

Supplementary Figure 1. LD structure of chromosome 4: This panel shows the trend P values for association testing with circulating 25-hydroxy vitamin D levels from SNPs in *GC* region (chromosome 4q12-13). LD plot is based on ATBC, CPS-II, CLUE II, and PLCO studies.

Supplementary Figure 2. LD structure of chromosome 11: This panel shows the trend P values for association testing with circulating 25-hydroxy vitamin D levels from SNPs in *NADSYN1* region (chromosome 11q13.4). LD plot is based on ATBC, CPS-II, CLUE II, and PLCO studies.

Supplementary Figure 3. LD structure of chromosome 11: This panel shows the trend P values for association testing with circulating 25-hydroxy vitamin D levels from SNPs in *CYP2R1* region (chromosome 11p15.2). LD plot is based on ATBC, CPS-II, CLUE II, and PLCO studies.





