**S2 Table. Percentage of population with daily intake of micronutrients below recommended intake by frequency of RTEC consumption**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Study** | **Age group** | **Number of****partici-****pantsa** | **Comparisonb** | **Vitamin** **A** | **VitaminC** | **Vitamin****E** | **Thiamin** | **Ribo-****flavin** | **Niacin** | **Vitamin****B 6** | **Folate** | **Vitamin B 12** | **Iron** | **Magnesium** | **Zinc**  | **Calcium** | **Vitamin D** |
| **Percentages receiving less than the estimated average requirement (EAR)**  |
| **US**  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Albertson et al, 2012 [25]  | 55+  | 464women | 0 vs> 8 servings/14 d | **55/****18#c** | 55/36# | 97/96 | 29/5# | 13/0# | 14/2# | **68/****13#** | **54/****4#** | 20/1.0# | 3/0# | 92/68# | **51/****14#** | 96/77# | 99/99 |
| Albertson et al, 2012 [25]  | 55+  | 431men | 0 vs> 8 servings/14 d  | **58/****21#** | 58/40# | 95/88# | 15/1# | 4/0# | 4/0# | **41/****4#** | **26/****1#** | 7/0# | 2/0 | 91/70# | **53/****16#** | **74/****34#** | 96/87# |
| Affenito et al, 2013 [23] | 5 – 18 y | 375 SBPparticipants | No vs yes RTEC  | 27.7/11.1 | 9.9/9.9 | NA | NA | NA | NA | NA | NA | NA | < 3/< 3 | NA | NA | 59.0/42.6 | NA |
| Affenito et al, 2013 [23] | 5 – 18 y | 1,571 SBP non- participants | No vs yes RTEC | 29.9/10.3 | 14.7/12.0 | NA | NA | NA | NA | NA | NA | NA | < 3/< 3 | NA | NA | 67.1/46.8 | NA |
| Albertson et al, 2011 [27] | 6 – 18 y | 8,848 | 0 vs ≥ 1 serving/d | **42/****14** | 24/15 | NA | 7/0 | 4/0 | 4/0 | 10/0 | **12/****0** | 3/0 | 5/0 | 46/35 | **18/****3** | **71/****53** | NA |
| Albertson et al, 2003 [36]  | 4 – 12 y | 603 | ≤3 vs ≥ 8 servings/14 d | **14/****0#** | 8/2 | 55/57 | 1/0 | 1/0 | 2/0 | 3/0 | **59/****9#** | NA | 1/0 | **19/****9** | **10/****1#** | NA | NA |
| Song et al, 2006 [32] |  4 – 8 yMen9 – 13 y14 – 18 yWomen9 – 13 y14 – 18 y | 772539680562634 | No vs yes RTEC | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 63.1/38.4#86.6/70.2#66.9/53.2#86.3/86.4#86.7/69.1# | NA |
| Song et al, 2006 [32] |  Men19 – 30 y31 – 50 y51 – 70 y≤ 71yWomen19 – 30 y31 – 50 y51 – 70 y≤ 71y | 455649637355423675654368 | No vs yes RTEC | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 60.8/27.7#65.1/37.9#84.7/65.9#82.8/73.377.8/49.0#79.6/54.2#91.6/77.4#92.2/84.5 | NA |
| Albertson et al, 2013 [44] | 4 – 12 y | 1,755Not fully food-secure  | No vs yes RTEC | **33/****8** | 10/5 | NA | 4/0 | 4/0 | 3/0 | 6/0 | 9/0 | 2/0 | 8/0 | 26/19 | **15/****3** | **63/****40** | **98/****87** |
| Albertson et al, 2013 [44] | 4 – 12 y | 2,982Food secure | No vs yes RTEC | **27/****4** | 15/7 | NA | 2/0 | 2/0 | 1/0 | 5/0 | 6/0 | 1/0 | 6/0 | **26/****15** | **13/****1** | **60/****41** | **98/****87** |
| **Canada** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Barr et al, 2013 [24] | ≥19 ymen | 8,973 | No vs yes RTEC Food only | 42/38**#** | **27/****22** | NA | 2/1 | 2/1 | 0/0 | 6/4 | 5/7 | 4/2 | 0/0 | **54/****33#** | 17/13 | **53/****27#** | **92/****82#** |
| Barr et al, 2013 [24] | ≥19 ywomen | 10,940 | No vs yes RTECFood only | 39/33**#** | 15/10**#** | NA | 8/1 | 3/1 | 0/0 | **19/****11** | 20/20 | 9/10 | **20/****8** | **43/****26#** | 13/9 | **72/****50#** | 98/93 |
| Barr et al, 2014 [22] | 4 – 18 ymen | 5,526 | No vs yes RTECFood only  | 19/18 | 4/5 | NA | 0/0 | 0/0 | 0/0 | 1/0 | 1/2 | 1/0 | 1/0**#** | **20/****13** | 3/3 | **43/****26#** | **81/****76** |
| Barr et al, 2014 [22] | 4 – 18 ywomen | 5,281 | No vs yes RTECFood only | **24/****17** | 3/1 | NA | 1/0 | 1/0 | 0/0 | 5/1 | 6/3 | 3/3 | 5/1**#** | **32/****21#** | 11/9 | **67/****43#** | 95/89 |
| Albertson et al, 2013 [46] | 12 y and older | 2,926 | 0 - 1 vs> 4 serving/wk | **58/****39#** | **55/****34#** | 97/94# | 13/1# | 9/3# | 9/4# | **39/****16#** | 26/16# | 15/7# | 13/0# | **78/****52#** | **42/****23#** | 71/54# | 96/88# |
| Ireland  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Galvin et al, 2002 [37] | 18 - 64 y | 397men | 0 vs on average 31 g/d | 24/13 | 9/2 | NA | NA | 21/2 | NA | NA | 5/0 | NA | 5/0 | NA | 14/5 | 15/3 | NA |
| Galvin et al, 2002 [37] | 18 - 64 y | 419women | 0 vs on average 27 g/d | 21/16 | 15/4 | NA | NA | 38/0 | NA | NA | 19/1 | NA | 55/12 | NA | 22/5 | 33/10 | NA |
| **Percentages receiving less than two-thirds of the recommended dietary allowance (RDA)** |
| USA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nicklas et al, 1995 [42] | 10 y | 568 | No vs yes RTEC | 18/3 | 34/18 | 46/50 | **31/****5** | 11/2 | **28/****8** | **41/****10** | **19/****1** | 2/3 | **35/****15** | 10/8 | 27/20 | 24/16 | 50/43 |
| Nicklas et al, 1995 [42] | Young adults | 504 | No vs yes RTEC | **48/****16** | 52/34 | 46/45 | **51/****13** | 41/9 | 20/9 | **56/****18** | **53/****16** | 20/9 | 49/28 | 55/34 | 51/28 | **55/****12** | 69/42 |
| Spain |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Van den Boom et al, 2006[33] | 2 – 24 y | 1,346males | 0 vs > 40 g/d | **69/****64#** | **11/****3#** | **43/****38** | 0/0# | 1/1 | 0/0 | 1/0 | **12/****5#** | 0/0 | 0/0 | **6/****2** | NA | 2/1# | 96/97 |
| Van den Boom et al, 2006[33] | 2 – 24 y | 1,506females | 0 vs > 40 g/d | **66/****52#** | **10/****4#** | **71/****65#** | 0/0 | 0/0 | 0/0 | 5/2 | **71/****51#** | 0/0 | **29/****12#** | 6/3# | NA | **7/****1#** | 99/98 |
| Cyprus |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Papoutsou et al, 2014 [20] | 4 – 8 y | 250RTEC vs Other BF | No vs yes RTEC | 34/15 | 27/10 | NA | 6/5 | NA | NA | 11/7 | NA | NA | 37/23 | 11/10 | NA | 46/34 | NA |
| **Percentages consuming less than 80 % of RDA** |
| USA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sampson et al, 1995 [47] | 7 – 10 y  | 832low-income AA | No vs yes RTEC | 64/50# | 24/15# | 49/47 | 23/6# | 14/1# | **24/****4#** | **62/****28#** | **30/****2#** | 6/2# | **45/****19#** | 27/21 | NA | 42/36 | 95/85# |
| **Percentages consuming less than 100 % RDA** |
| Albertson & Tobel-mann, 1993 [7] |  7 – 12 y | 487 | < 2 x vs > 7 times/14d | 50/33 | 30/11 | NA | **44/****9** | **35/****6** | **32/****7** | **92/****55** | NA | 3/0 | 49/17 | 57/33 | 84/77 | 71/53 | NA |
| **Probability of not achieving 100 % of EAR**  |
| Australia |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Grieger et al, 2012 [26] | 12 – 13 y | 184 | No vs yes RTEC | 1/3 | NA | NA | 0/0 | 1/0 | 0/0 | NA | **5/****0** | NA | 1/0 | 0/0 | 0/0 | **68/****29#** | NA |
| Grieger et al, 2012 [26] | 14 – 16 y | 440 | No vs yes RTEC | **29/****8#** | NA | NA | 1/0 | 1/0 | 0/0 | NA | **23/****1#** | NA | 2/0 | 0/0 | 15/6 | **55/****18#** | NA |
| **Percentage who did not achieve LRNI** |
| Ireland |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| McNulty et al, 1996 [39] | 12 y | 100 Boys | 0 vs > 40 g/d | NA | NA | NA | NA | 18/0 | 18/0 | NA | 100/85 | 0/0 | 0/0 | NA | 0/0 | 18/0 | NA |
| McNulty et al, 1996 [39] | 15 y | 114 Boys | 0 vs > 40 g/d | NA | NA | NA | NA | 15/0 | 20/0 | NA | 75/57 | 10/0 | 0/0 | NA | 0/1 | 10/0 | NA |
| McNulty et al, 1996 [39] | 12 y | 65 Girls | 0 vs > 40 g/d | NA | NA | NA | NA | 35/0 | 13/3 | NA | 94/76 | 10/0 | 35/11 | NA | 23/0 | 32/3 | NA |
| McNulty et al, 1996 [39]  | 15 y | 76 Girls | 0 vs > 40 g/d | NA | NA | NA | NA | 20/0 | 8/4 | NA | 96/70 | 8/0 | 20/4 | NA | 2/0 | 4/0 | NA |

LRNI: lower reference nutrient intake, NA: not assessed, RDA: recommended dietary allowance

a Number of participants from the results which are given in the table

b Comparison lowest vs highest RTEC- intake

c Bold: highest reduction of inadequacy

#significantly different