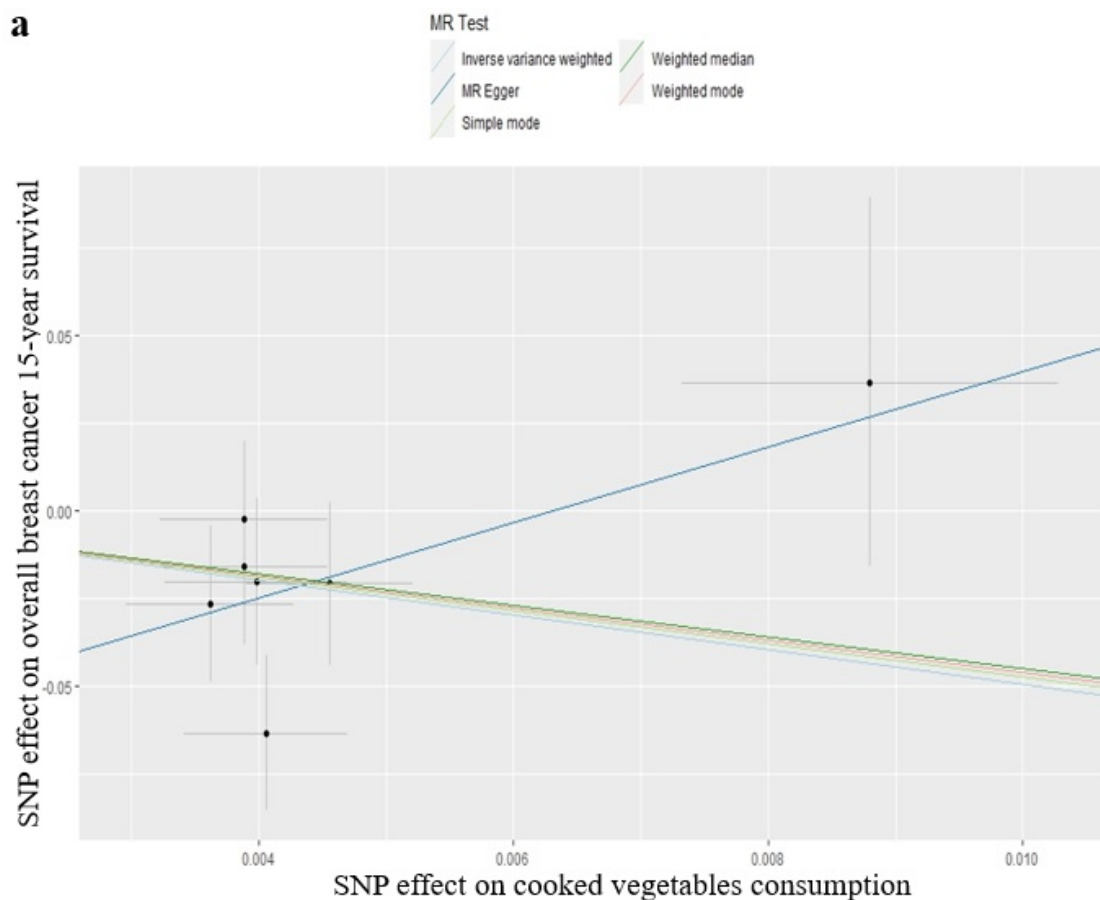


Supplementary Figure S1. Scatter plots from genetically predicted effects assessed cooked vegetables consumption on breast cancer 15-year survival. **a.** Scatter plot of SNP effects on cooked vegetables consumption versus overall breast cancer 15-year survival. **b.** Scatter plot of SNP effects on cooked vegetables consumption versus the 15-year survival of breast cancer subgroup (e), with the slope of each line corresponding to the estimated MR effect per method. **c.** Scatter plot of SNP effects on vegetarian cooked vegetables consumption the 15-year survival of breast cancer subgroup (k), with the slope of each line corresponding to the estimated MR effect per method. With the slope of each line corresponding to the estimated MR effect per method.

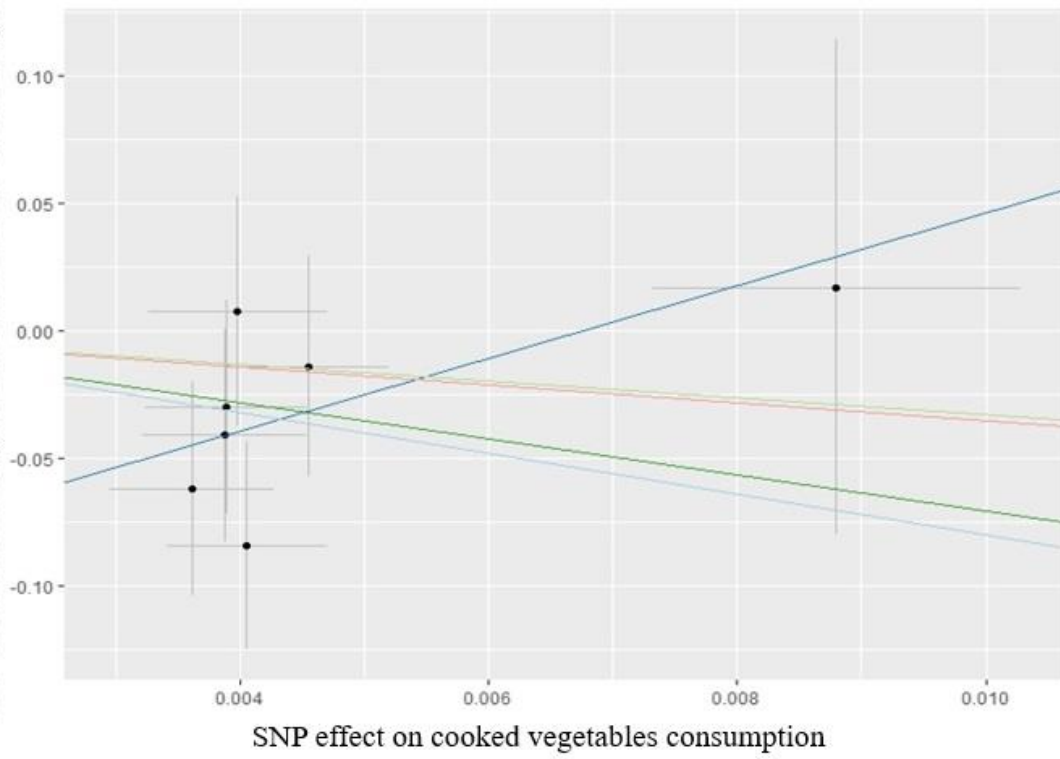


b

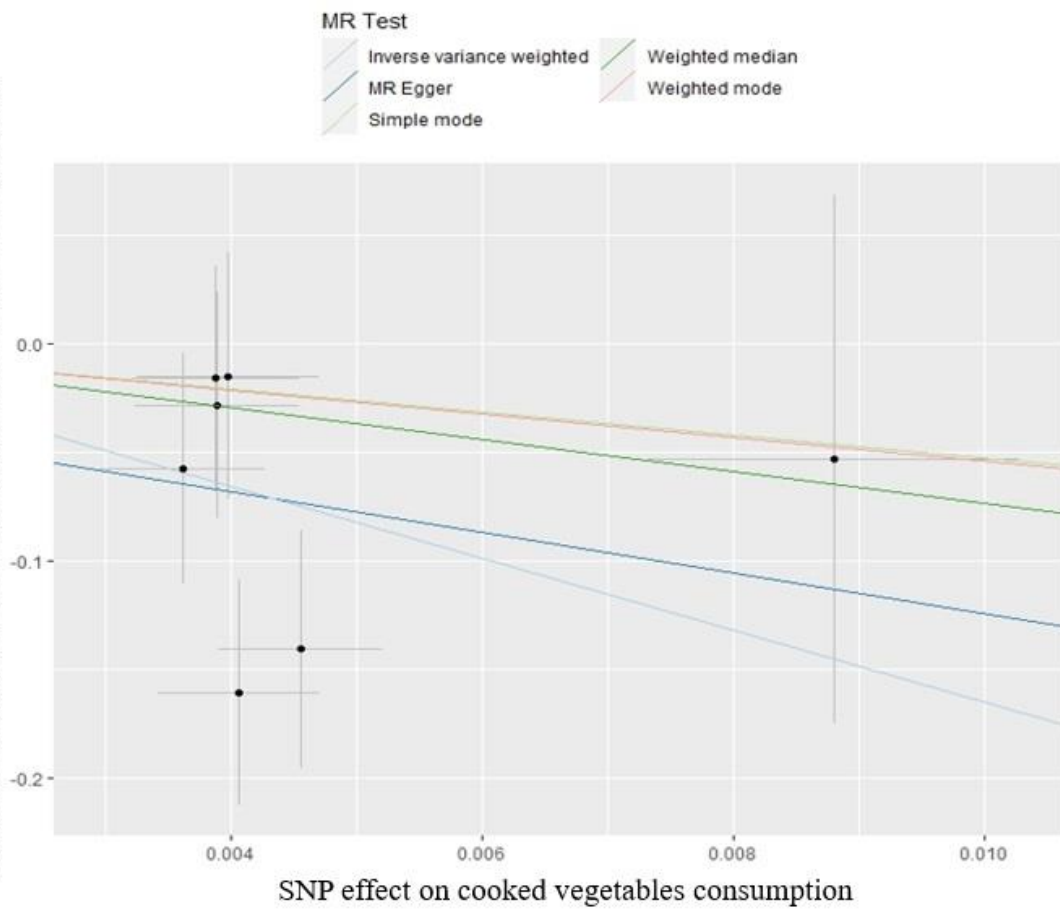
SNP effect on the 15-year survival of breast cancer subgroup (e)

MR Test

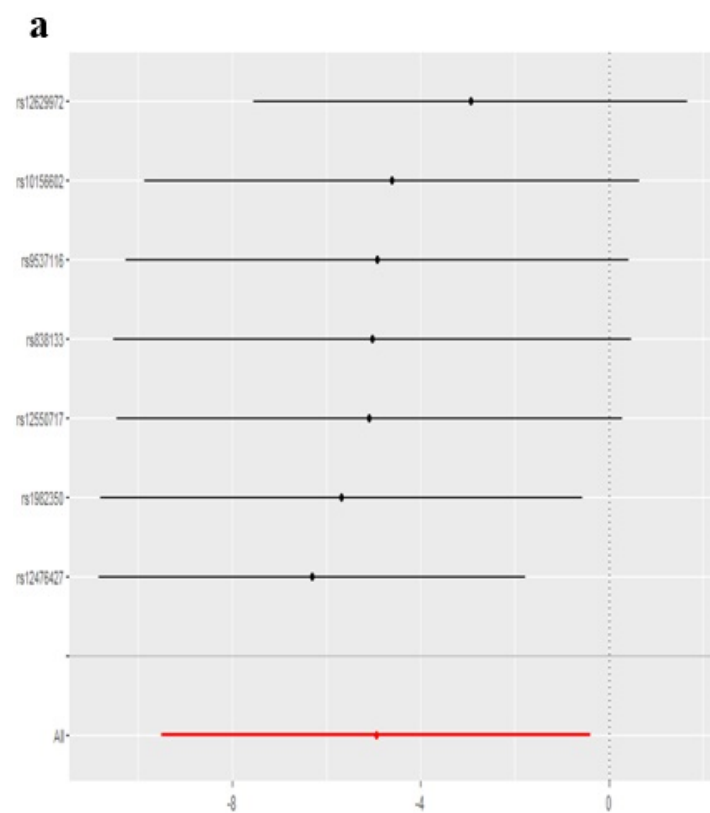
- Inverse variance weighted
- MR Egger
- Simple mode
- Weighted median
- Weighted mode



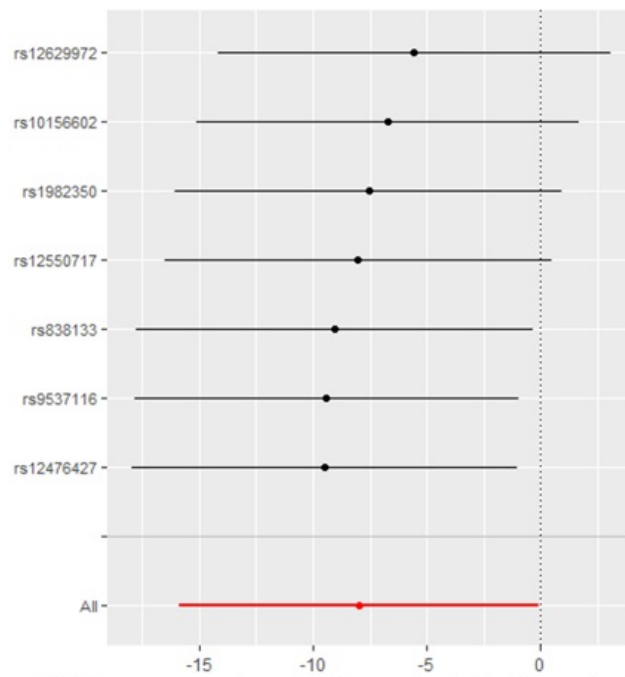
c
SNP effect on the 15-year survival of breast cancer subgroup (k)



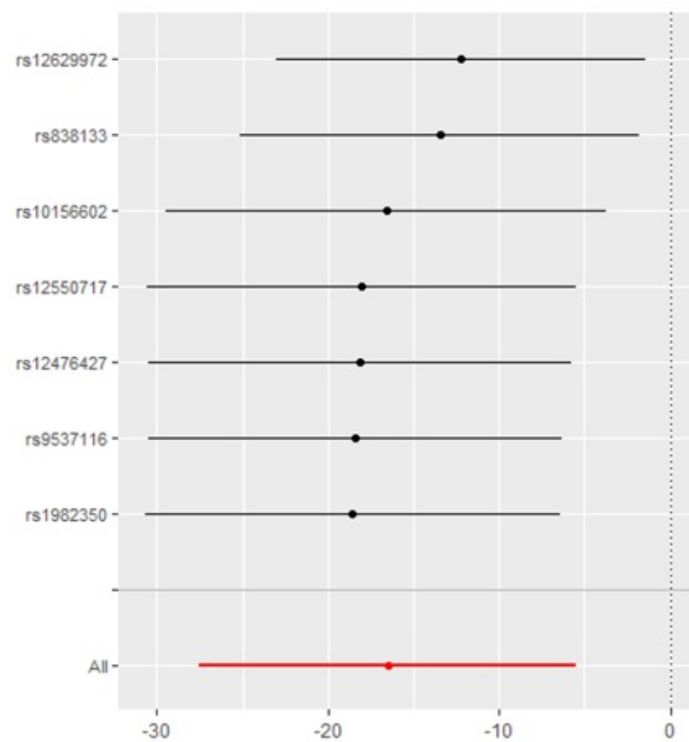
Supplementary Figure S2. Leave-one-out sensitivity analysis of MR estimate assessed the cooked vegetables consumption on breast cancer 15-year survival. a. Leave-one-out analysis of MR estimate assessed the cooked vegetables consumption on overall breast cancer 15-year survival; **b.** Leave-one-out analysis of MR estimate assessed the cooked vegetables consumption on breast cancer subgroup (e) 15-year survival; **c.** Leave-one-out analysis of MR estimate assessed the cooked vegetables consumption on breast cancer subgroup (k) 15-year survival.



MR leave-one-out sensitivity analysis for the cooked vegetables consumption on the overall breast cancer 15-year survival

b

MR leave-one-out sensitivity analysis for the cooked vegetables consumption on the 15-year survival of breast cancer subgroup (e)

c

MR leave-one-out sensitivity analysis for the cooked vegetables consumption on the 15-year survival of breast cancer subgroup (k)

Supplementary Figure S3. Effect of expression level of RARB gene on breast cancer survival.

Survival analysis between high and low expression groups of RARB gene in patients with breast cancer was performed using bioinformatics database Gepia2, and the survival between the high and low expression groups showed no significant difference.

a. Effect of expression level of RARB gene on disease-free survival of Luminal A breast cancer; **b.** Effect of expression level of RARB gene on disease-free survival of Luminal B breast cancer; **c.** Effect of expression level of RARB gene on overall survival of Luminal A breast cancer; **d.** Effect of expression level of RARB gene on overall survival of Luminal B breast cancer.

