeeding women 20–44 years old; pregnant and breastfeeding women outside of these age ranges could not be identified in the data.

**Table G.8. Hemoglobin Level Categories for Matched SNAP Participants and Income-Eligible Nonparticipants by Age Group and Gender**

| Hemoglobin Level Categories by Subgroup | SNAP Participants |                | Matched Income-Eligible Nonparticipants |                |
|---|-------------------|----------------|---|----------------|
|   | Percent           | Standard Error | Percent                                 | Standard Error |
| <b>All individuals 1+ years old</b>     |                   |                |   |                |
| <b>Both genders</b>                     |                   |                |   |                |
| <i>Sample size</i>                      | 2,983             | –              | 1,301                                   | –              |
| Normal                                  | 88.29             | (0.74)         | 90.88 *                                 | (0.82)         |
| Low                                     | 11.71             | (0.74)         | 9.12 *                                  | (0.82)         |
| <b>Men and boys</b>                     |                   |                |   |                |
| <i>Sample size</i>                      | 1,434             | –              | 670                                     | –              |
| Normal                                  | 91.73             | (0.94)         | 96.01 ***                               | (0.70)         |
| Low                                     | 8.27              | (0.94)         | 3.99 ***                                | (0.70)         |
| <b>Women and girls</b>                  |                   |                |   |                |
| <i>Sample size</i>                      | 1,549             | –              | 631                                     | –              |
| Normal                                  | 84.97             | (1.13)         | 85.92                                   | (1.45)         |
| Low                                     | 15.03             | (1.13)         | 14.08                                   | (1.45)         |
| <b>Children 1–18 years old</b>          |                   |                |   |                |
| <b>Both genders</b>                     |                   |                |   |                |
| <i>Sample size</i>                      | 1,660             | –              | 452                                     | –              |
| Normal                                  | 92.65             | (0.73)         | 95.22 *                                 | (1.02)         |
| Low                                     | 7.35              | (0.73)         | 4.78 *                                  | (1.02)         |
| <b>Boys</b>                             |                   |                |   |                |
| <i>Sample size</i>                      | 857               | –              | 231                                     | –              |
| Normal                                  | 95.91             | (0.75)         | 98.08                                   | (0.99)         |
| Low                                     | 4.09              | (0.75)         | 1.92                                    | (0.99)         |
| <b>Girls</b>                            |                   |                |   |                |
| <i>Sample size</i>                      | 803               | –              | 221                                     | –              |
| Normal                                  | 89.23             | (1.27)         | 92.23                                   | (1.82)         |
| Low                                     | 10.77             | (1.27)         | 7.77                                    | (1.82)         |
| <b>Adults 19–59 years old</b>           |                   |                |   |                |
| <b>Both genders</b>                     |                   |                |   |                |
| <i>Sample size</i>                      | 1,013             | –              | 638                                     | –              |
| Normal                                  | 89.63             | (0.96)         | 91.13                                   | (1.13)         |
| Low                                     | 10.37             | (0.96)         | 8.87                                    | (1.13)         |
| <b>Men</b>                              |                   |                |   |                |
| <i>Sample size</i>                      | 447               | –              | 329                                     | –              |
| Normal                                  | 93.61             | (1.14)         | 98.45 ***                               | (0.70)         |
| Low                                     | 6.39              | (1.14)         | 1.55 ***                                | (0.70)         |
| <b>Women</b>                            |                   |                |   |                |
| <i>Sample size</i>                      | 566               | –              | 309                                     | –              |
| Normal                                  | 85.68             | (1.54)         | 83.87                                   | (2.13)         |
| Low                                     | 14.32             | (1.54)         | 16.13                                   | (2.13)         |

| Hemoglobin Level Categories by Subgroup | SNAP Participants |                | Matched Income-Eligible Nonparticipants |                |
|---|-------------------|----------------|---|----------------|
|   | Percent           | Standard Error | Percent                                 | Standard Error |
| <b>Older adults 60+ years old</b>       |                   |                |   |                |
| <b>Both genders</b>                     |                   |                |   |                |
| <i>Sample size</i>                      | 310               | –              | 211                                     | –              |
| Normal                                  | 78.52             | (2.46)         | 84.42                                   | (2.35)         |
| Low                                     | 21.48             | (2.46)         | 15.58                                   | (2.35)         |
| <b>Men</b>                              |                   |                |   |                |
| <i>Sample size</i>                      | 130               | –              | 110                                     | –              |
| Normal                                  | 79.06             | (3.80)         | 84.63                                   | (3.06)         |
| Low                                     | 20.94             | (3.80)         | 15.37                                   | (3.06)         |
| <b>Women</b>                            |                   |                |   |                |
| <i>Sample size</i>                      | 180               | –              | 101                                     | –              |
| Normal                                  | 78.09             | (3.22)         | 84.25                                   | (3.45)         |
| Low                                     | 21.91             | (3.22)         | 15.75                                   | (3.45)         |

Notes: For children 6–59 months old, hemoglobin levels are defined as follows: normal if  $\geq 110$  milligrams per deciliter (mg/dL), and low if  $< 110$  mg/dL. For children 5–11 years old, hemoglobin levels are defined as follows: normal if  $\geq 115$  mg/dL, and low if  $< 115$  mg/dL. For children 12–14 years old, hemoglobin levels are defined as follows: normal if  $\geq 120$  mg/dL, and low if  $< 120$  mg/dL. For nonpregnant women 15 years old or older, hemoglobin levels are defined as follows: normal if  $\geq 120$  mg/dL, and low if  $< 120$  mg/dL. For men 15 years old or older, hemoglobin levels are defined as follows: normal if  $\geq 130$  mg/dL, and low if  $< 130$  mg/dL. The above reference levels were used for the nonsmoking population residing at sea level. The above reference levels were adjusted for smokers and those residing at 1000 or more meters above sea level based on World Health Organization (2011) recommendations. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population, such that different age distributions of SNAP participants and nonparticipants are accounted for. Significant differences in estimates are noted by  $*p < .05$ ,  $**p < .01$ , or  $***p < .001$  and based on a *t*-test for difference in proportions between SNAP participants and matched income-eligible nonparticipants. Characteristics retained in the final propensity score estimation model included wave of NHANES; gender; race/ethnicity; age; US citizenship; education (highest grade completed); total number of people in household; ratio of income to poverty; annual household income; annual family income; monthly family income; total savings/cash assets for the family; presence of income from Supplemental Security Income; presence of income from State/county cash assistance; and money spent at supermarket/grocery store, on nonfood items, at other stores, on eating out, and on carryout/delivered foods. The match was completed with replacement using the SAS macro %PSMatching. SNAP participants consist of individuals in households that at the time of data collection reported receiving SNAP benefits. – Denotes not applicable

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 blood biomarker data. Sample includes NHANES respondents 1 year old or older with complete day 1 dietary recall data and blood biomarker data. Sample excludes pregnant and breastfeeding women 20–44 years old; pregnant and breastfeeding women outside of these age ranges could not be identified in the data.

**Table G.9. Vitamin D Levels Categories for Matched SNAP Participants, and Income-Eligible Nonparticipants by Age Group and Gender**

| Vitamin D Level Categories<br>by Subgroup | SNAP Participants |                   | Matched Income-Eligible<br>Nonparticipants |                   |
|---|-------------------|-------------------|--|-------------------|
|   | Percent           | Standard<br>Error | Percent                                    | Standard<br>Error |
| <b>All individuals 1+ years old</b>       |                   |                   |  |                   |
| <b>Both genders</b>                       |                   |                   |  |                   |
| <i>Sample size</i>                        | 2,983             | –                 | 1,301                                      | –                 |
| Adequate                                  | 65.90             | (1.08)            | 68.91                                      | (1.38)            |
| Inadequate                                | 25.91             | (1.00)            | 23.96                                      | (1.28)            |
| Associated with deficiency                | 8.19              | (0.65)            | 7.13                                       | (0.79)            |
| <b>Men and boys</b>                       |                   |                   |  |                   |
| <i>Sample size</i>                        | 1,434             | –                 | 670  | –                 |
| Adequate                                  | 65.76             | (1.61)            | 69.99                                      | (1.93)            |
| Inadequate                                | 26.87             | (1.53)            | 24.54                                      | (1.82)            |
| Associated with deficiency                | 7.37              | (0.92)            | 5.48                                       | (0.98)            |
| <b>Women and girls</b>                    |                   |                   |  |                   |
| <i>Sample size</i>                        | 1,549             | –                 | 631  | –                 |
| Adequate                                  | 66.04             | (1.43)            | 67.87                                      | (1.97)            |
| Inadequate                                | 24.97             | (1.31)            | 23.39                                      | (1.79)            |
| Associated with deficiency                | 8.99              | (0.91)            | 8.73                                       | (1.23)            |
| <b>Children 1–18 years old</b>            |                   |                   |  |                   |
| <b>Both genders</b>                       |                   |                   |  |                   |
| <i>Sample size</i>                        | 1,660             | –                 | 452  | –                 |
| Adequate                                  | 77.76             | (1.17)            | 76.41                                      | (2.15)            |
| Inadequate                                | 18.40             | (1.11)            | 22.05                                      | (2.12)            |
| Associated with deficiency                | 3.84              | (0.57)            | 1.55 **                                    | (0.62)            |
| <b>Boys</b>                               |                   |                   |  |                   |
| <i>Sample size</i>                        | 857               | –                 | 231  | –                 |
| Adequate                                  | 78.28             | (1.62)            | 76.56                                      | (3.09)            |
| Inadequate                                | 18.16             | (1.53)            | 23.08                                      | (3.07)            |
| Associated with deficiency                | 3.55              | (0.77)            | 0.36 ***                                   | (0.43)            |
| <b>Girls</b>                              |                   |                   |  |                   |
| <i>Sample size</i>                        | 803               | –                 | 221  | –                 |
| Adequate                                  | 77.21             | (1.70)            | 76.24                                      | (2.98)            |
| Inadequate                                | 18.65             | (1.59)            | 20.97                                      | (2.90)            |
| Associated with deficiency                | 4.14              | (0.84)            | 2.79                                       | (1.19)            |
| <b>Adults 19–59 years old</b>             |                   |                   |  |                   |
| <b>Both genders</b>                       |                   |                   |  |                   |
| <i>Sample size</i>                        | 1,013             | –                 | 638  | –                 |
| Adequate                                  | 57.61             | (1.61)            | 63.70 *                                    | (1.98)            |
| Inadequate                                | 31.78             | (1.52)            | 26.38 *                                    | (1.82)            |
| Associated with deficiency                | 10.61             | (1.01)            | 9.92                                       | (1.23)            |

| Vitamin D Level Categories<br>by Subgroup | SNAP Participants |                   | Matched Income-Eligible<br>Nonparticipants |                   |
|---|-------------------|-------------------|--|-------------------|
|   | Percent           | Standard<br>Error | Percent                                    | Standard<br>Error |
| <b>Men</b>                                |                   |                   |  |                   |
| <i>Sample size</i>                        | 447               | –                 | 329  | –                 |
| Adequate                                  | 57.52             | (2.43)            | 65.36 *                                    | (2.78)            |
| Inadequate                                | 32.04             | (2.30)            | 26.89                                      | (2.60)            |
| Associated with deficiency                | 10.44             | (1.51)            | 7.75                                       | (1.54)            |
| <b>Women</b>                              |                   |                   |  |                   |
| <i>Sample size</i>                        | 566               | –                 | 309  | –                 |
| Adequate                                  | 57.70             | (2.13)            | 62.05                                      | (2.83)            |
| Inadequate                                | 31.52             | (1.99)            | 25.88                                      | (2.55)            |
| Associated with deficiency                | 10.77             | (1.34)            | 12.07                                      | (1.91)            |
| <b>Older adults 60+ years old</b>         |                   |                   |  |                   |
| <b>Both genders</b>                       |                   |                   |  |                   |
| <i>Sample size</i>                        | 310               | –                 | 211  | –                 |
| Adequate                                  | 75.49             | (2.59)            | 74.89                                      | (3.16)            |
| Inadequate                                | 17.93             | (2.31)            | 19.11                                      | (2.88)            |
| Associated with deficiency                | 6.58              | (1.45)            | 6.00                                       | (1.77)            |
| <b>Men</b>                                |                   |                   |  |                   |
| <i>Sample size</i>                        | 130               | –                 | 110  | –                 |
| Adequate                                  | 74.83             | (4.06)            | 75.76                                      | (4.29)            |
| Inadequate                                | 22.48             | (3.90)            | 18.77                                      | (3.93)            |
| Associated with deficiency                | 2.69              | (1.50)            | 5.48                                       | (2.36)            |
| <b>Women</b>                              |                   |                   |  |                   |
| <i>Sample size</i>                        | 180               | –                 | 101  | –                 |
| Adequate                                  | 76.02             | (3.35)            | 74.20                                      | (4.54)            |
| Inadequate                                | 14.27             | (2.74)            | 19.38                                      | (4.11)            |
| Associated with deficiency                | 9.70              | (2.33)            | 6.42                                       | (2.58)            |

Notes: For both children and adults, serum 25-hydroxyvitamin D levels are defined as follows: adequate if  $\geq 50$  and  $< 125$  nanomoles per liter (nmol/L), inadequate if  $\geq 30$  to  $< 50$  nmol/L, and associated with deficiency if  $< 30$  nmol/L. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population, such that different age distributions of SNAP participants and nonparticipants are accounted for. Significant differences in estimates are noted by  $*p < .05$ ,  $**p < .01$ , or  $***p < .001$  and based on a  $t$ -test for difference in proportions between SNAP participants and matched income-eligible nonparticipants.

Characteristics retained in the final propensity score estimation model included wave of NHANES; gender; race/ethnicity; age; US citizenship; education (highest grade completed); total number of people in household; ratio of income to poverty; annual household income; annual family income; monthly family income; total savings/cash assets for the family; presence of income from Supplemental Security Income; presence of income from State/county cash assistance; and money spent at supermarket/grocery store, on nonfood items, at other stores, on eating out, and on carryout/delivered foods. The match was completed with replacement using the SAS macro %PSMatching. SNAP participants consist of individuals in households that at the time of data collection reported receiving SNAP benefits.

– Denotes not applicable

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 blood biomarker data. Sample includes NHANES respondents aged 12 and older with complete day 1 dietary recall data and blood biomarker data. Sample excludes pregnant and breastfeeding women 20–44 years old; pregnant and breastfeeding women outside of these age ranges could not be identified in the data.

**Table G.10. Mean Daily Calorie Intakes for Matched SNAP Participants and Income-Eligible Nonparticipants by Age Group and Gender**

| Subgroup                          | SNAP Participants |       |                | Matched Income-Eligible Nonparticipants |         |                |
|-----------------------------------|-------------------|-------|----------------|---|---------|----------------|
|                                   | Sample Size       | Mean  | Standard Error | Sample Size                             | Mean    | Standard Error |
| <b>All individuals</b>            | 2,983             | 2,126 | (31.0)         | 1,301                                   | 2,103   | (38.0)         |
| Men and boys                      | 1,434             | 2,464 | (51.6)         | 670                                     | 2,452   | (65.4)         |
| Women and girls                   | 1,549             | 1,799 | (35.0)         | 631                                     | 1,767   | (39.7)         |
| <b>Children 1–18 years old</b>    | 1,660             | 1,880 | (25.4)         | 452                                     | 1,793   | (51.8)         |
| Boys                              | 857               | 2,017 | (39.9)         | 231                                     | 2,002   | (78.7)         |
| Girls                             | 803               | 1,738 | (31.0)         | 221                                     | 1,575 * | (66.7)         |
| <b>Adults 19–59 years old</b>     | 1,013             | 2,368 | (49.6)         | 638                                     | 2,347   | (59.6)         |
| Men                               | 447               | 2,800 | (81.0)         | 329                                     | 2,758   | (104.4)        |
| Women                             | 566               | 1,939 | (57.4)         | 309                                     | 1,940   | (58.1)         |
| <b>Older adults 60+ years old</b> | 310               | 1,714 | (60.6)         | 211                                     | 1,772   | (62.3)         |
| Men                               | 130               | 1,999 | (116.1)        | 110                                     | 2,094   | (97.5)         |
| Women                             | 180               | 1,485 | (57.0)         | 101                                     | 1,512   | (80.6)         |

See notes at end of table.

**Table G.10a. Percentile Distribution of Mean Daily Calorie Intakes for Matched SNAP Participants and Income-Eligible Nonparticipants by Age Group and Gender**

| Subgroup                                       | 5th     | 10th      | 15th      | 25th      | 50th      | 75th      | 85th      | 90th     | 95th  |
|--|---------|-----------|-----------|-----------|-----------|-----------|-----------|----------|-------|
| <b>Men and boys</b>                            |         |           |           |           |           |           |           |          |       |
| <b>SNAP participants</b>                       | 1,473   | 1,651     | 1,774     | 1,974     | 2,392     | 2,877     | 3,168     | 3,377    | 3,699 |
| Children 1–18 years old                        | 1,496   | 1,600     | 1,672     | 1,783     | 1,997     | 2,230     | 2,365     | 2,461    | 2,604 |
| Adults 19–59 years old                         | 1,612   | 1,822     | 1,966     | 2,204     | 2,706     | 3,293     | 3,650     | 3,907    | 4,309 |
| Older adults 60+ years old                     | 965     | 1,147     | 1,274     | 1,481     | 1,927     | 2,438     | 2,744     | 2,960    | 3,282 |
| <b>Matched income-eligible nonparticipants</b> | 1,419   | 1,574     | 1,682     | 1,862     | 2,235     | 2,658     | 2,920     | 3,110    | 3,405 |
| Children 1–18 years old                        | 920 *** | 1,008 *** | 1,068 *** | 1,169 *** | 1,372 *** | 1,599 *** | 1,736 *** | 1,830 ** | 1,977 |
| Adults 19–59 years old                         | 1,702   | 1,886     | 2,014     | 2,225     | 2,672     | 3,188     | 3,511     | 3,749    | 4,113 |
| Older adults 60+ years old                     | 1,211   | 1,371     | 1,485     | 1,677     | 2,053     | 2,457     | 2,699     | 2,873    | 3,158 |
| <b>Women and girls</b>                         |         |           |           |           |           |           |           |          |       |
| <b>SNAP participants</b>                       | 1,082   | 1,213     | 1,302     | 1,446     | 1,748     | 2,094     | 2,303     | 2,454    | 2,693 |
| Children 1–18 years old                        | 1,202   | 1,303     | 1,374     | 1,485     | 1,710     | 1,959     | 2,108     | 2,210    | 2,374 |
| Adults 19–59 years old                         | 1,104   | 1,254     | 1,357     | 1,522     | 1,873     | 2,281     | 2,530     | 2,711    | 3,003 |
| Older adults 60+ years old                     | 883     | 996       | 1,069     | 1,195     | 1,449     | 1,736     | 1,907     | 2,029    | 2,210 |
| <b>Matched income-eligible nonparticipants</b> | 1,140   | 1,259     | 1,335     | 1,465     | 1,731     | 2,026     | 2,202     | 2,328    | 2,521 |
| Children 1–18 years old                        | 1,061   | 1,154     | 1,215     | 1,321     | 1,546     | 1,793     | 1,939     | 2,041    | 2,200 |
| Adults 19–59 years old                         | 1,231   | 1,367     | 1,455     | 1,603     | 1,901     | 2,231     | 2,425     | 2,569    | 2,784 |
| Older adults 60+ years old                     | 983     | 1,083     | 1,144     | 1,253     | 1,476     | 1,730     | 1,892     | 1,999    | 2,166 |

Notes: Estimates are based on two dietary recalls per person. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population, such that different age distributions of SNAP participants and nonparticipants are accounted for. Significant differences in estimates are noted by \* $p < .05$ , \*\* $p < .01$ , or \*\*\* $p < .001$  and based on a  $t$ -test for difference in means between SNAP participants and matched income-eligible nonparticipants. Characteristics retained in the final propensity score estimation model included wave of NHANES; gender; race/ethnicity; age; US citizenship; education (highest grade completed); total number of people in household; ratio of income to poverty; annual household income; annual family income; monthly family income; total savings/cash assets for the family; presence of income from Supplemental Security Income; presence of income from State/county cash assistance; and money spent at supermarket/grocery store, on nonfood items, at other stores, on eating out, and on carryout/delivered foods. The match was completed with replacement using the SAS macro %PSMatching. SNAP participants consist of individuals in households that at the time of data collection reported receiving SNAP benefits.

– Denotes not applicable

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES respondents 1+ years old with complete day 1 and day 2 dietary recall data. Sample excludes pregnant and breastfeeding women 20–44 years old; pregnant and breastfeeding women outside of these age ranges could not be identified in the data.

**Table G.11. Saturated Fats, Added Sugars, and Alcohol: Mean Intakes on a Given Day for Matched SNAP Participants and Income-Eligible Nonparticipants by Age Group and Gender**

| Subgroup   | SNAP Participants        |                | Matched Income-Eligible Nonparticipants |                |
|--|--------------------------|----------------|---|----------------|
|  | Mean Percent of Calories | Standard Error | Mean Percent of Calories                | Standard Error |
| <b>Percentage of calories from saturated fat</b> |                          |                |   |                |
| <b>All individuals 2+ years old</b>              |                          |                |   |                |
| <i>Sample size</i>                               | 2,863                    | –              | 1,282                                   | –              |
| Both genders                                     | 10.8                     | (0.13)         | 10.7                                    | (0.14)         |
| Men and boys                                     | 10.6                     | (0.20)         | 11.0                                    | (0.21)         |
| Women and girls                                  | 10.9                     | (0.17)         | 10.4 *                                  | (0.17)         |
| <b>Children 2–18 years old</b>                   |                          |                |   |                |
| <i>Sample size</i>                               | 1,540                    | –              | 433                                     | –              |
| Both genders                                     | 11.5                     | (0.17)         | 10.9 *                                  | (0.21)         |
| Boys   | 11.4                     | (0.20)         | 11.5                                    | (0.37)         |
| Girls  | 11.5                     | (0.25)         | 10.5 *                                  | (0.34)         |
| <b>Adults 19–59 years old</b>                    |                          |                |   |                |
| <i>Sample size</i>                               | 1,013                    | –              | 638                                     | –              |
| Both genders                                     | 10.6                     | (0.15)         | 10.4                                    | (0.24)         |
| Men  | 10.3                     | (0.24)         | 10.8                                    | (0.28)         |
| Women  | 10.8                     | (0.19)         | 10.1 *                                  | (0.29)         |
| <b>Older adults 60+ years old</b>                |                          |                |   |                |
| <i>Sample size</i>                               | 310                      | –              | 211                                     | –              |
| Both genders                                     | 10.6                     | (0.34)         | 11.1                                    | (0.32)         |
| Men  | 10.6                     | (0.31)         | 11.3                                    | (0.44)         |
| Women  | 10.6                     | (0.46)         | 11.0                                    | (0.49)         |
| <b>Percentage of calories from added sugars</b>  |                          |                |   |                |
| <b>All individuals 2+ years old</b>              |                          |                |   |                |
| <i>Sample size</i>                               | 2,863                    | –              | 1,282                                   | –              |
| Both genders                                     | 16.0                     | (0.55)         | 13.6 ***                                | (0.32)         |
| Men and boys                                     | 16.1                     | (0.77)         | 13.5 **                                 | (0.52)         |
| Women and girls                                  | 15.9                     | (0.53)         | 13.7 **                                 | (0.50)         |
| <b>Children 2–18 years old</b>                   |                          |                |   |                |
| <i>Sample size</i>                               | 1,540                    | –              | 433                                     | –              |
| Both genders                                     | 15.4                     | (0.46)         | 14.9                                    | (0.72)         |
| Boys   | 15.4                     | (0.87)         | 14.9                                    | (0.68)         |
| Girls  | 15.4                     | (0.45)         | 14.8                                    | (1.17)         |
| <b>Adults 19–59 years old</b>                    |                          |                |   |                |
| <i>Sample size</i>                               | 1,013                    | –              | 638                                     | –              |
| Both genders                                     | 17.2                     | (0.72)         | 13.8 ***                                | (0.46)         |
| Men  | 17.3                     | (1.04)         | 13.9 **                                 | (0.71)         |
| Women  | 17.2                     | (0.72)         | 13.8 ***                                | (0.73)         |

| Subgroup                                   | SNAP Participants        |                | Matched Income-Eligible Nonparticipants |                |
|--|--------------------------|----------------|---|----------------|
|  | Mean Percent of Calories | Standard Error | Mean Percent of Calories                | Standard Error |
| <b>Older adults 60+ years old</b>          |                          |                |   |                |
| <i>Sample size</i>                         | 310                      | –              | 211                                     | –              |
| Both genders                               | 12.0                     | (0.70)         | 11.0                                    | (0.63)         |
| Men  | 11.8                     | (0.88)         | 9.5                                     | (1.01)         |
| Women                                      | 12.1                     | (0.85)         | 12.2                                    | (0.72)         |
| <b>Percentage of calories from alcohol</b> |                          |                |   |                |
| <b>All individuals 2+ years old</b>        |                          |                |   |                |
| <i>Sample size</i>                         | 2,863                    | -              | 1,282                                   | -              |
| Both genders                               | 1.0                      | (0.18)         | 1.2                                     | (0.17)         |
| Men and boys                               | 1.5                      | (0.35)         | 1.5                                     | (0.35)         |
| Women and girls                            | 0.6                      | (0.16)         | 0.8                                     | (0.18)         |
| <b>Children 2–18 years old</b>             |                          |                |   |                |
| <i>Sample size</i>                         | 1,540                    | –              | 433                                     | –              |
| Both genders                               | 0.0 <b>u</b>             | (0.01)         | 0.1 <b>u</b>                            | (0.04)         |
| Boys                                       | 0.0 <b>u</b>             | (0.01)         | 0.1 <b>u</b>                            | (0.06)         |
| Girls                                      | 0.0 <b>u</b>             | (0.02)         | 0.1 <b>u</b>                            | (0.07)         |
| <b>Adults 19–59 years old</b>              |                          |                |   |                |
| <i>Sample size</i>                         | 1,013                    | -              | 638                                     | -              |
| Both genders                               | 1.4                      | (0.27)         | 1.7                                     | (0.29)         |
| Men  | 2.2                      | (0.52)         | 2.1                                     | (0.57)         |
| Women                                      | 0.8 <b>u</b>             | (0.24)         | 1.4                                     | (0.31)         |
| <b>Older adults 60+ years old</b>          |                          |                |   |                |
| <i>Sample size</i>                         | 310                      | –              | 211                                     | –              |
| Both genders                               | 0.9 <b>u</b>             | (0.28)         | 0.8 <b>u</b>                            | (0.26)         |
| Men  | 1.1 <b>u</b>             | (0.44)         | 1.5 <b>u</b>                            | (0.53)         |
| Women                                      | 0.7 <b>u</b>             | (0.38)         | 0.3 <b>u</b>                            | (0.18)         |

Notes: Estimates are based on day 1 dietary recalls. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population, such that different age distributions of SNAP participants and nonparticipants are accounted for. Significant differences in estimates are noted by \* $p < .05$ , \*\* $p < .01$ , or \*\*\* $p < .001$  and based on a  $t$ -test for difference in means between SNAP participants and matched income-eligible nonparticipants. Characteristics retained in the final propensity score estimation model included wave of NHANES; gender; race/ethnicity; age; US citizenship; education (highest grade completed); total number of people in household; ratio of income to poverty; annual household income; annual family income; monthly family income; total savings/cash assets for the family; presence of income from Supplemental Security Income; presence of income from State/county cash assistance; and money spent at supermarket/grocery store, on nonfood items, at other stores, on eating out, and on carryout/delivered foods. The match was completed with replacement using the SAS macro %PSMatching. SNAP participants consist of individuals in households that at the time of data collection reported receiving SNAP benefits.

**u** Indicates individual estimates did not meet the standards of reliability or precision because of large coefficient of variation  
 – Denotes not applicable

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES respondents aged 2 and older with complete day 1 dietary recall data. Sample excludes pregnant and breastfeeding women 20–44 years old; pregnant and breastfeeding women outside of these age ranges could not be identified in the data.

**Table G.12. Calcium (Milligrams): Mean Usual Intakes for Matched SNAP Participants and Income-Eligible Nonparticipants by Age Group and Gender**

| Subgroup  | SNAP Participants |       |                | Matched Income-Eligible Nonparticipants |       |                |
|---|-------------------|-------|----------------|---|-------|----------------|
|   | Sample Size       | Mean  | Standard Error | Sample Size                             | Mean  | Standard Error |
| <b>Mean usual intake</b>  |                   |       |                |   |       |                |
| <b>All individuals</b>  | 2,983             | 989   | (22.0)         | 1,301                                   | 967   | (24.3)         |
| Men and boys  | 1,434             | 1,128 | (39.2)         | 670                                     | 1,113 | (41.5)         |
| Women and girls   | 1,549             | 854   | (21.1)         | 631                                     | 825   | (26.0)         |
| <b>Children 1–18 years old</b>  | 1,660             | 1,010 | (22.5)         | 452                                     | 988   | (35.8)         |
| Boys  | 857               | 1,101 | (38.7)         | 231                                     | 1,112 | (51.8)         |
| Girls   | 803               | 913   | (21.8)         | 221                                     | 857   | (49.2)         |
| <b>Adults 19–59 years old</b>   | 1,013             | 1,033 | (35.9)         | 638                                     | 1,004 | (37.2)         |
| Men   | 447               | 1,198 | (63.6)         | 329                                     | 1,165 | (65.8)         |
| Women   | 566               | 870   | (33.5)         | 309                                     | 844   | (34.9)         |
| <b>Older adults 60+ years old</b>   | 310               | 827   | (34.1)         | 211                                     | 827   | (44.5)         |
| Men   | 130               | 932   | (58.6)         | 110                                     | 938   | (64.1)         |
| Women   | 180               | 743   | (39.5)         | 101                                     | 738   | (61.6)         |
| <b>Percent of individuals with usual intake greater than estimated average requirements</b> |                   |       |                |   |       |                |
| <b>All individuals</b>  | 2,983             | 55.5  | (2.24)         | 1,301                                   | 56.8  | (2.38)         |
| Men and boys  | 1,434             | 68.1  | (3.18)         | 670                                     | 74.7  | (3.23)         |
| Women and girls   | 1,549             | 43.4  | (3.16)         | 631                                     | 39.6  | (3.50)         |
| <b>Children 1–18 years old</b>  | 1,660             | 59.7  | (5.53)         | 452                                     | 57.3  | (4.34)         |
| Boys  | 857               | 69.5  | (9.86)         | 231                                     | 72.7  | (6.65)         |
| Girls   | 803               | 49.3  | (4.64)         | 221                                     | 41.2  | (5.51)         |
| <b>Adults 19–59 years old</b>   | 1,013             | 61.5  | (2.88)         | 638                                     | 65.4  | (3.42)         |
| Men   | 447               | 72.4  | (2.77)         | 329                                     | 83.3  | (4.40)         |
| Women   | 566               | 50.8  | (5.02)         | 309                                     | 47.8  | (5.24)         |
| <b>Older adults 60+ years old</b>   | 310               | 32.0  | (3.81)         | 211                                     | 30.0  | (4.70)         |
| Men   | 130               | 51.5  | (6.48)         | 110                                     | 48.4  | (6.24)         |
| Women   | 180               | 16.3  | (4.49)         | 101                                     | 15.1  | (6.83)         |

See notes at end of table.

**Table G.12a. Calcium (Milligrams): Percentile Distribution of Mean Usual Intakes for Matched SNAP Participants and Income-Eligible Nonparticipants by Age Group and Gender**

| Subgroup                                       | 5th | 10th | 15th | 25th | 50th  | 75th  | 85th  | 90th  | 95th  |
|--|-----|------|------|------|-------|-------|-------|-------|-------|
| <b>Men and boys</b>                            |     |      |      |      |       |       |       |       |       |
| <b>SNAP participants</b>                       | 504 | 600  | 670  | 787  | 1,049 | 1,382 | 1,597 | 1,757 | 2,015 |
| Children 1–18 years old                        | 683 | 762  | 818  | 905  | 1,078 | 1,274 | 1,389 | 1,473 | 1,598 |
| Adults 19–59 years old                         | 459 | 563  | 639  | 772  | 1,083 | 1,495 | 1,770 | 1,979 | 2,321 |
| Older adults 60+ years old                     | 389 | 483  | 550  | 659  | 894   | 1,163 | 1,323 | 1,437 | 1,603 |
| <b>Matched income-eligible nonparticipants</b> | 616 | 702  | 761  | 862  | 1,074 | 1,317 | 1,469 | 1,580 | 1,754 |
| Children 1–18 years old                        | 701 | 776  | 828  | 915  | 1,092 | 1,287 | 1,403 | 1,482 | 1,602 |
| Adults 19–59 years old                         | 644 | 736  | 799  | 903  | 1,124 | 1,377 | 1,536 | 1,652 | 1,832 |
| Older adults 60+ years old                     | 395 | 475  | 535  | 644  | 878   | 1,159 | 1,342 | 1,480 | 1,717 |
| <b>Women and girls</b>                         |     |      |      |      |       |       |       |       |       |
| <b>SNAP participants</b>                       | 473 | 539  | 586  | 661  | 823   | 1,012 | 1,128 | 1,211 | 1,345 |
| Children 1–18 years old                        | 589 | 649  | 691  | 759  | 895   | 1,048 | 1,139 | 1,202 | 1,303 |
| Adults 19–59 years old                         | 464 | 535  | 584  | 663  | 835   | 1,037 | 1,162 | 1,253 | 1,400 |
| Older adults 60+ years old                     | 362 | 425  | 468  | 545  | 707   | 901   | 1,022 | 1,110 | 1,245 |
| <b>Matched income-eligible nonparticipants</b> | 444 | 510  | 553  | 629  | 791   | 982   | 1,101 | 1,189 | 1,327 |
| Children 1–18 years old                        | 513 | 571  | 611  | 681  | 830   | 1,004 | 1,107 | 1,182 | 1,298 |
| Adults 19–59 years old                         | 427 | 498  | 546  | 628  | 803   | 1,012 | 1,143 | 1,243 | 1,400 |
| Older adults 60+ years old                     | 412 | 470  | 506  | 572  | 711   | 873   | 977   | 1,047 | 1,159 |

Notes: Estimates are based on two dietary recalls per person. Estimated average requirement is the average daily nutrient intake level estimated to meet the requirements for half of the healthy individuals in a life stage or gender group. The data reflect nutrient intake from foods and beverages but do not include the contribution of vitamin and mineral supplements. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population, such that different age distributions of SNAP participants and nonparticipants are accounted for. Significant differences in estimates are noted by \* $p < .05$ , \*\* $p < .01$ , or \*\*\* $p < .001$  and based on a  $t$ -test for difference in means between SNAP participants and matched income-eligible nonparticipants. Characteristics retained in the final propensity score estimation model included wave of NHANES; gender; race/ethnicity; age; US citizenship; education (highest grade completed); total number of people in household; ratio of income to poverty; annual household income; annual family income; monthly family income; total savings/cash assets for the family; presence of income from Supplemental Security Income; presence of income from State/county cash assistance; and money spent at supermarket/grocery store, on nonfood items, at other stores, on eating out, and on carryout/delivered foods. The match was completed with replacement using the SAS macro %PSMatching. SNAP participants consist of individuals in households that at the time of data collection reported receiving SNAP benefits.

u Indicates individual estimates did not meet the standards of reliability or precision because of large coefficient of variation

– Denotes not applicable

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES respondents 1+ years old with complete day 1 and day 2 dietary recall data. Sample excludes pregnant and breastfeeding women 20–44 years old; pregnant and breastfeeding women outside of these age ranges could not be identified in the data.

**Table G.13. Vitamin D (Micrograms): Mean Usual Intakes for Matched SNAP Participants and Income-Eligible Nonparticipants by Age Group and Gender**

| Subgroup  | SNAP Participants |        |                | Matched Income-Eligible Nonparticipants |         |                |
|---|-------------------|--------|----------------|---|---------|----------------|
|   | Sample Size       | Mean   | Standard Error | Sample Size                             | Mean    | Standard Error |
| <b>Mean usual intake</b>  |                   |        |                |   |         |                |
| <b>All individuals</b>  | 2,983             | 5.2    | (0.16)         | 1,301                                   | 4.6 *   | (0.19)         |
| Men and boys  | 1,434             | 6.1    | (0.27)         | 670                                     | 5.1 **  | (0.28)         |
| Women and girls   | 1,549             | 4.4    | (0.20)         | 631                                     | 4.2     | (0.25)         |
| <b>Children 1–18 years old</b>  | 1,660             | 5.7    | (0.18)         | 452                                     | 5.6     | (0.25)         |
| Boys  | 857               | 6.2    | (0.30)         | 231                                     | 6.3     | (0.34)         |
| Girls   | 803               | 5.2    | (0.19)         | 221                                     | 4.8     | (0.36)         |
| <b>Adults 19–59 years old</b>   | 1,013             | 5.1    | (0.26)         | 638                                     | 4.1 **  | (0.27)         |
| Men   | 447               | 6.2    | (0.41)         | 329                                     | 4.6 *   | (0.44)         |
| Women   | 566               | 4.1    | (0.31)         | 309                                     | 3.6     | (0.33)         |
| <b>Older adults 60+ years old</b>   | 310               | 4.9    | (0.33)         | 211                                     | 4.7     | (0.45)         |
| Men   | 130               | 5.8    | (0.58)         | 110                                     | 4.6     | (0.52)         |
| Women   | 180               | 4.1    | (0.38)         | 101                                     | 4.8     | (0.69)         |
| <b>Percent of individuals with usual intake greater than estimated average requirements</b> |                   |        |                |   |         |                |
| <b>All individuals</b>  | 2,983             | 7.4    | (1.01)         | 1,301                                   | 3.9 *   | (0.95)         |
| Men and boys  | 1,434             | 12.4   | (1.87)         | 670                                     | 5.3 **  | (1.51)         |
| Women and girls   | 1,549             | 2.6 u  | (0.83)         | 631                                     | 2.5 u   | (1.16)         |
| <b>Children 1–18 years old</b>  | 1,660             | 4.8    | (1.13)         | 452                                     | 5.7 u   | (1.72)         |
| Boys  | 857               | 6.9    | (2.06)         | 231                                     | 9.2 u   | (2.88)         |
| Girls   | 803               | 2.5 u  | (0.83)         | 221                                     | 2.0 u   | (1.81)         |
| <b>Adults 19–59 years old</b>   | 1,013             | 8.8    | (1.59)         | 638                                     | 2.6 **u | (1.14)         |
| Men   | 447               | 15.5   | (2.92)         | 329                                     | 3.6 **u | (2.13)         |
| Women   | 566               | 2.1 u  | (1.25)         | 309                                     | 1.5 u   | (0.86)         |
| <b>Older adults 60+ years old</b>   | 310               | 6.7    | (1.97)         | 211                                     | 5.5 u   | (2.95)         |
| Men   | 130               | 10.1 u | (3.70)         | 110                                     | 5.2 u   | (2.95)         |
| Women   | 180               | 3.9 u  | (1.93)         | 101                                     | 5.7 u   | (4.75)         |

See notes at end of table.

**Table G.13a. Vitamin D (Micrograms): Percentile Distribution of Mean Usual Intakes for Matched SNAP Participants and Income-Eligible Nonparticipants by Age Group and Gender**

| Subgroup                                       | 5th   | 10th  | 15th  | 25th | 50th | 75th  | 85th  | 90th | 95th |
|--|-------|-------|-------|------|------|-------|-------|------|------|
| <b>Men and boys</b>                            |       |       |       |      |      |       |       |      |      |
| <b>SNAP participants</b>                       | 1.8   | 2.3   | 2.8   | 3.5  | 5.3  | 7.8   | 9.5   | 10.9 | 13.1 |
| Children 1–18 years old                        | 2.9   | 3.4   | 3.9   | 4.5  | 5.9  | 7.5   | 8.5   | 9.2  | 10.4 |
| Adults 19–59 years old                         | 1.3   | 1.9   | 2.3   | 3.1  | 5.1  | 8.1   | 10.2  | 11.8 | 14.7 |
| Older adults 60+ years old                     | 1.8   | 2.3   | 2.7   | 3.4  | 5.2  | 7.5   | 9.0   | 10.1 | 11.8 |
| <b>Matched income-eligible nonparticipants</b> | 1.8   | 2.3   | 2.6   | 3.2  | 4.6  | 6.4 * | 7.5 * | 8.4  | 9.8  |
| Children 1–18 years old                        | 2.8   | 3.4   | 3.8   | 4.5  | 6.1  | 7.8   | 8.9   | 9.7  | 10.8 |
| Adults 19–59 years old                         | 1.6   | 2.0   | 2.3   | 2.9  | 4.2  | 5.9   | 7.0   | 7.9  | 9.3  |
| Older adults 60+ years old                     | 1.3 u | 1.7 u | 2.0   | 2.6  | 4.0  | 5.8   | 7.1   | 8.2  | 10.0 |
| <b>Women and girls</b>                         |       |       |       |      |      |       |       |      |      |
| <b>SNAP participants</b>                       | 1.7   | 2.1   | 2.4   | 2.9  | 4.0  | 5.4   | 6.4   | 7.1  | 8.3  |
| Children 1–18 years old                        | 2.5   | 3.0   | 3.3   | 3.8  | 4.9  | 6.3   | 7.1   | 7.7  | 8.6  |
| Adults 19–59 years old                         | 1.6   | 2.0   | 2.3   | 2.7  | 3.8  | 5.1   | 6.0   | 6.7  | 7.9  |
| Older adults 60+ years old                     | 1.0   | 1.4   | 1.7   | 2.2  | 3.5  | 5.4   | 6.7   | 7.7  | 9.3  |
| <b>Matched income-eligible nonparticipants</b> | 1.6   | 1.9   | 2.1   | 2.6  | 3.7  | 5.2   | 6.2   | 7.0  | 8.4  |
| Children 1–18 years old                        | 2.3   | 2.7   | 3.0   | 3.5  | 4.6  | 5.9   | 6.7   | 7.3  | 8.3  |
| Adults 19–59 years old                         | 1.2 u | 1.5 u | 1.7 u | 2.2  | 3.2  | 4.6   | 5.6   | 6.4  | 7.7  |
| Older adults 60+ years old                     | 1.6   | 2.0   | 2.2   | 2.8  | 4.0  | 5.9   | 7.3   | 8.4  | 10.3 |

Notes: Estimates are based on two dietary recalls per person. Estimated average requirement is the average daily nutrient intake level estimated to meet the requirements for half of the healthy individuals in a life stage or gender group. The data reflect nutrient intake from foods and beverages but do not include the contribution of vitamin and mineral supplements. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population, such that different age distributions of SNAP participants and nonparticipants are accounted for. Significant differences in estimates are noted by \* $p < .05$ , \*\* $p < .01$ , or \*\*\* $p < .001$  and based on a  $t$ -test for difference in means between SNAP participants and matched income-eligible nonparticipants. Characteristics retained in the final propensity score estimation model included wave of NHANES; gender; race/ethnicity; age; US citizenship; education (highest grade completed); total number of people in household; ratio of income to poverty; annual household income; annual family income; monthly family income; total savings/cash assets for the family; presence of income from Supplemental Security Income; presence of income from State/county cash assistance; and money spent at supermarket/grocery store, on nonfood items, at other stores, on eating out, and on carryout/delivered foods. The match was completed with replacement using the SAS macro %PSMatching. SNAP participants consist of individuals in households that at the time of data collection reported receiving SNAP benefits.

**u** Indicates individual estimates did not meet the standards of reliability or precision because of large coefficient of variation

– Denotes not applicable

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES respondents 1+ years old with complete day 1 and day 2 dietary recall data. Sample excludes pregnant and breastfeeding women 20–44 years old; pregnant and breastfeeding women outside of these age ranges could not be identified in the data.

**Table G.14. Dietary Fiber (Grams): Mean Usual Intakes for Matched SNAP Participants and Income-Eligible Nonparticipants by Age Group and Gender**

| Subgroup   | SNAP Participants |      |                | Matched Income-Eligible Nonparticipants |          |                |
|--|-------------------|------|----------------|---|----------|----------------|
|  | Sample Size       | Mean | Standard Error | Sample Size                             | Mean     | Standard Error |
| <b>Mean usual intake</b>                                 |                   |      |                |   |          |                |
| <b>All individuals</b>                                   | 2,983             | 15.0 | (0.31)         | 1,301                                   | 16.9 *** | (0.42)         |
| Men and boys   | 1,434             | 16.8 | (0.53)         | 670                                     | 18.8 *   | (0.66)         |
| Women and girls  | 1,549             | 13.3 | (0.33)         | 631                                     | 15.0 **  | (0.52)         |
| <b>Children 1–18 years old</b>                           | 1,660             | 14.0 | (0.28)         | 452                                     | 13.4     | (0.49)         |
| Boys   | 857               | 15.1 | (0.45)         | 231                                     | 14.3     | (0.71)         |
| Girls  | 803               | 13.0 | (0.31)         | 221                                     | 12.5     | (0.66)         |
| <b>Adults 19–59 years old</b>                            | 1,013             | 15.7 | (0.49)         | 638                                     | 18.7 *** | (0.65)         |
| Men  | 447               | 18.0 | (0.85)         | 329                                     | 20.9 *   | (1.06)         |
| Women  | 566               | 13.5 | (0.50)         | 309                                     | 16.5 **  | (0.77)         |
| <b>Older adults 60+ years old</b>                        | 310               | 14.3 | (0.62)         | 211                                     | 15.9     | (0.83)         |
| Men  | 130               | 15.7 | (1.01)         | 110                                     | 18.6     | (1.14)         |
| Women  | 180               | 13.2 | (0.79)         | 101                                     | 13.8     | (1.18)         |
| <b>Mean usual intake as a percent of adequate intake</b> |                   |      |                |   |          |                |
| <b>All individuals</b>                                   | 2,983             | 53.8 | (1.04)         | 1,301                                   | 60.3 *** | (1.46)         |
| Men and boys   | 1,434             | 50.9 | (1.53)         | 670                                     | 56.6 *   | (1.94)         |
| Women and girls  | 1,549             | 56.5 | (1.42)         | 631                                     | 63.8 **  | (2.19)         |
| <b>Children 1–18 years old</b>                           | 1,660             | 52.2 | (0.93)         | 452                                     | 50.7     | (1.77)         |
| Boys   | 857               | 51.8 | (1.41)         | 231                                     | 50.0     | (2.40)         |
| Girls  | 803               | 52.5 | (1.21)         | 221                                     | 51.5     | (2.62)         |
| <b>Adults 19–59 years old</b>                            | 1,013             | 53.0 | (1.58)         | 638                                     | 63.2 *** | (2.17)         |
| Men  | 447               | 50.1 | (2.40)         | 329                                     | 58.0 *   | (2.99)         |
| Women  | 566               | 56.0 | (2.07)         | 309                                     | 68.3 **  | (3.14)         |
| <b>Older adults 60+ years old</b>                        | 310               | 58.0 | (2.56)         | 211                                     | 63.9     | (3.54)         |
| Men  | 130               | 52.2 | (3.35)         | 110                                     | 61.8     | (3.81)         |
| Women  | 180               | 62.7 | (3.74)         | 101                                     | 65.5     | (5.60)         |

See notes at end of table.

**Table G.14a. Dietary Fiber (Grams): Percentile Distribution of Mean Usual Intakes for Matched SNAP Participants and Income-Eligible Nonparticipants by Age Group and Gender**

| Subgroup                                       | 5th   | 10th  | 15th   | 25th   | 50th   | 75th   | 85th   | 90th | 95th |
|--|-------|-------|--------|--------|--------|--------|--------|------|------|
| <b>Men and boys</b>                            |       |       |        |        |        |        |        |      |      |
| <b>SNAP participants</b>                       | 7.7   | 9.2   | 10.2   | 12.0   | 15.9   | 20.6   | 23.6   | 25.8 | 29.2 |
| Children 1–18 years old                        | 8.7   | 9.9   | 10.7   | 12.1   | 14.7   | 17.7   | 19.5   | 20.8 | 22.7 |
| Adults 19–59 years old                         | 7.5   | 9.1   | 10.2   | 12.2   | 16.7   | 22.3   | 25.9   | 28.6 | 32.9 |
| Older adults 60+ years old                     | 7.1   | 8.5   | 9.5    | 11.2   | 14.9   | 19.3   | 22.0   | 23.9 | 26.9 |
| <b>Matched income-eligible nonparticipants</b> | 9.3   | 10.9  | 12.0   | 13.9   | 18.0   | 22.8   | 25.7   | 27.9 | 31.3 |
| Children 1–18 years old                        | 9.8   | 10.6  | 11.1   | 12.0   | 13.9   | 16.2   | 17.6   | 18.7 | 20.2 |
| Adults 19–59 years old                         | 9.5   | 11.4  | 12.8   | 15.0   | 19.9   | 25.6   | 29.2   | 31.8 | 35.7 |
| Older adults 60+ years old                     | 7.9   | 9.6   | 10.8   | 13.0   | 17.6   | 22.9   | 26.3   | 28.8 | 33.0 |
| <b>Women and girls</b>                         |       |       |        |        |        |        |        |      |      |
| <b>SNAP participants</b>                       | 6.0   | 7.2   | 8.0    | 9.5    | 12.6   | 16.3   | 18.7   | 20.4 | 23.1 |
| Children 1–18 years old                        | 7.4   | 8.4   | 9.1    | 10.2   | 12.6   | 15.3   | 16.9   | 18.0 | 19.8 |
| Adults 19–59 years old                         | 5.7   | 7.0   | 7.9    | 9.3    | 12.6   | 16.7   | 19.2   | 21.1 | 24.2 |
| Older adults 60+ years old                     | 5.1   | 6.4   | 7.3    | 8.9    | 12.3   | 16.6   | 19.2   | 21.1 | 24.0 |
| <b>Matched income-eligible nonparticipants</b> | 8.3 * | 9.5 * | 10.2 * | 11.5 * | 14.3 * | 17.7   | 19.9   | 21.5 | 23.9 |
| Children 1–18 years old                        | 8.7   | 9.4   | 9.8    | 10.5   | 12.1   | 14.1   | 15.3   | 16.2 | 17.6 |
| Adults 19–59 years old                         | 7.2   | 8.7   | 9.8    | 11.6   | 15.6 * | 20.3 * | 23.3 * | 25.5 | 29.0 |
| Older adults 60+ years old                     | 11.1  | 11.6  | 11.9   | 12.4   | 13.5   | 14.8   | 15.7   | 16.3 | 17.1 |

Notes: Estimates are based on two dietary recalls per person. Adequate intake is the recommended average daily intake level. The data reflect nutrient intake from foods and beverages but do not include the contribution of vitamin and mineral supplements. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population, such that different age distributions of SNAP participants and nonparticipants are accounted for. Significant differences in estimates are noted by \* $p < .05$ , \*\* $p < .01$ , or \*\*\* $p < .001$  and based on a  $t$ -test for difference in means between SNAP participants and matched income-eligible nonparticipants. Characteristics retained in the final propensity score estimation model included wave of NHANES; gender; race/ethnicity; age; US citizenship; education (highest grade completed); total number of people in household; ratio of income to poverty; annual household income; annual family income; monthly family income; total savings/cash assets for the family; presence of income from Supplemental Security Income; presence of income from State/county cash assistance; and money spent at supermarket/grocery store, on nonfood items, at other stores, on eating out, and on carryout/delivered foods. The match was completed with replacement using the SAS macro %PSMatching. SNAP participants consist of individuals in households that at the time of data collection reported receiving SNAP benefits.

– Denotes not applicable

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES respondents 1+ years old with complete day 1 and day 2 dietary recall data. Sample excludes pregnant and breastfeeding women 20–44 years old; pregnant and breastfeeding women outside of these age ranges could not be identified in the data.

**Table G.15. Iron (Milligrams): Mean Usual Intakes for Matched SNAP Participants and Income-Eligible Nonparticipants by Age Group and Gender**

| Subgroup  | SNAP Participants |      |                | Matched Income-Eligible Nonparticipants |        |                |
|---|-------------------|------|----------------|---|--------|----------------|
|   | Sample Size       | Mean | Standard Error | Sample Size                             | Mean   | Standard Error |
| <b>Mean usual intake</b>  |                   |      |                |   |        |                |
| <b>All individuals</b>  | 2,983             | 14.3 | (0.22)         | 1,301                                   | 14.8   | (0.33)         |
| Men and boys  | 1,434             | 16.2 | (0.35)         | 670                                     | 17.3   | (0.55)         |
| Women and girls   | 1,549             | 12.5 | (0.27)         | 631                                     | 12.5   | (0.37)         |
| <b>Children 1–18 years old</b>  | 1,660             | 14.0 | (0.32)         | 452                                     | 13.2   | (0.46)         |
| Boys  | 857               | 15.2 | (0.54)         | 231                                     | 15.3   | (0.64)         |
| Girls   | 803               | 12.7 | (0.32)         | 221                                     | 11.0 * | (0.67)         |
| <b>Adults 19–59 years old</b>   | 1,013             | 14.9 | (0.30)         | 638                                     | 15.6   | (0.46)         |
| Men   | 447               | 17.1 | (0.45)         | 329                                     | 17.9   | (0.74)         |
| Women   | 566               | 12.7 | (0.40)         | 309                                     | 13.2   | (0.54)         |
| <b>Older adults 60+ years old</b>   | 310               | 13.0 | (0.60)         | 211                                     | 14.8   | (0.91)         |
| Men   | 130               | 15.0 | (1.13)         | 110                                     | 17.9   | (1.83)         |
| Women   | 180               | 11.3 | (0.59)         | 101                                     | 12.2   | (0.74)         |
| <b>Percent of individuals with usual intake greater than estimated average requirements</b> |                   |      |                |   |        |                |
| <b>All individuals</b>  | 2,983             | 97.1 | (0.80)         | 1,301                                   | 97.5   | (1.10)         |
| Men and boys  | 1,434             | 99.0 | (0.48)         | 670                                     | 99.4   | (0.38)         |
| Women and girls   | 1,549             | 95.3 | (1.51)         | 631                                     | 95.7   | (2.13)         |
| <b>Children 1–18 years old</b>  | 1,660             | 98.6 | (0.66)         | 452                                     | 97.3   | (2.04)         |
| Boys  | 857               | 98.9 | (0.91)         | 231                                     | 98.5   | (1.15)         |
| Girls   | 803               | 98.2 | (0.97)         | 221                                     | 96.1   | (4.00)         |
| <b>Adults 19–59 years old</b>   | 1,013             | 96.1 | (1.33)         | 638                                     | 96.9   | (1.72)         |
| Men   | 447               | 99.3 | (0.47)         | 329                                     | 99.9   | (0.27)         |
| Women   | 566               | 92.9 | (2.60)         | 309                                     | 93.9   | (3.41)         |
| <b>Older adults 60+ years old</b>   | 310               | 98.4 | (1.22)         | 211                                     | 99.6   | (0.50)         |
| Men   | 130               | 98.1 | (1.86)         | 110                                     | 99.1   | (1.12)         |
| Women   | 180               | 98.7 | (1.61)         | 101                                     | 100.0  | (0.06)         |

See notes at end of table.

**Table G.15a. Iron (Milligrams): Percentile Distribution of Mean Usual Intakes for Matched SNAP Participants and Income-Eligible Nonparticipants by Age Group and Gender**

| Subgroup                                       | 5th  | 10th | 15th | 25th  | 50th | 75th | 85th | 90th | 95th |
|--|------|------|------|-------|------|------|------|------|------|
| <b>Men and boys</b>                            |      |      |      |       |      |      |      |      |      |
| <b>SNAP participants</b>                       | 8.6  | 9.9  | 10.8 | 12.3  | 15.5 | 19.4 | 21.8 | 23.6 | 26.4 |
| Children 1–18 years old                        | 9.2  | 10.3 | 11.1 | 12.3  | 14.7 | 17.6 | 19.4 | 20.7 | 22.6 |
| Adults 19–59 years old                         | 8.7  | 10.1 | 11.0 | 12.7  | 16.2 | 20.5 | 23.2 | 25.2 | 28.3 |
| Older adults 60+ years old                     | 7.3  | 8.5  | 9.4  | 10.8  | 14.1 | 18.2 | 20.8 | 22.7 | 25.6 |
| <b>Matched income-eligible nonparticipants</b> | 10.0 | 11.2 | 12.1 | 13.5  | 16.6 | 20.2 | 22.5 | 24.2 | 26.9 |
| Children 1–18 years old                        | 9.3  | 10.3 | 11.0 | 12.3  | 14.8 | 17.8 | 19.7 | 21.0 | 23.0 |
| Adults 19–59 years old                         | 10.8 | 12.1 | 13.0 | 14.4  | 17.4 | 20.9 | 23.0 | 24.5 | 26.9 |
| Older adults 60+ years old                     | 8.2  | 9.5  | 10.6 | 12.4  | 16.6 | 21.8 | 25.3 | 28.0 | 32.9 |
| <b>Women and girls</b>                         |      |      |      |       |      |      |      |      |      |
| <b>SNAP participants</b>                       | 7.3  | 8.2  | 8.8  | 9.9   | 12.0 | 14.6 | 16.1 | 17.3 | 19.1 |
| Children 1–18 years old                        | 8.4  | 9.2  | 9.7  | 10.6  | 12.5 | 14.5 | 15.8 | 16.7 | 18.1 |
| Adults 19–59 years old                         | 7.2  | 8.1  | 8.8  | 9.9   | 12.3 | 15.0 | 16.7 | 18.0 | 20.0 |
| Older adults 60+ years old                     | 6.3  | 7.2  | 7.8  | 8.8   | 11.0 | 13.4 | 15.0 | 16.0 | 17.7 |
| <b>Matched income-eligible nonparticipants</b> | 7.6  | 8.5  | 9.1  | 10.0  | 12.1 | 14.5 | 16.0 | 17.1 | 18.8 |
| Children 1–18 years old                        | 6.0  | 6.8  | 7.3  | 8.3 * | 10.6 | 13.2 | 14.8 | 15.9 | 17.8 |
| Adults 19–59 years old                         | 7.5  | 8.5  | 9.2  | 10.3  | 12.8 | 15.6 | 17.4 | 18.7 | 20.7 |
| Older adults 60+ years old                     | 10.0 | 10.5 | 10.7 | 11.2  | 12.1 | 13.1 | 13.7 | 14.1 | 14.7 |

Notes: Estimates are based on two dietary recalls per person. Estimated average requirement is the average daily nutrient intake level estimated to meet the requirements for half of the healthy individuals in a life stage or gender group. The data reflect nutrient intake from foods and beverages but do not include the contribution of vitamin and mineral supplements. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population, such that different age distributions of SNAP participants and nonparticipants are accounted for. Significant differences in estimates are noted by \* $p < .05$ , \*\* $p < .01$ , or \*\*\* $p < .001$  and based on a  $t$ -test for difference in means between SNAP participants and matched income-eligible nonparticipants. SNAP participants consist of individuals in households that at the time of data collection reported receiving SNAP benefits.

– Denotes not applicable

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES respondents 1+ years old with complete day 1 and day 2 dietary recall data. Sample excludes pregnant and breastfeeding women 20–44 years old; pregnant and breastfeeding women outside of these age ranges could not be identified in the data.

**Table G.16. Potassium (Milligrams): Mean Usual Intakes for Matched SNAP Participants and Income-Eligible Nonparticipants by Age Group and Gender**

| Subgroup   | SNAP Participants |       |                | Matched Income-Eligible Nonparticipants |         |                |
|--|-------------------|-------|----------------|---|---------|----------------|
|  | Sample Size       | Mean  | Standard Error | Sample Size                             | Mean    | Standard Error |
| <b>Mean usual intake</b>                                 |                   |       |                |   |         |                |
| <b>All individuals</b>                                   | 2,983             | 2,424 | (39.8)         | 1,301                                   | 2,553 * | (46.3)         |
| Men and boys   | 1,434             | 2,772 | (67.7)         | 670                                     | 2,935   | (74.1)         |
| Women and girls  | 1,549             | 2,088 | (43.2)         | 631                                     | 2,183   | (56.2)         |
| <b>Children 1–18 years old</b>                           | 1,660             | 2,120 | (36.7)         | 452                                     | 2,155   | (72.7)         |
| Boys   | 857               | 2,292 | (59.9)         | 231                                     | 2,339   | (117.3)        |
| Girls  | 803               | 1,940 | (41.2)         | 221                                     | 1,962   | (83.9)         |
| <b>Adults 19–59 years old</b>                            | 1,013             | 2,594 | (63.4)         | 638                                     | 2,748   | (67.5)         |
| Men  | 447               | 3,028 | (107.7)        | 329                                     | 3,180   | (110.1)        |
| Women  | 566               | 2,164 | (67.6)         | 309                                     | 2,320   | (78.4)         |
| <b>Older adults 60+ years old</b>                        | 310               | 2,308 | (77.5)         | 211                                     | 2,482   | (100.6)        |
| Men  | 130               | 2,629 | (133.6)        | 110                                     | 3,003   | (141.6)        |
| Women  | 180               | 2,051 | (89.4)         | 101                                     | 2,063   | (141.3)        |
| <b>Mean usual intake as a percent of adequate intake</b> |                   |       |                |   |         |                |
| <b>All individuals</b>                                   | 2,983             | 85.4  | (1.31)         | 1,301                                   | 89.7 *  | (1.59)         |
| Men and boys   | 1,434             | 87.8  | (2.02)         | 670                                     | 92.7    | (2.29)         |
| Women and girls  | 1,549             | 83.0  | (1.67)         | 631                                     | 86.8    | (2.20)         |
| <b>Children 1–18 years old</b>                           | 1,660             | 89.2  | (1.45)         | 452                                     | 90.7    | (2.88)         |
| Boys   | 857               | 92.0  | (2.25)         | 231                                     | 93.9    | (4.42)         |
| Girls  | 803               | 86.2  | (1.81)         | 221                                     | 87.3    | (3.67)         |
| <b>Adults 19–59 years old</b>                            | 1,013             | 86.1  | (2.05)         | 638                                     | 91.4    | (2.21)         |
| Men  | 447               | 89.1  | (3.17)         | 329                                     | 93.5    | (3.24)         |
| Women  | 566               | 83.2  | (2.60)         | 309                                     | 89.2    | (3.02)         |
| <b>Older adults 60+ years old</b>                        | 310               | 78.2  | (2.59)         | 211                                     | 83.3    | (3.54)         |
| Men  | 130               | 77.3  | (3.93)         | 110                                     | 88.3    | (4.16)         |
| Women  | 180               | 78.9  | (3.44)         | 101                                     | 79.3    | (5.44)         |

See notes at end of table.

**Table G.16a. Potassium (Milligrams): Percentile Distribution of Mean Usual Intakes for Matched SNAP Participants and Income-Eligible Nonparticipants by Age Group and Gender**

| Subgroup                                       | 5th   | 10th  | 15th  | 25th  | 50th  | 75th  | 85th  | 90th  | 95th  |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Men and boys</b>                            |       |       |       |       |       |       |       |       |       |
| <b>SNAP participants</b>                       | 1,658 | 1,863 | 2,004 | 2,232 | 2,702 | 3,236 | 3,554 | 3,781 | 4,128 |
| Children 1–18 years old                        | 1,618 | 1,752 | 1,846 | 1,988 | 2,266 | 2,568 | 2,743 | 2,868 | 3,053 |
| Adults 19–59 years old                         | 1,748 | 1,978 | 2,136 | 2,394 | 2,934 | 3,561 | 3,938 | 4,207 | 4,627 |
| Older adults 60+ years old                     | 1,411 | 1,641 | 1,798 | 2,048 | 2,568 | 3,142 | 3,477 | 3,711 | 4,053 |
| <b>Matched income-eligible nonparticipants</b> | 1,676 | 1,905 | 2,064 | 2,327 | 2,864 | 3,456 | 3,814 | 4,071 | 4,464 |
| Children 1–18 years old                        | 1,498 | 1,652 | 1,758 | 1,937 | 2,293 | 2,691 | 2,931 | 3,098 | 3,348 |
| Adults 19–59 years old                         | 1,817 | 2,067 | 2,239 | 2,520 | 3,101 | 3,742 | 4,131 | 4,411 | 4,832 |
| Older adults 60+ years old                     | 1,465 | 1,735 | 1,929 | 2,261 | 2,921 | 3,638 | 4,070 | 4,382 | 4,894 |
| <b>Women and girls</b>                         |       |       |       |       |       |       |       |       |       |
| <b>SNAP participants</b>                       | 1,187 | 1,355 | 1,469 | 1,653 | 2,034 | 2,462 | 2,717 | 2,897 | 3,180 |
| Children 1–18 years old                        | 1,259 | 1,388 | 1,477 | 1,620 | 1,907 | 2,223 | 2,411 | 2,540 | 2,745 |
| Adults 19–59 years old                         | 1,193 | 1,373 | 1,496 | 1,691 | 2,100 | 2,565 | 2,843 | 3,042 | 3,357 |
| Older adults 60+ years old                     | 1,087 | 1,267 | 1,385 | 1,589 | 1,997 | 2,453 | 2,722 | 2,913 | 3,197 |
| <b>Matched income-eligible nonparticipants</b> | 1,357 | 1,512 | 1,612 | 1,782 | 2,131 | 2,525 | 2,762 | 2,933 | 3,193 |
| Children 1–18 years old                        | 1,438 | 1,537 | 1,602 | 1,711 | 1,937 | 2,184 | 2,326 | 2,426 | 2,579 |
| Adults 19–59 years old                         | 1,395 | 1,571 | 1,685 | 1,877 | 2,267 | 2,701 | 2,958 | 3,149 | 3,435 |
| Older adults 60+ years old                     | 1,158 | 1,320 | 1,421 | 1,602 | 1,984 | 2,434 | 2,729 | 2,926 | 3,234 |

Notes: Estimates are based on two dietary recalls per person. Adequate intake is the recommended average daily intake level. The data reflect nutrient intake from foods and beverages but do not include the contribution of vitamin and mineral supplements. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population, such that different age distributions of SNAP participants and nonparticipants are accounted for. Significant differences in estimates are noted by \* $p < .05$ , \*\* $p < .01$ , or \*\*\* $p < .001$  and based on a  $t$ -test for difference in means between SNAP participants and matched income-eligible nonparticipants. Characteristics retained in the final propensity score estimation model included wave of NHANES; gender; race/ethnicity; age; US citizenship; education (highest grade completed); total number of people in household; ratio of income to poverty; annual household income; annual family income; monthly family income; total savings/cash assets for the family; presence of income from Supplemental Security Income; presence of income from State/county cash assistance; and money spent at supermarket/grocery store, on nonfood items, at other stores, on eating out, and on carryout/delivered foods. The match was completed with replacement using the SAS macro %PSMatching. SNAP participants consist of individuals in households that at the time of data collection reported receiving SNAP benefits.

– Denotes not applicable

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES respondents 1+ years old with complete day 1 and day 2 dietary recall data. Sample excludes pregnant and breastfeeding women 20–44 years old; pregnant and breastfeeding women outside of these age ranges could not be identified in the data.

**Table G.17. Sodium (Milligrams): Mean Usual Intakes for Matched SNAP Participants And Income-Eligible Nonparticipants by Age Group and Gender**

| Subgroup   | SNAP Participants |       |                | Matched Income-Eligible Nonparticipants |         |                |
|--|-------------------|-------|----------------|---|---------|----------------|
|  | Sample Size       | Mean  | Standard Error | Sample Size                             | Mean    | Standard Error |
| <b>Mean usual intake</b>   |                   |       |                |   |         |                |
| <b>All individuals</b>   | 2,983             | 3,359 | (46.8)         | 1,301                                   | 3,425   | (67.3)         |
| Men and boys   | 1,434             | 3,838 | (76.0)         | 670                                     | 3,988   | (111.8)        |
| Women and girls  | 1,549             | 2,896 | (55.5)         | 631                                     | 2,881   | (76.5)         |
| <b>Children 1–18 years old</b>   | 1,660             | 2,968 | (49.0)         | 452                                     | 2,845   | (120.4)        |
| Boys   | 857               | 3,225 | (80.0)         | 231                                     | 3,247   | (193.0)        |
| Girls  | 803               | 2,698 | (55.1)         | 221                                     | 2,424   | (140.9)        |
| <b>Adults 19–59 years old</b>  | 1,013             | 3,693 | (73.9)         | 638                                     | 3,755   | (97.8)         |
| Men  | 447               | 4,262 | (117.5)        | 329                                     | 4,386   | (168.3)        |
| Women  | 566               | 3,129 | (90.0)         | 309                                     | 3,129   | (100.4)        |
| <b>Older adults 60+ years old</b>  | 310               | 2,859 | (90.6)         | 211                                     | 3,185 * | (128.3)        |
| Men  | 130               | 3,324 | (166.5)        | 110                                     | 3,754   | (155.7)        |
| Women  | 180               | 2,486 | (93.7)         | 101                                     | 2,728   | (194.8)        |
| <b>Percent of individuals with usual intake above the chronic disease risk reduction level</b> |                   |       |                |   |         |                |
| <b>All individuals</b>   | 2,983             | 87.1  | (1.24)         | 1,301                                   | 87.6    | (1.95)         |
| Men and boys   | 1,434             | 96.0  | (1.10)         | 670                                     | 94.0    | (1.35)         |
| Women and girls  | 1,549             | 78.6  | (2.19)         | 631                                     | 81.4    | (3.62)         |
| <b>Children 1–18 years old</b>   | 1,660             | 94.2  | (1.07)         | 452                                     | 89.0    | (3.69)         |
| Boys   | 857               | 99.3  | (0.69)         | 231                                     | 94.4 ** | (1.40)         |
| Girls  | 803               | 88.8  | (2.07)         | 221                                     | 83.4    | (7.42)         |
| <b>Adults 19–59 years old</b>  | 1,013             | 90.5  | (1.84)         | 638                                     | 88.9    | (2.08)         |
| Men  | 447               | 98.0  | (1.38)         | 329                                     | 95.3    | (1.98)         |
| Women  | 566               | 83.1  | (3.41)         | 309                                     | 82.6    | (3.66)         |
| <b>Older adults 60+ years old</b>  | 310               | 67.7  | (3.24)         | 211                                     | 81.7    | (6.76)         |
| Men  | 130               | 84.4  | (4.34)         | 110                                     | 89.1    | (3.67)         |
| Women  | 180               | 54.3  | (4.68)         | 101                                     | 75.6    | (11.83)        |

See notes at end of table.

**Table G.17a. Sodium (Milligrams): Percentile Distribution of Mean Usual Intakes for Matched SNAP Participants and Income-Eligible Nonparticipants by Age Group and Gender**

| Subgroup                                       | 5th   | 10th  | 15th  | 25th  | 50th  | 75th  | 85th  | 90th  | 95th  |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Men and boys</b>                            |       |       |       |       |       |       |       |       |       |
| <b>SNAP participants</b>                       | 2,445 | 2,702 | 2,879 | 3,162 | 3,747 | 4,416 | 4,815 | 5,100 | 5,535 |
| Children 1–18 years old                        | 2,375 | 2,542 | 2,661 | 2,840 | 3,189 | 3,573 | 3,796 | 3,957 | 4,194 |
| Adults 19–59 years old                         | 2,660 | 2,954 | 3,153 | 3,478 | 4,151 | 4,925 | 5,390 | 5,724 | 6,238 |
| Older adults 60+ years old                     | 1,821 | 2,091 | 2,278 | 2,579 | 3,223 | 3,958 | 4,397 | 4,708 | 5,171 |
| <b>Matched income-eligible nonparticipants</b> | 2,449 | 2,724 | 2,914 | 3,232 | 3,886 | 4,622 | 5,073 | 5,399 | 5,901 |
| Children 1–18 years old                        | 2,290 | 2,448 | 2,560 | 2,755 | 3,161 | 3,647 | 3,951 | 4,170 | 4,506 |
| Adults 19–59 years old                         | 2,652 | 2,969 | 3,185 | 3,539 | 4,274 | 5,098 | 5,601 | 5,966 | 6,517 |
| Older adults 60+ years old                     | 2,000 | 2,309 | 2,530 | 2,908 | 3,659 | 4,478 | 4,970 | 5,327 | 5,915 |
| <b>Women and girls</b>                         |       |       |       |       |       |       |       |       |       |
| <b>SNAP participants</b>                       | 1,725 | 1,945 | 2,094 | 2,335 | 2,828 | 3,381 | 3,710 | 3,941 | 4,306 |
| Children 1–18 years old                        | 1,714 | 1,895 | 2,022 | 2,226 | 2,642 | 3,107 | 3,386 | 3,579 | 3,890 |
| Adults 19–59 years old                         | 1,852 | 2,094 | 2,259 | 2,518 | 3,055 | 3,656 | 4,011 | 4,263 | 4,663 |
| Older adults 60+ years old                     | 1,388 | 1,592 | 1,726 | 1,956 | 2,420 | 2,944 | 3,255 | 3,476 | 3,805 |
| <b>Matched income-eligible nonparticipants</b> | 1,850 | 2,034 | 2,154 | 2,363 | 2,799 | 3,304 | 3,616 | 3,846 | 4,201 |
| Children 1–18 years old                        | 1,453 | 1,628 | 1,746 | 1,950 | 2,374 | 2,838 | 3,107 | 3,297 | 3,592 |
| Adults 19–59 years old                         | 2,020 | 2,217 | 2,346 | 2,568 | 3,035 | 3,580 | 3,914 | 4,171 | 4,568 |
| Older adults 60+ years old                     | 1,840 | 2,000 | 2,097 | 2,274 | 2,641 | 3,085 | 3,385 | 3,586 | 3,896 |

Notes: Estimates are based on two dietary recalls per person. The chronic disease risk reduction is the intake above which intake reduction is expected to reduce chronic disease risk within an apparently healthy population. The data reflect nutrient intake from foods and beverages but do not include the contribution of vitamin and mineral supplements or table salt. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population, such that different age distributions of SNAP participants and nonparticipants are accounted for. Significant differences in estimates are noted by \* $p < .05$ , \*\* $p < .01$ , or \*\*\* $p < .001$  and based on a  $t$ -test for difference in means between SNAP participants and matched income-eligible nonparticipants. Characteristics retained in the final propensity score estimation model included wave of NHANES; gender; race/ethnicity; age; US citizenship; education (highest grade completed); total number of people in household; ratio of income to poverty; annual household income; annual family income; monthly family income; total savings/cash assets for the family; presence of income from Supplemental Security Income; presence of income from State/county cash assistance; and money spent at supermarket/grocery store, on nonfood items, at other stores, on eating out, and on carryout/delivered foods. The match was completed with replacement using the SAS macro %PSMatching. SNAP participants consist of individuals in households that at the time of data collection reported receiving SNAP benefits.

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES respondents 1+ years old with complete day 1 and day 2 dietary recall data. Sample excludes pregnant and breastfeeding women 20–44 years old; pregnant and breastfeeding women outside of these age ranges could not be identified in the data.