Supplementary Table 1: Comparison Among Different Vitamin D Groups

| Variables | $\begin{aligned} & \text { Q1 } \\ & \mathrm{N}=1686(25 \%) \end{aligned}$ | $\begin{aligned} & \text { Q2 } \\ & \mathrm{N}=1226(25 \%) \end{aligned}$ | $\begin{aligned} & \text { Q3 } \\ & \mathrm{N}=1085(25 \%) \end{aligned}$ | $\begin{aligned} & \mathrm{Q} 4 \\ & \mathrm{~N}=916(25 \%) \end{aligned}$ | P value |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Age |  |  |  |  | 0.002 |
| 20-29 | 601 (35\%) | 405 (33.1\%) | 337(31\%) | 265 (29\%) |  |
| 30-39 | 548 (33\%) | 414 (33.7\%) | 333(30\%) | 283 (31/\%) |  |
| 40-50 | 537 (32\%) | 407 (33.2\%) | 415 (38\%) | 368 (40\%) |  |
| Race/ethnicity |  |  |  |  | $<0.001$ |
| Mexican <br> American | 233 (14\%) | 241 (20\%) | 140 (13\%) | 49 (5.3\%) |  |
| Non-Hispanic white | 292 (17\%) | 446 (36\%) | 551 (51\%) | 630 (68.8\%) |  |
| Non-Hispanic <br> Black | 695 (41\%) | 185 (15\%) | 110 (10\%) | 52 (5.7\%) |  |
| Other | 466 (28\%) | 354 (29\%) | 284 (26\%) | 185 (20.2\%) |  |
| Gender |  |  |  |  | <0.001 |
| Male | 821 (49\%) | 688 (56\%) | 550 (51\%) | 405 (44\%) |  |
| Female | 865 (51\%) | 538(44\%) | 535 (49\%) | 511 (56\%) |  |
| Married/live with partner |  |  |  |  | <0.001 |
| Yes | 832 (49\%) | 741 (60\%) | 692 (64\%) | 581 (63\%) |  |
| No | 854 (51\%) | 485 (40\%) | 393 (36\%) | 335 (37\%) |  |
| Education |  |  |  |  | <0.001 |
| Below high school | 311 (18\%) | 241 (19\%) | 191 (17.6\%) | 117 (12.7\%) |  |
| High School or above | 1375 (82\%) | 985 (81\%) | 894 (82.3\%) | 799 (87.2\%) |  |
| Poverty income ratio |  |  |  |  | <0.001 |
| Poor | 626 (37\%) | 433 (35\%) | 330 (30\%) | 267 (29\%) |  |
| Not poor | 1060 (63\%) | 793 (65\%) | 755 (70\%) | 649 (71\%) |  |
| Obesity |  |  |  |  | $<0.001$ |
| Yes | 748 (44\%) | 450 (37\%) | 337 (31\%) | 223 (24\%) |  |
| No | 938 (56\%) | 776 (63\%) | 748 (69\%) | 693 (76\%) |  |
| Smoking |  |  |  |  | 0.2 |
| Yes | 420 (25\%) | 268 (22\%) | 246 (22\%) | 218 (23\%) |  |
| No | 1266 (75\%) | 958 (78\%) | 839 (78\%) | 698 (77\%) |  |
| Alcohol use |  |  |  |  | $<0.001$ |
| Yes | 1210 (72\%) | 922 (75\%) | 871 (80\%) | 749 (82\%) |  |
| No | 475 (28\%) | 303 (25\%) | 214 (20\%) | 165 (18\%) |  |
| Hypertension history |  |  |  |  | 0.005 |
| Yes | 447 (27\%) | 252 (20\%) | 218 (20\%) | 195 (21\%) |  |
| No | 1239 (73\%) | 974 (80\%) | 867 (80\%) | 721 (79\%) |  |


| DM history |  |  |  | $<0.001$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Yes | $174(10 \%)$ | $77(6.0 \%)$ | $71(6.5 \%)$ | $39(4.3 \%)$ |  |
| No | $1509(90 \%)$ | $1149(94 \%)$ | $1014(93.5 \%)$ | $876(95.7 \%)$ |  |
| Sleep disorder |  |  |  |  | 0.008 |
| Yes | $244(14 \%)$ | $174(14 \%)$ | $154(14 \%)$ | $118(13 \%)$ |  |
| No | $1442(86 \%)$ | $1052(86 \%)$ | $931(86 \%)$ | $798(87 \%)$ |  |

