

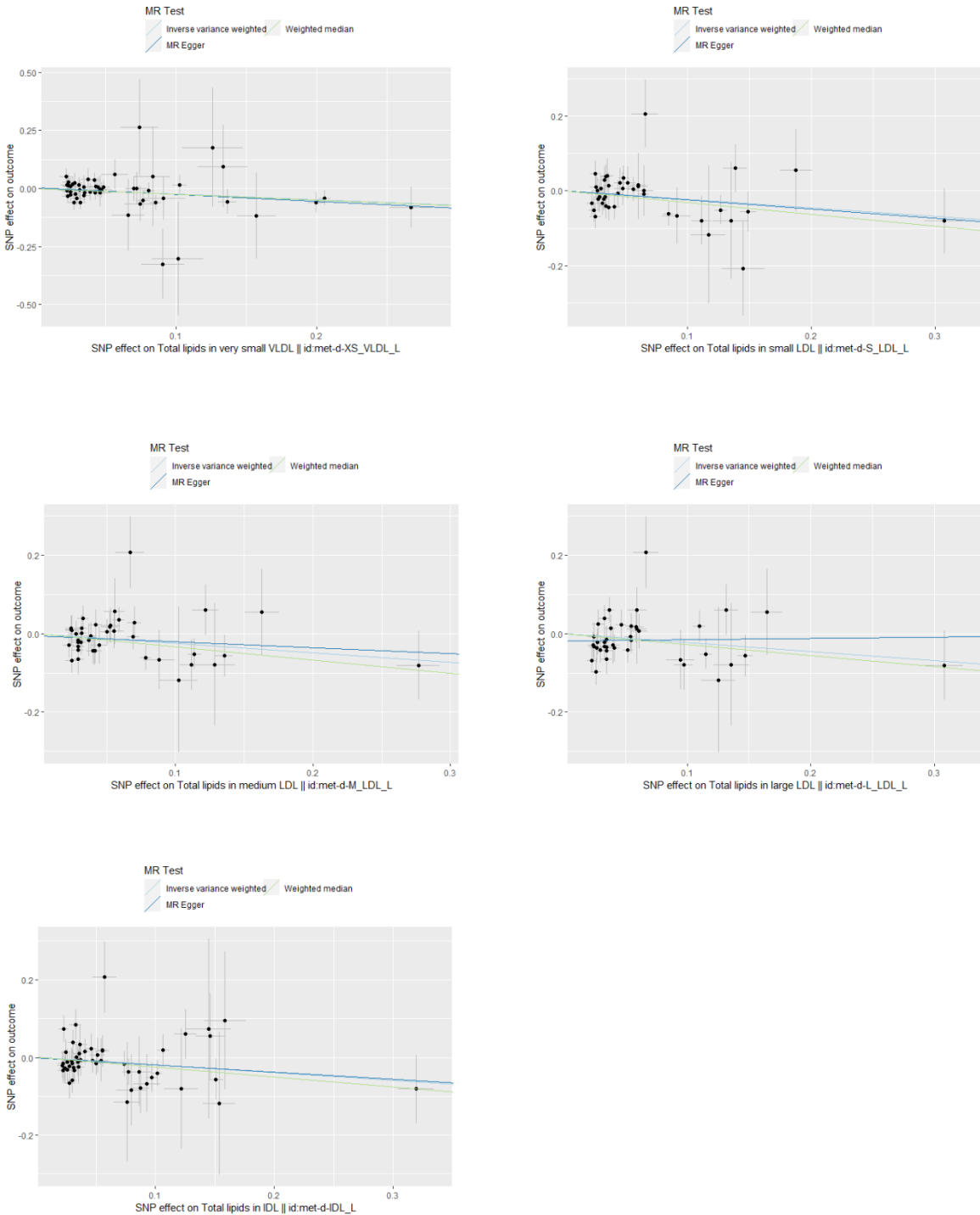
# **Supplementary materials**

**Supplementary Figures S1-S3: Pages 2-24**

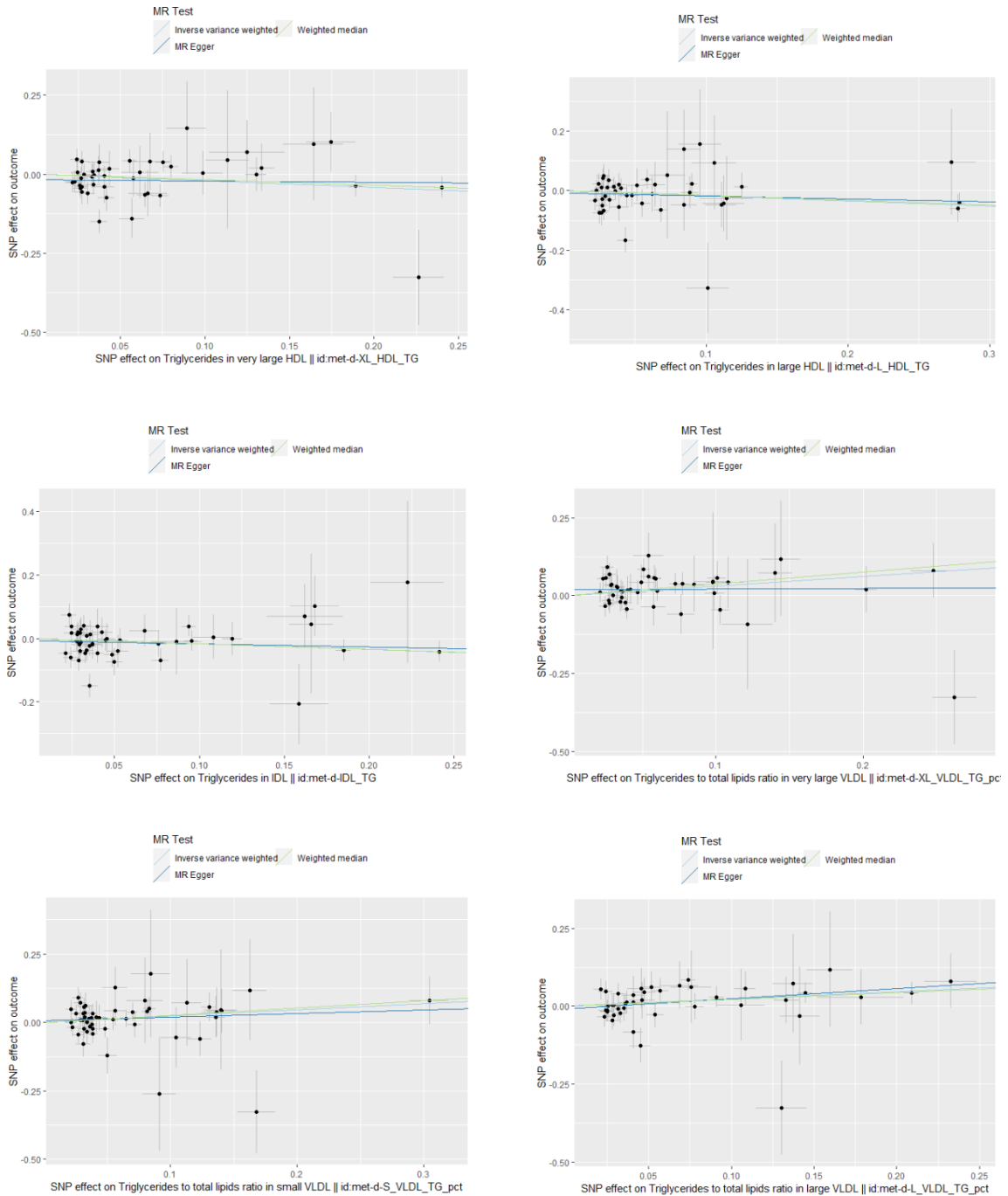
# Supplementary Figures S1-S3

## Supplementary Figure S1. Scatter plot results of IVW, weighted median and MR-Egger. Pages 1-11.

### Total lipids

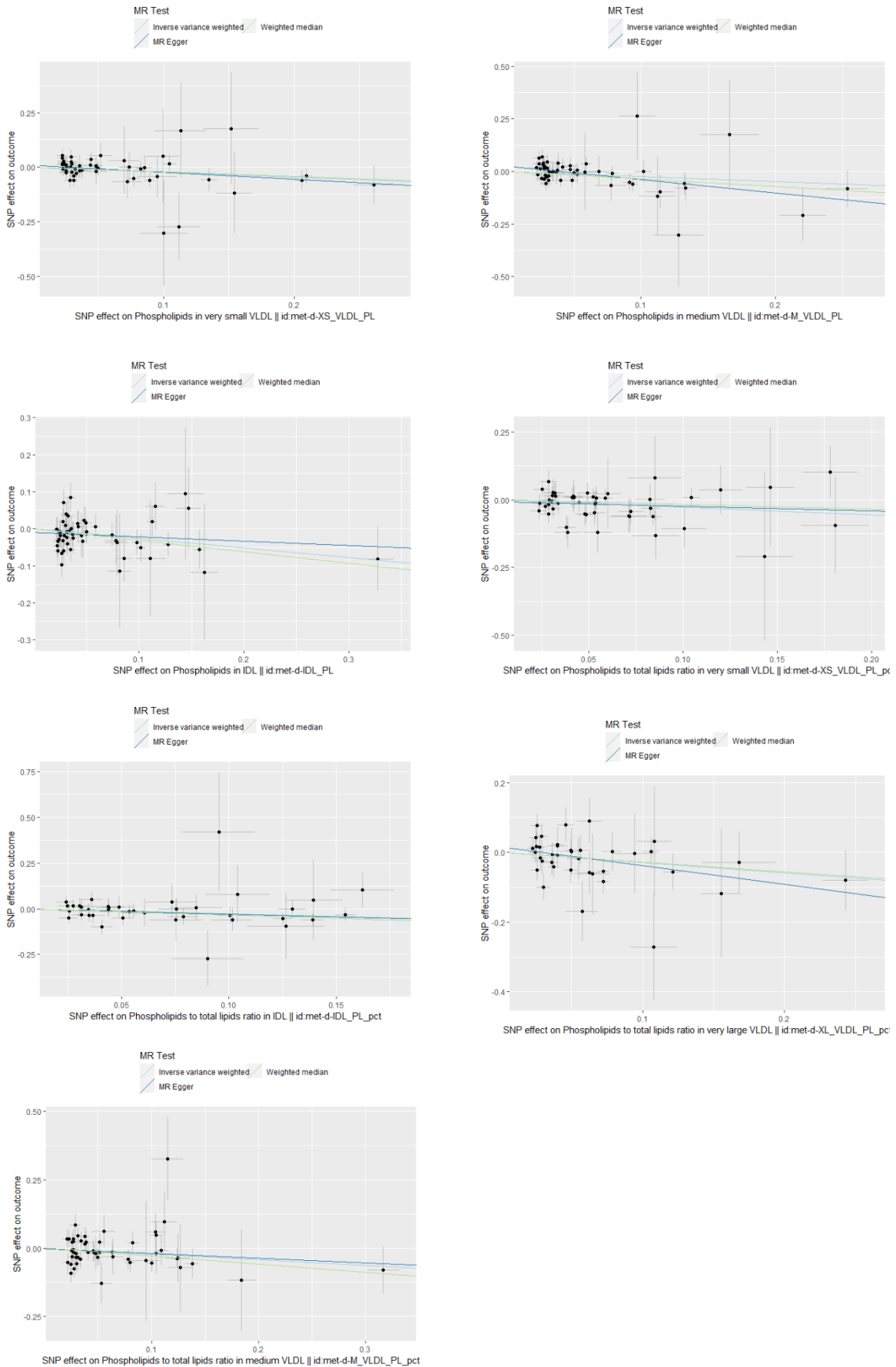


# Triglycerides



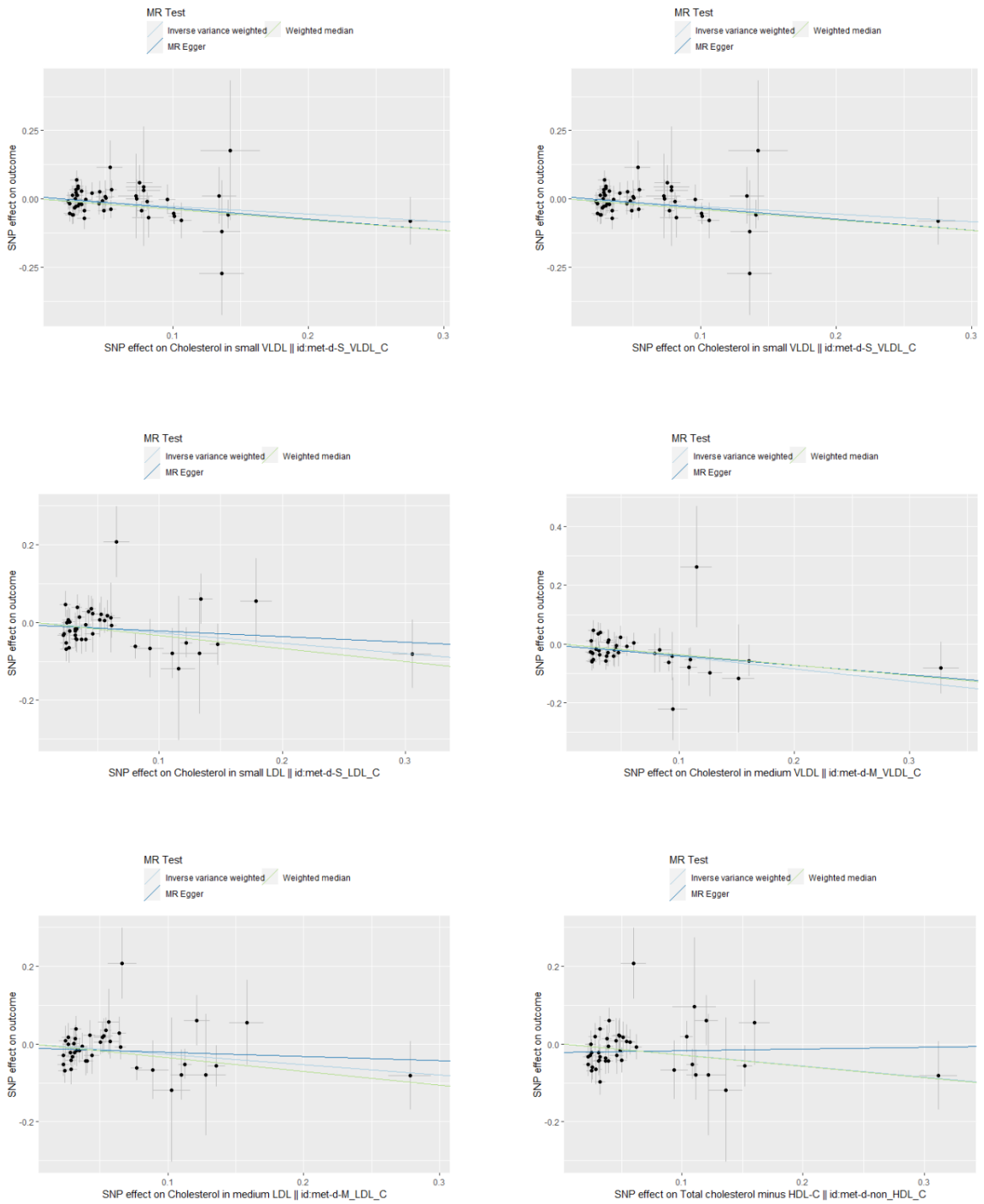
Supplementary Figure S1. Scatter plot results of IVW, weighted median and MR-Egger.

# Phospholipids



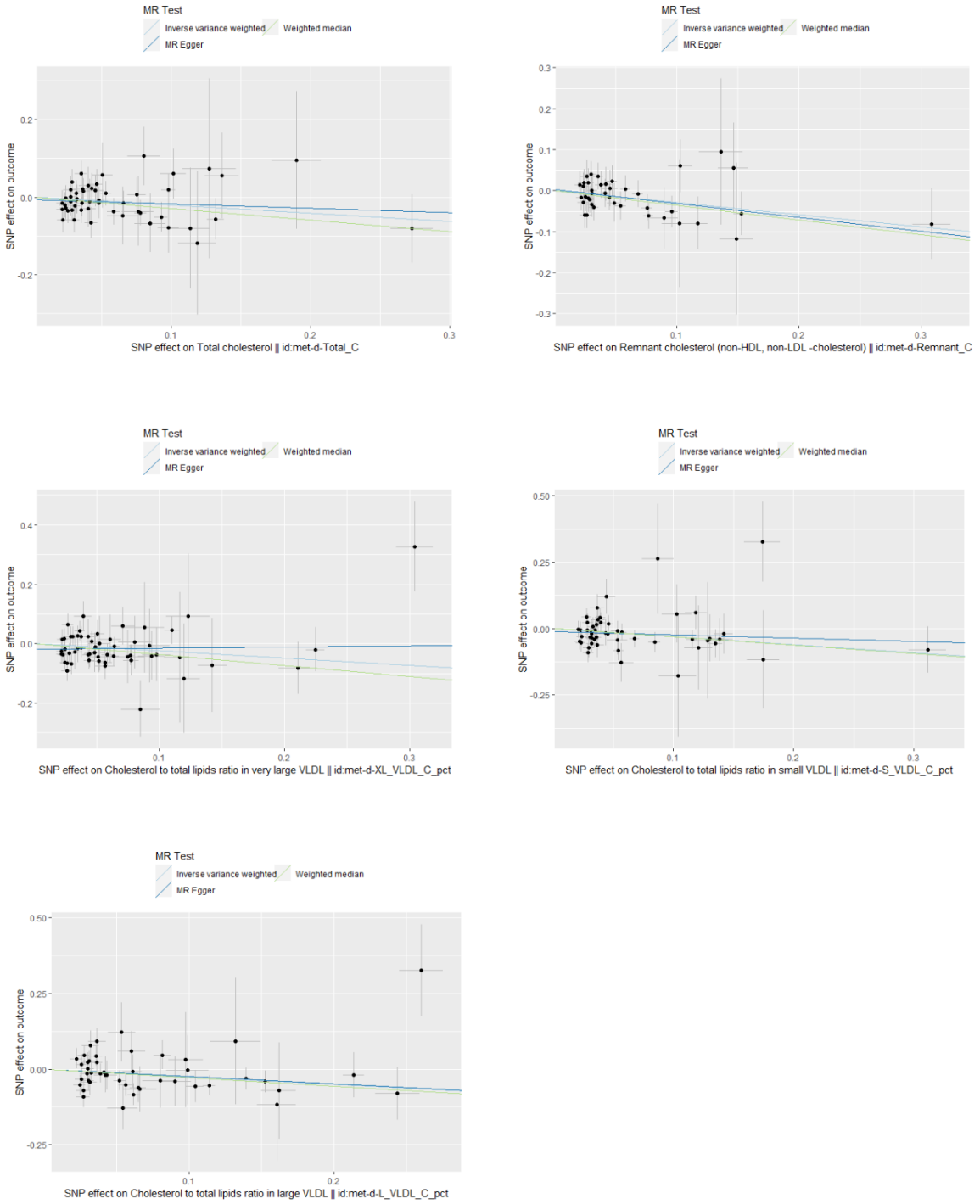
Supplementary Figure S1. Scatter plot results of IVW, weighted median and MR-Egger.

# Cholesterol



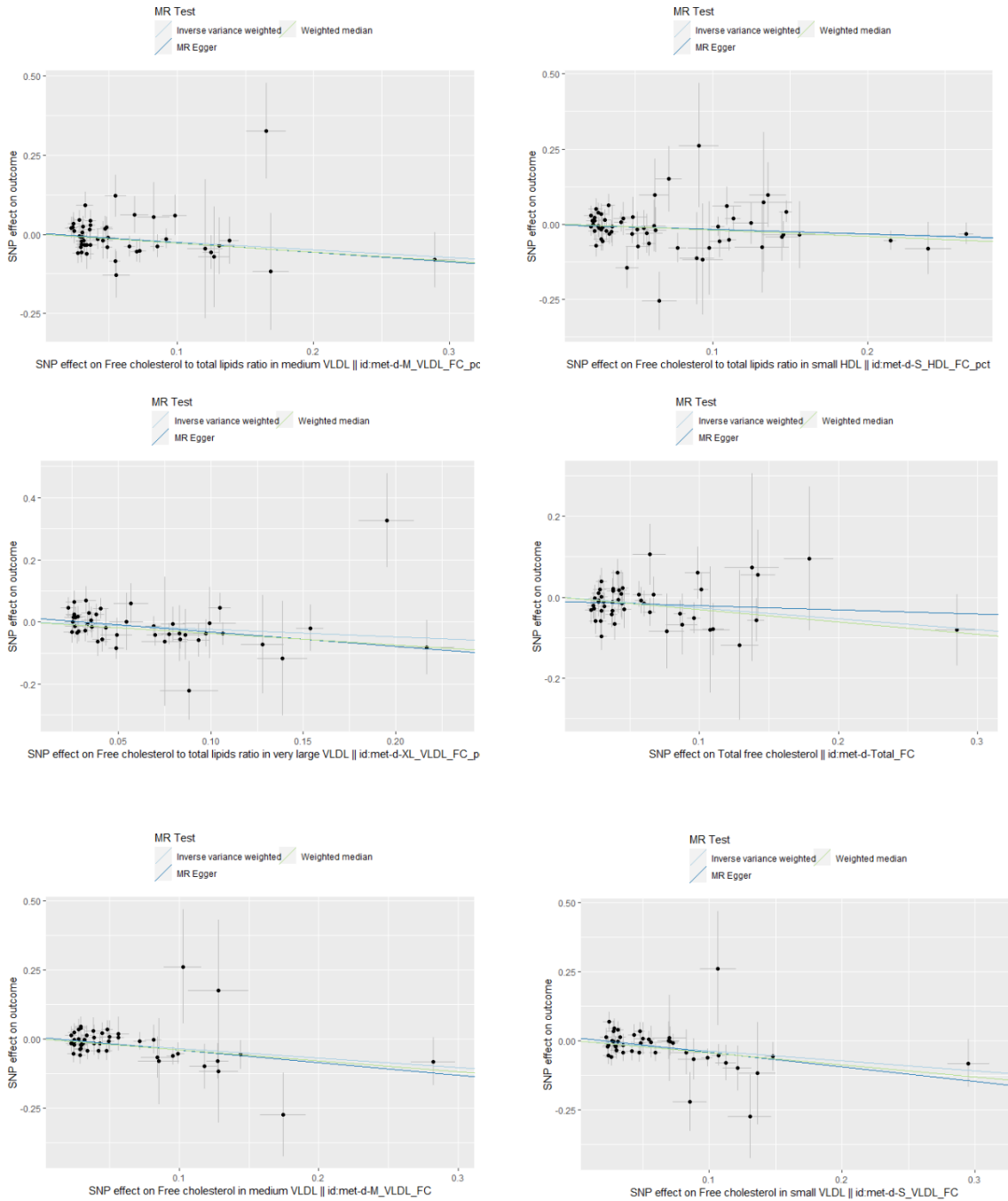
Supplementary Figure S1. Scatter plot results of IVW, weighted median and MR-Egger.

# Cholesterol - continued



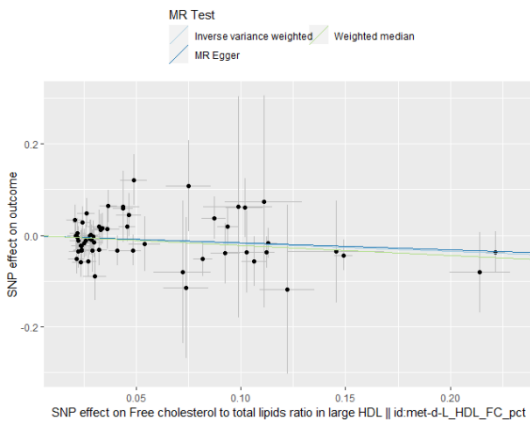
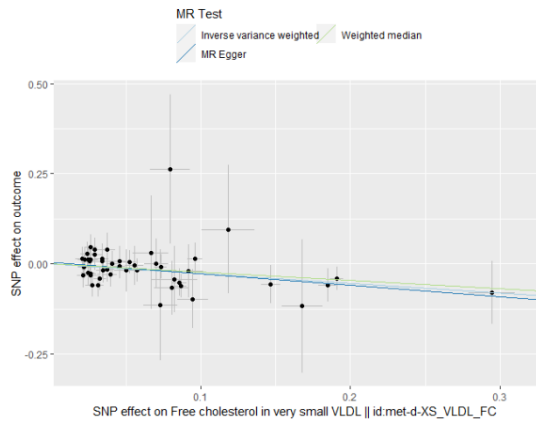
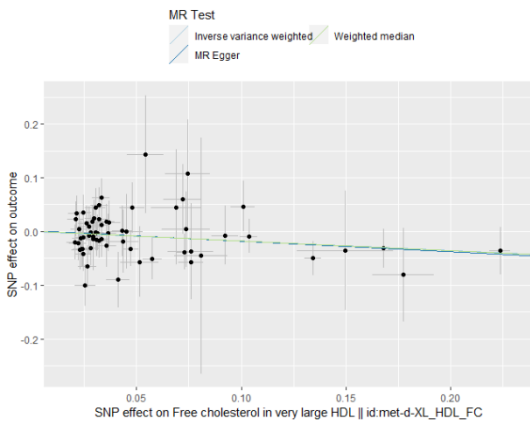
Supplementary Figure S1. Scatter plot results of IVW, weighted median and MR-Egger.

# Free cholesterol



Supplementary Figure S1. Scatter plot results of IVW, weighted median and MR-Egger.

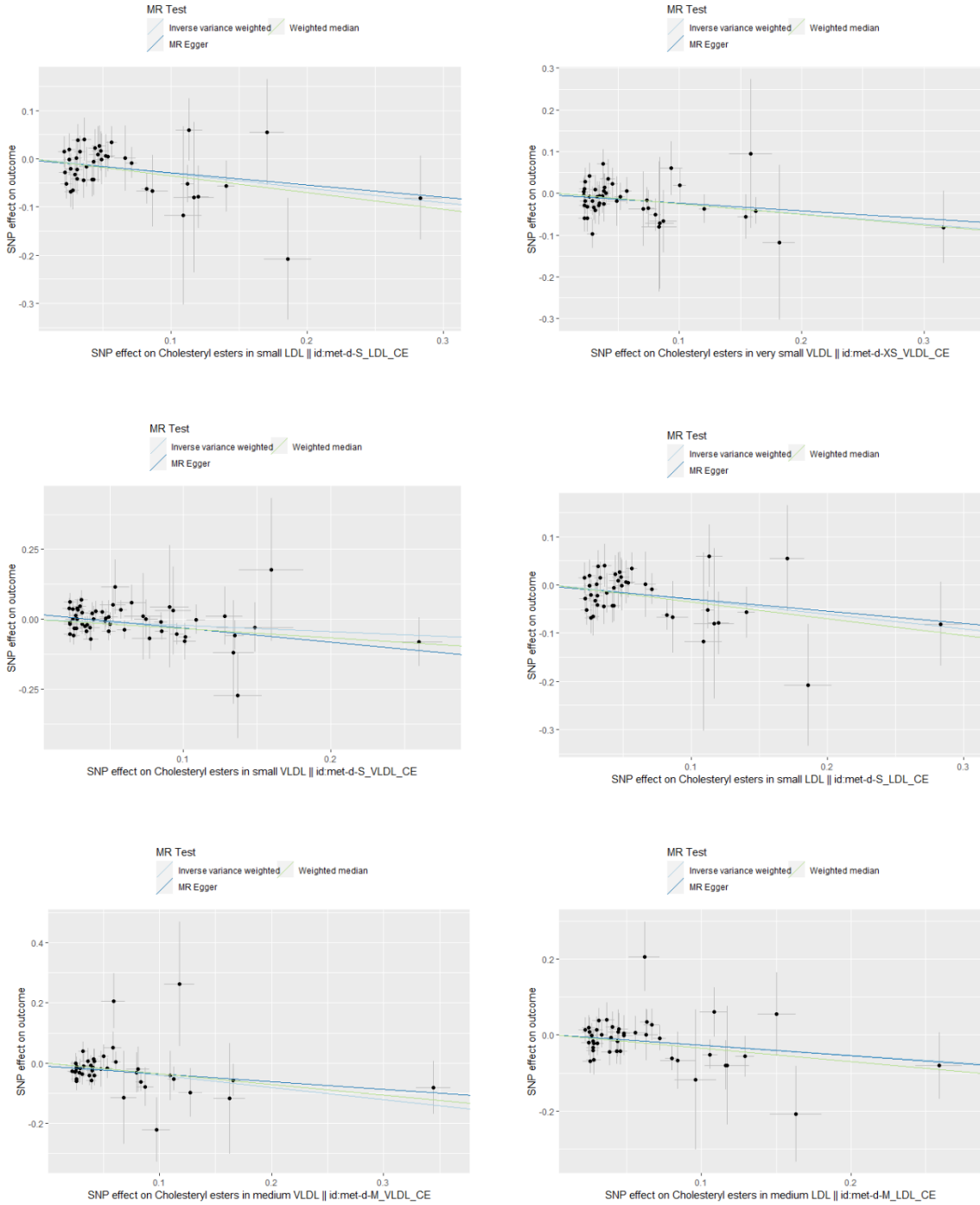
# Free cholesterol - continued



Supplementary Figure S1. Scatter plot results of IVW, weighted median and MR-Egger.

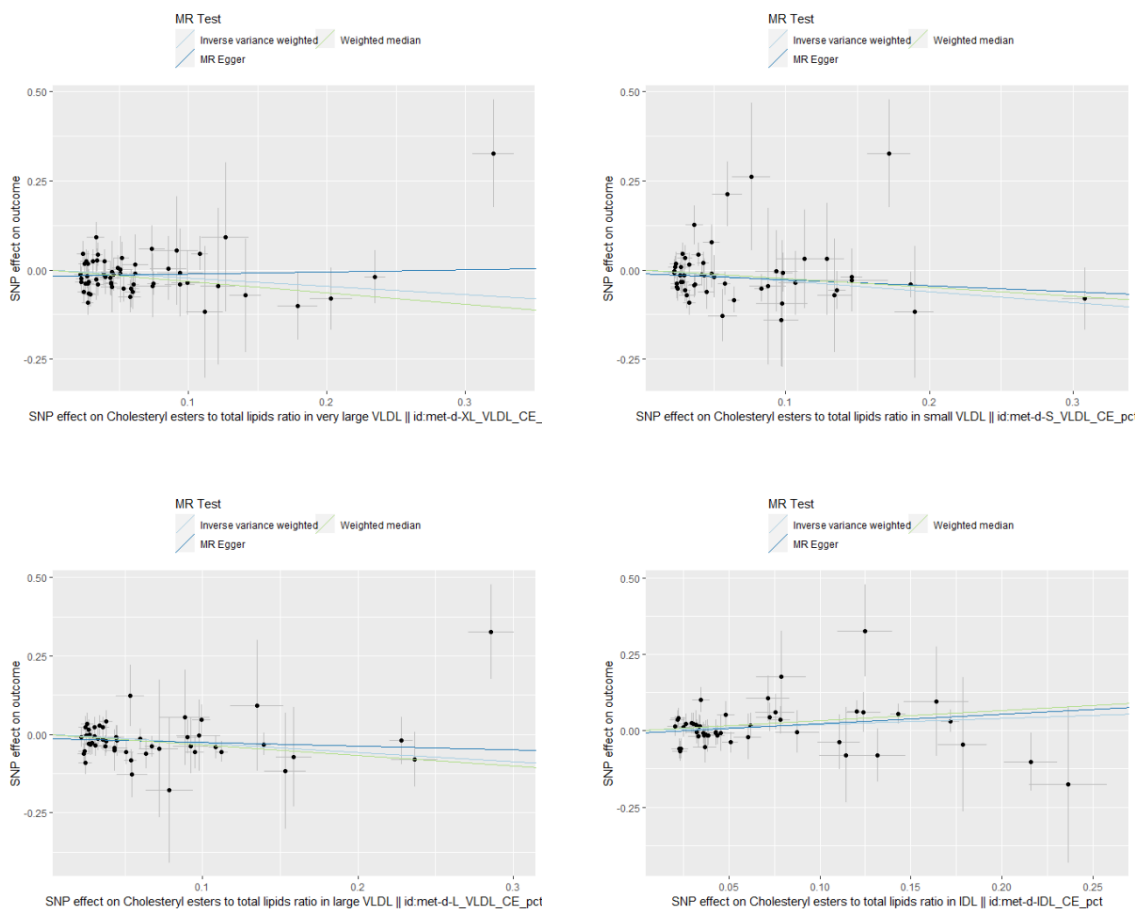


# Cholesteryl esters



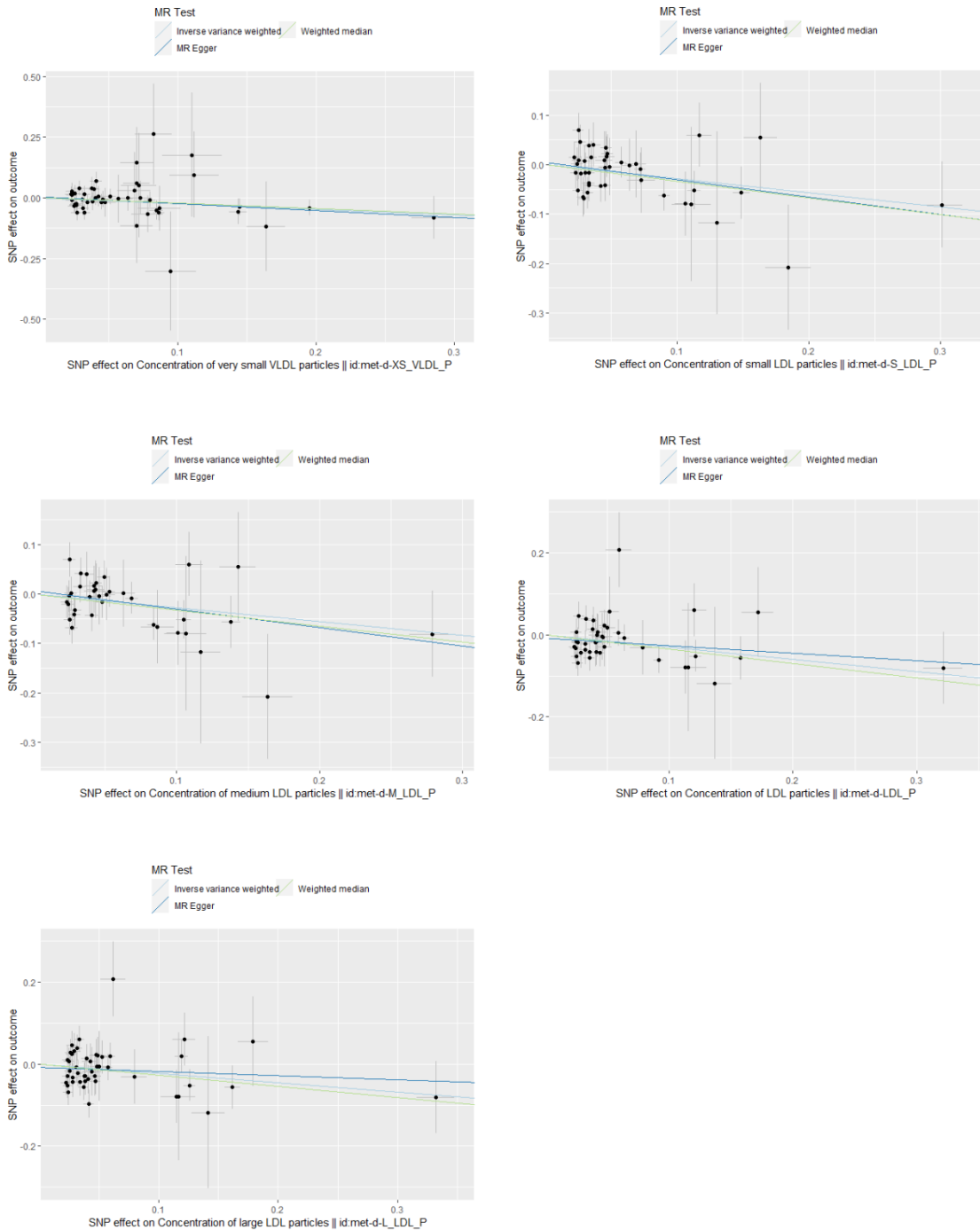
Supplementary Figure S1. Scatter plot results of IVW, weighted median and MR-Egger.

# Cholesteryl esters - continued



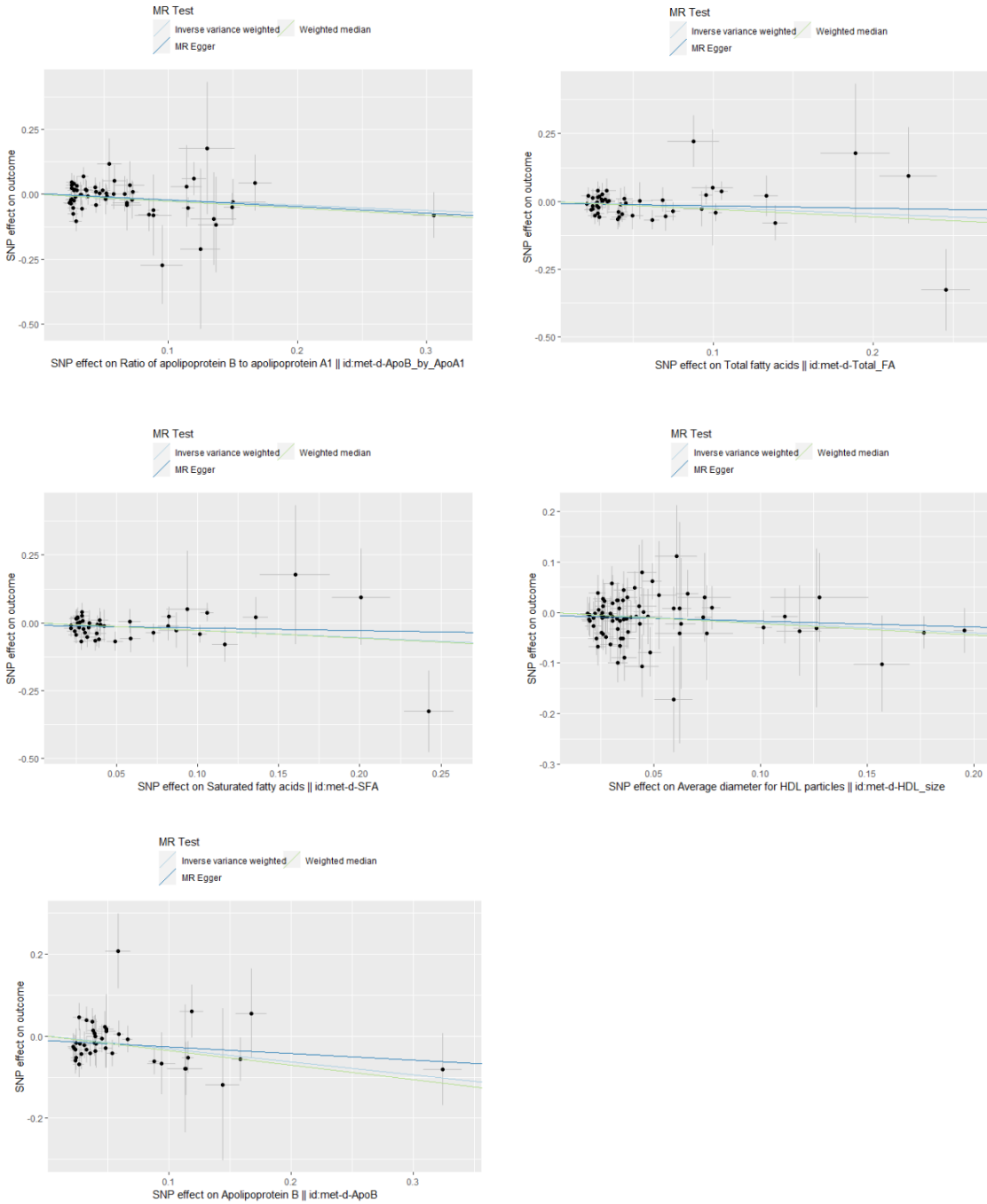
Supplementary Figure S1. Scatter plot results of IVW, weighted median and MR-Egger.

# Lipoprotein



Supplementary Figure S1. Scatter plot results of IVW, weighted median and MR-Egger.

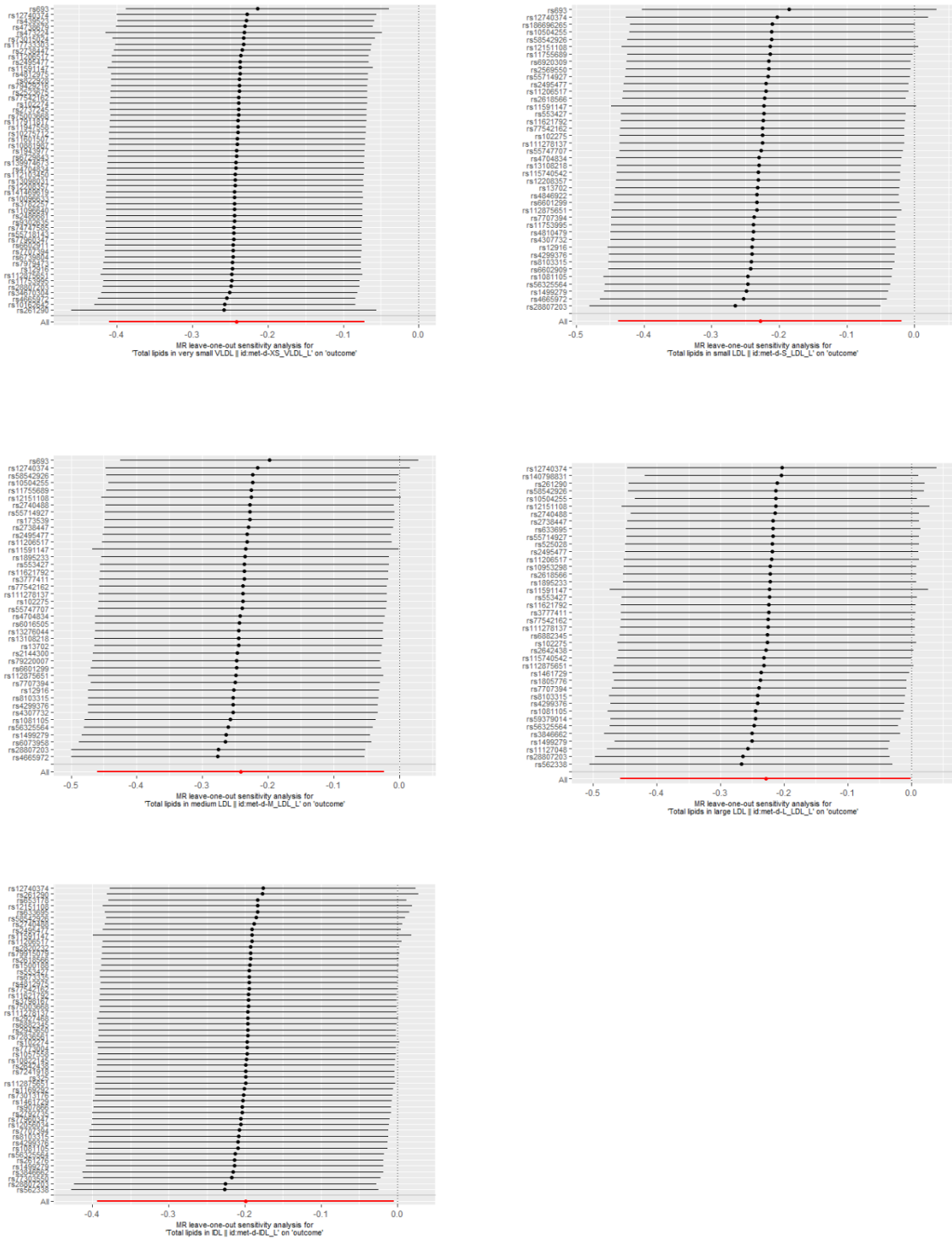
# Other



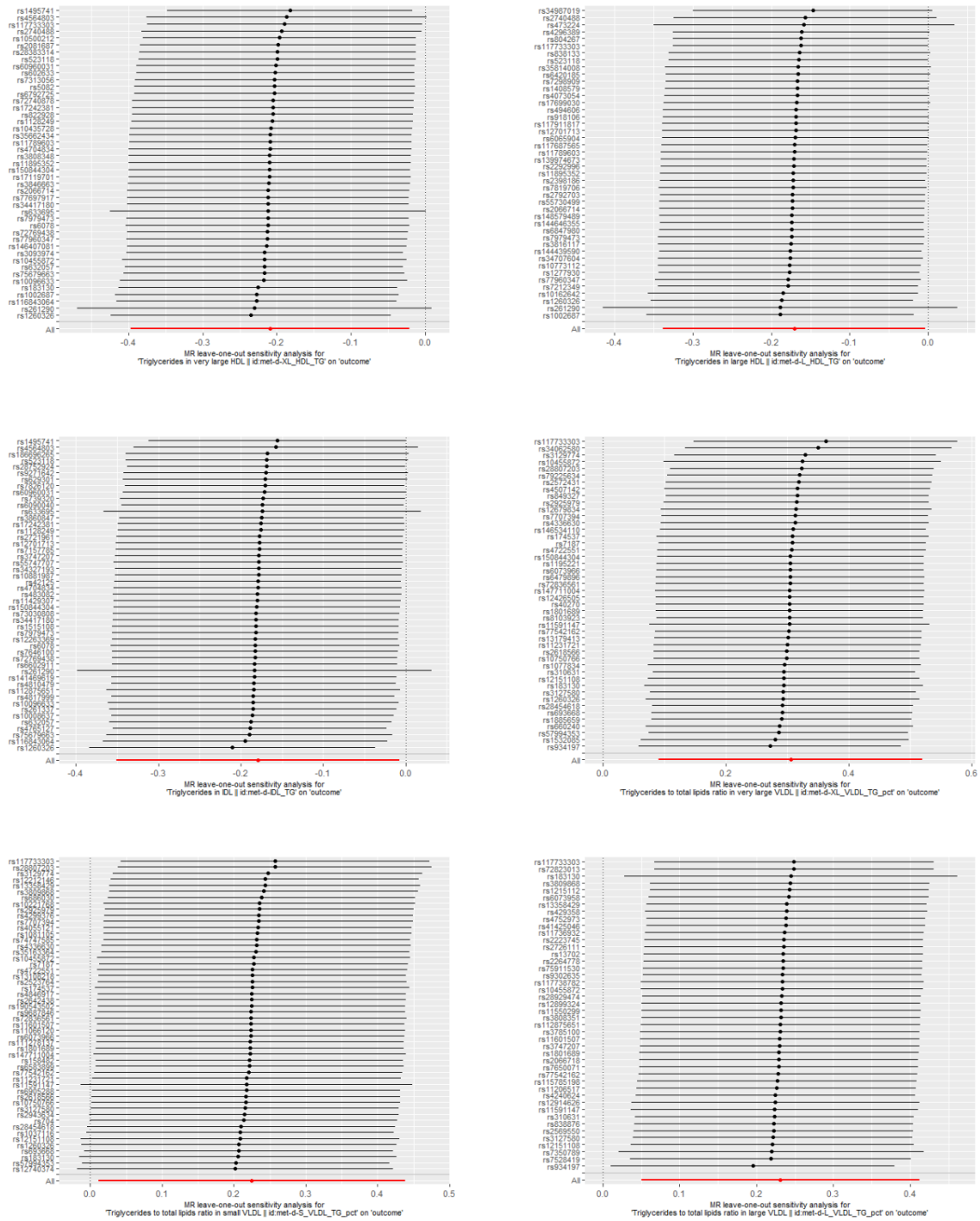
Supplementary Figure S1. Scatter plot results of IVW, weighted median and MR-Egger.

# Supplementary Figure S2. Leave-one-out results of IVW, weighted median and MR-Egger. Pages 12-22.

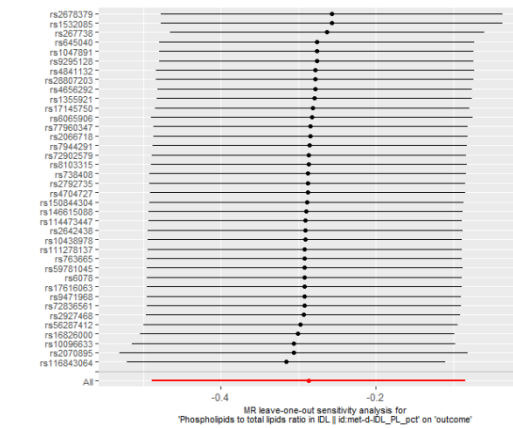
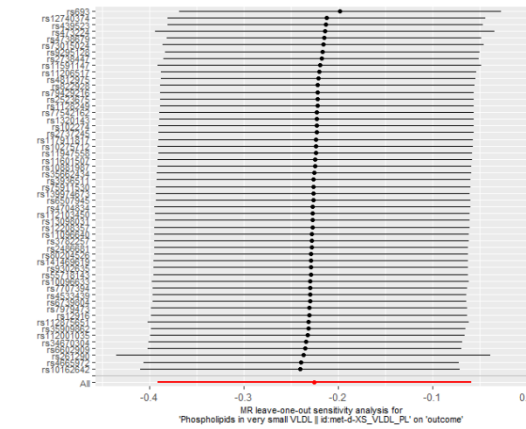
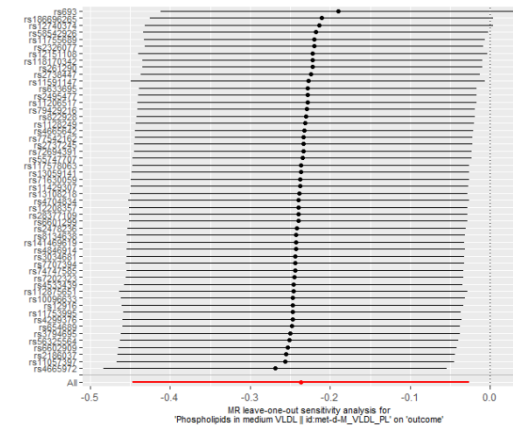
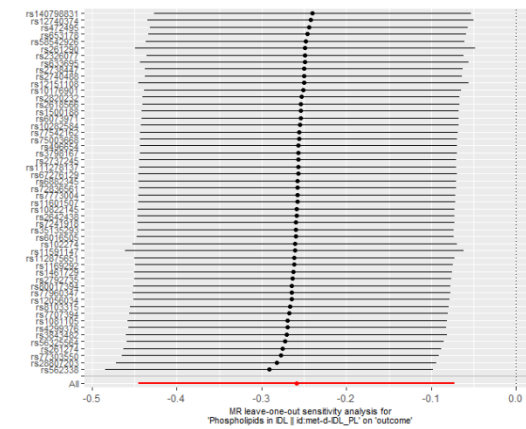
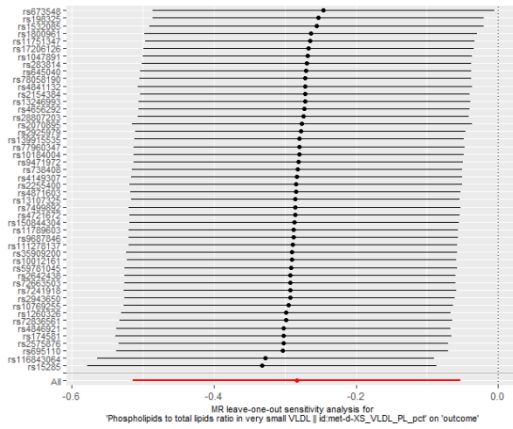
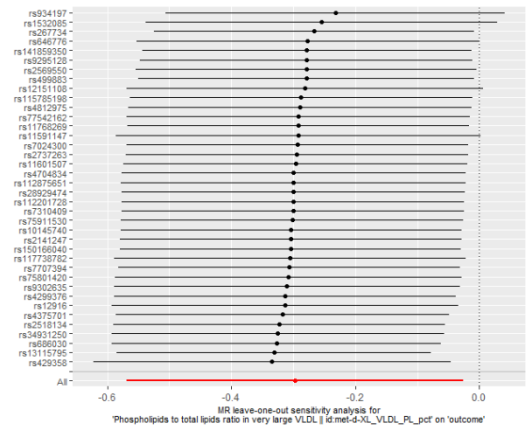
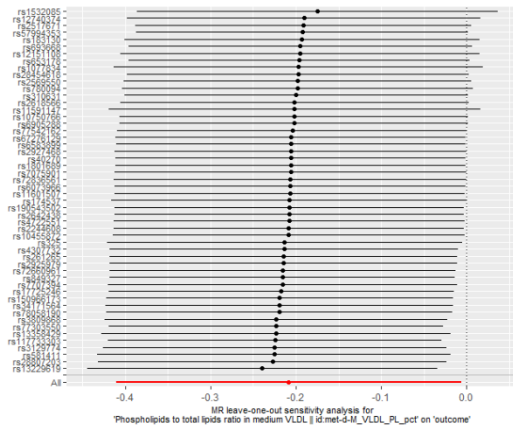
## Total lipids



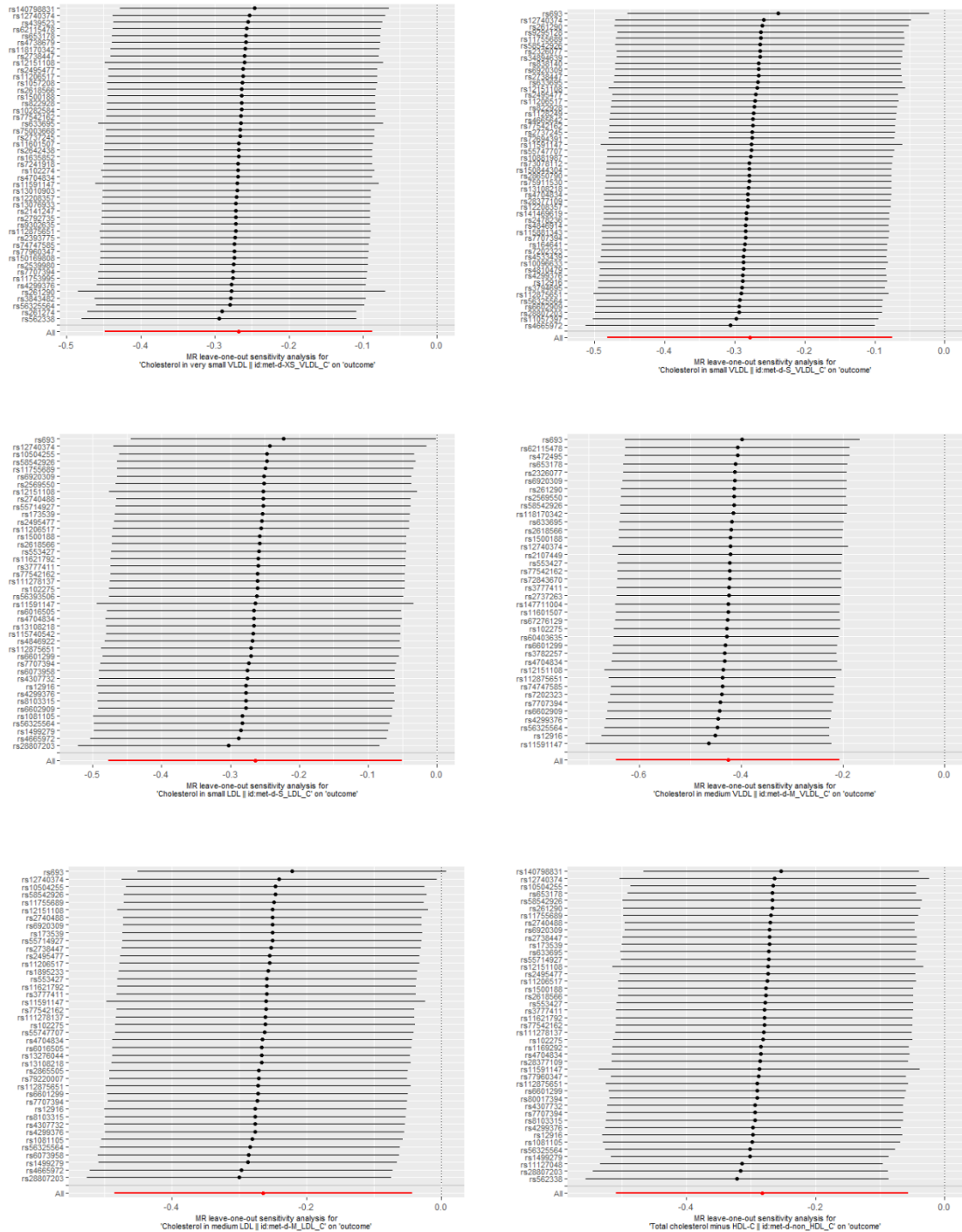
# Triglycerides



# Phospholipids

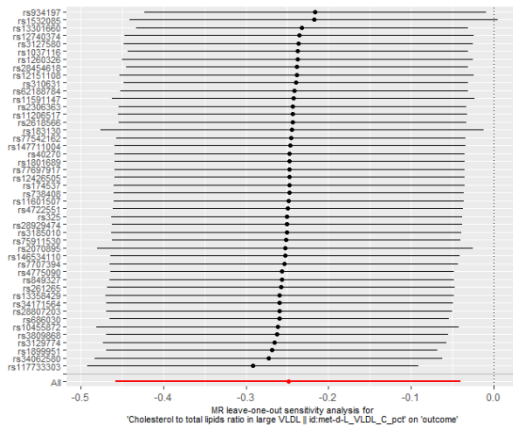
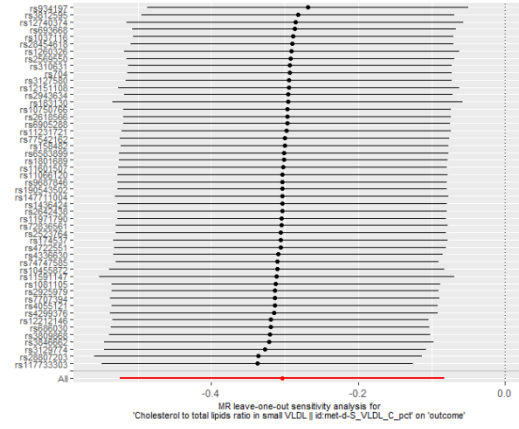
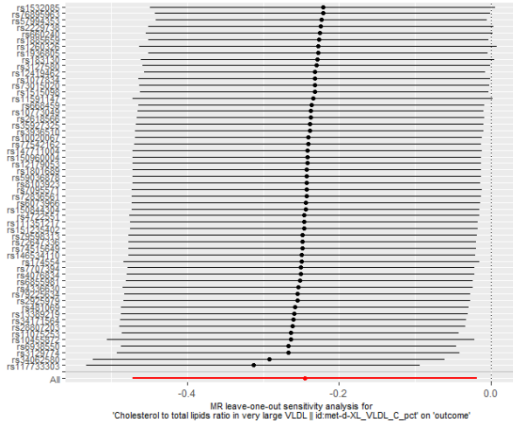
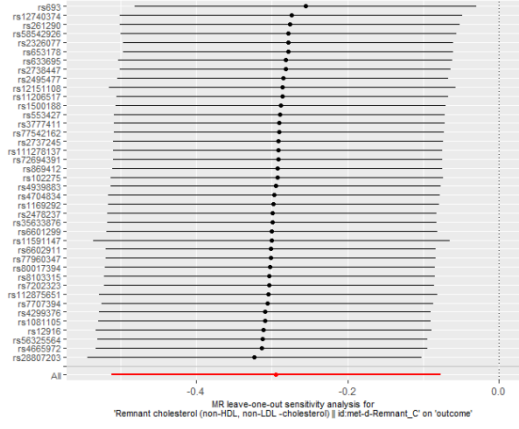
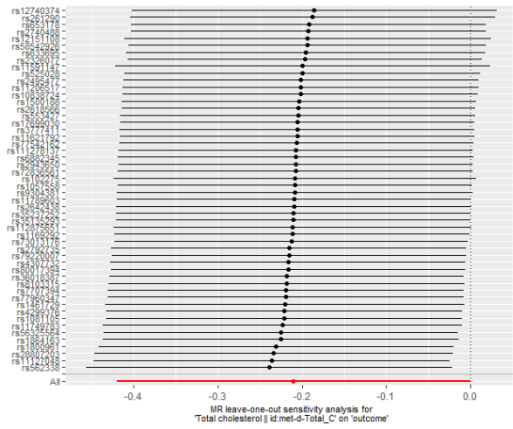


# Cholesterol

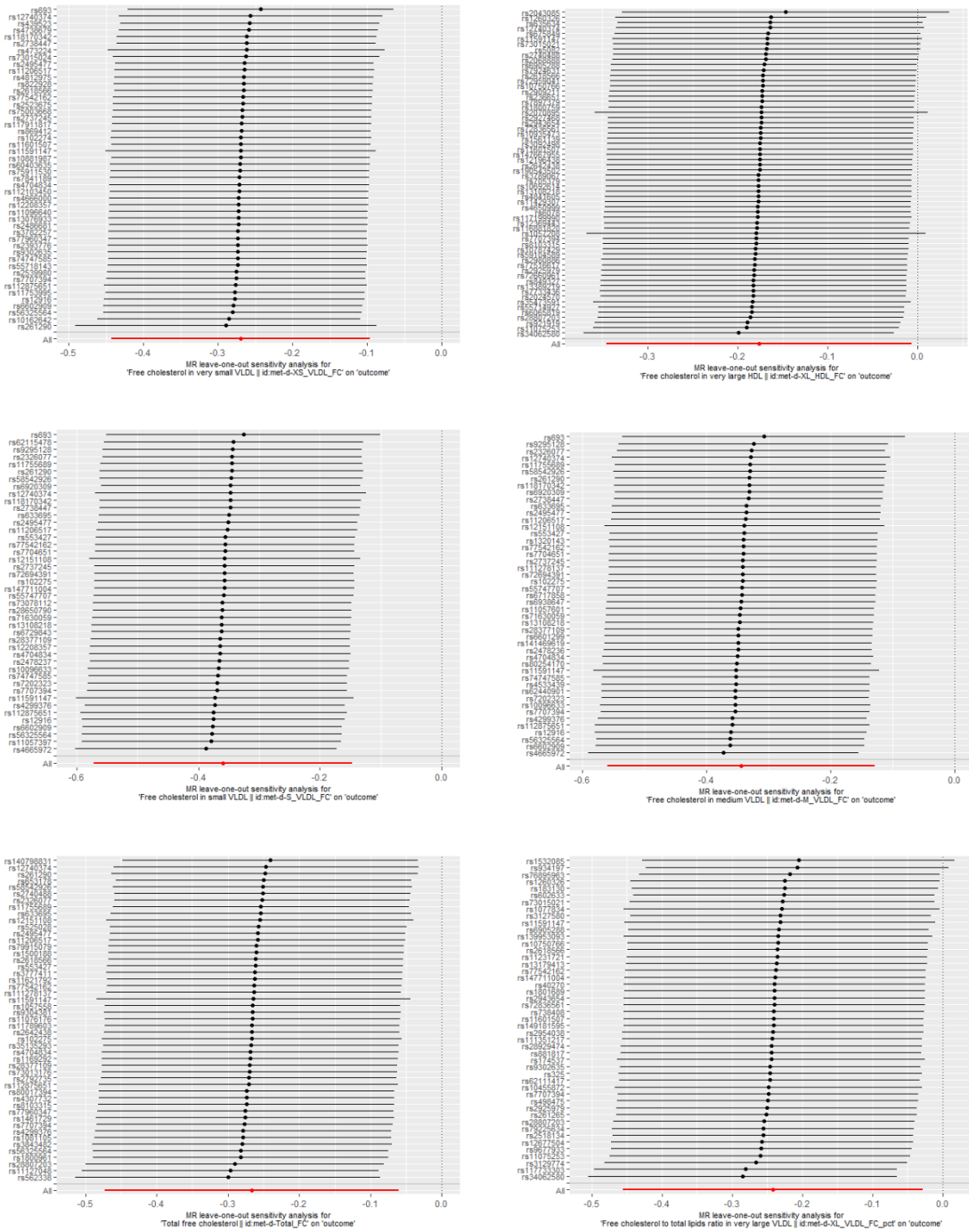




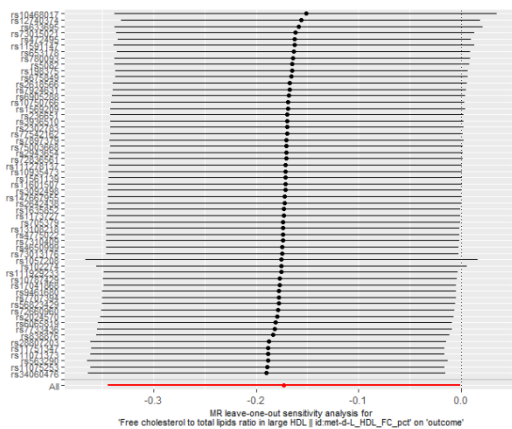
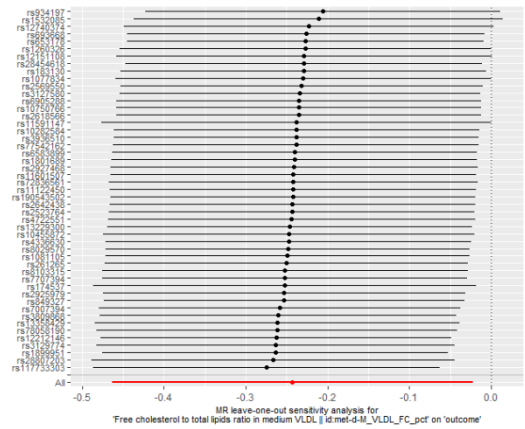
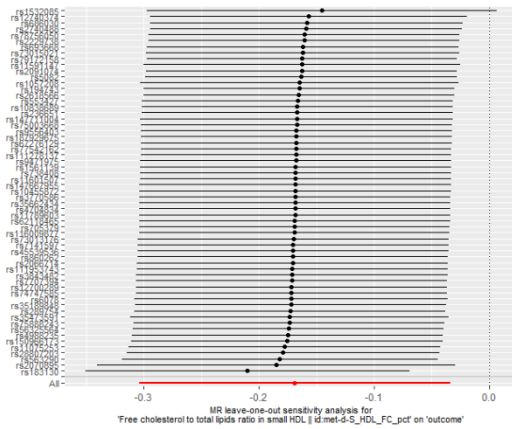
# Cholesterol - continued



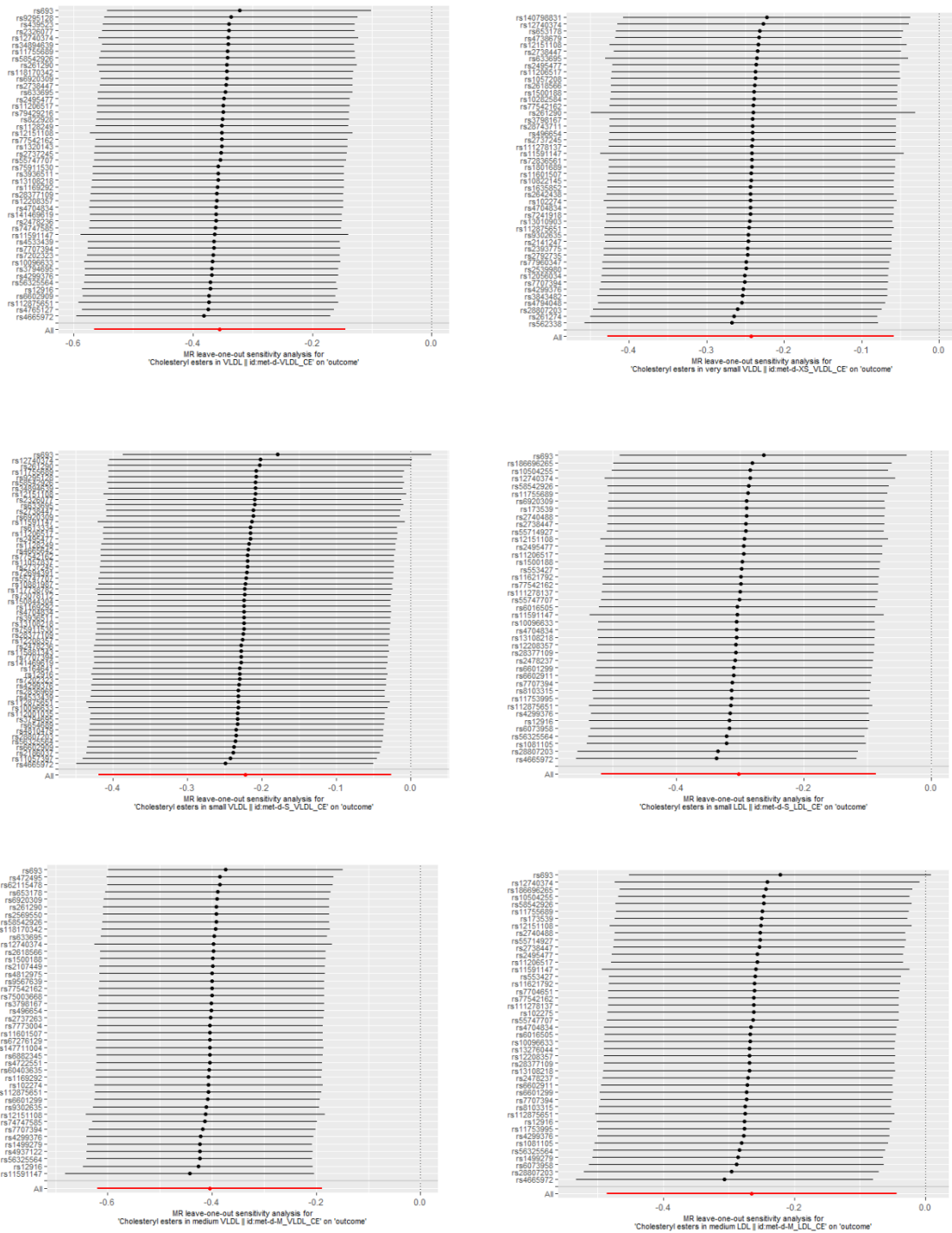
# Free cholesterol



# Free cholesterol - continued

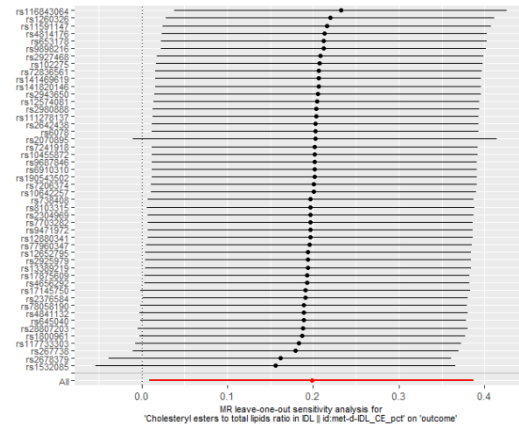
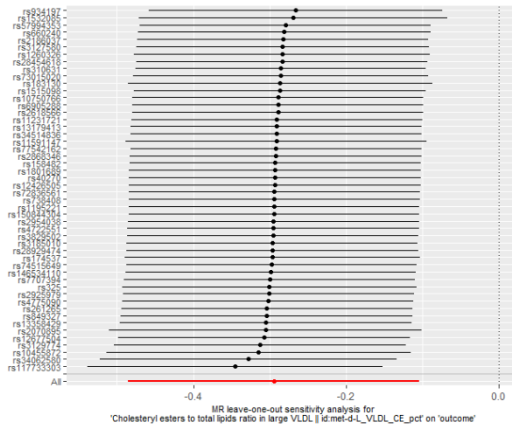
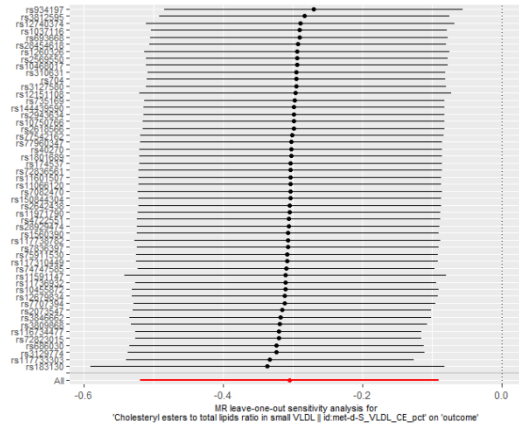
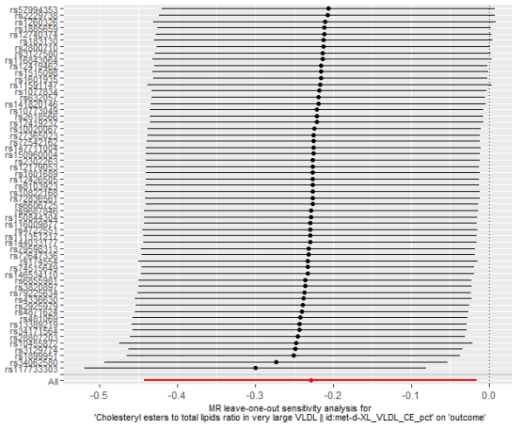


# Cholesteryl esters

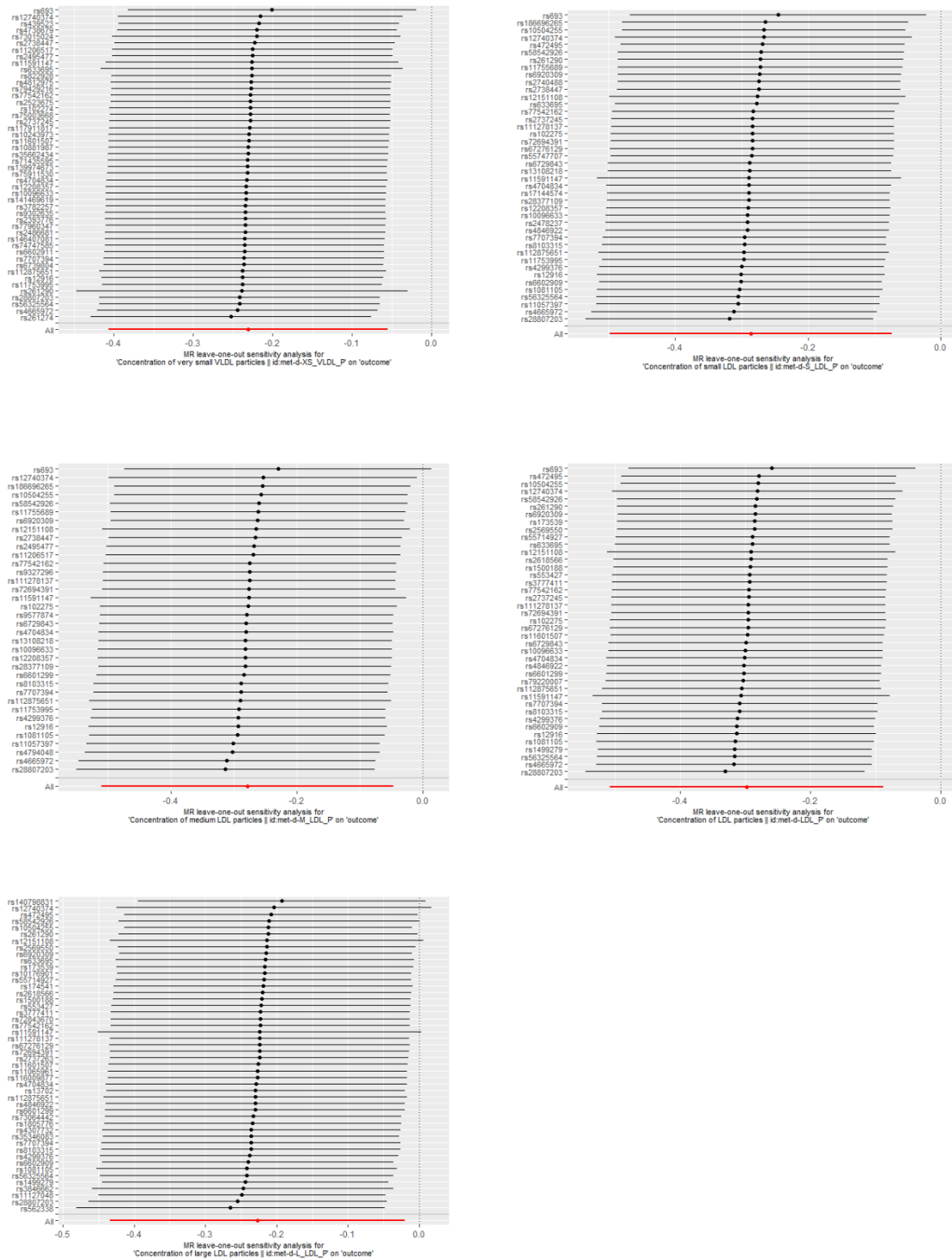


Supplementary Figure S2. Leave-one-out results of IVW, weighted median and MR-Egger. <sup>20</sup>

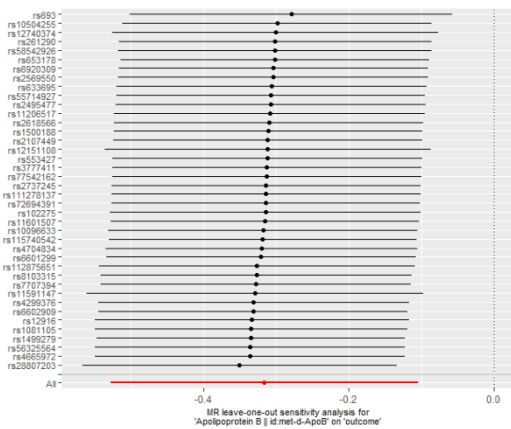
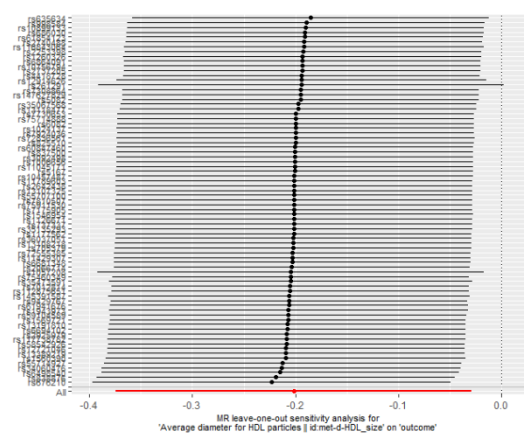
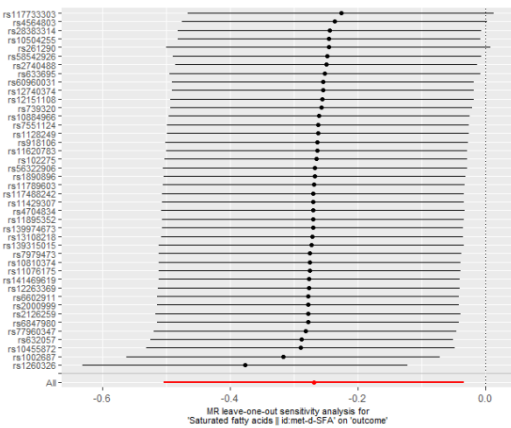
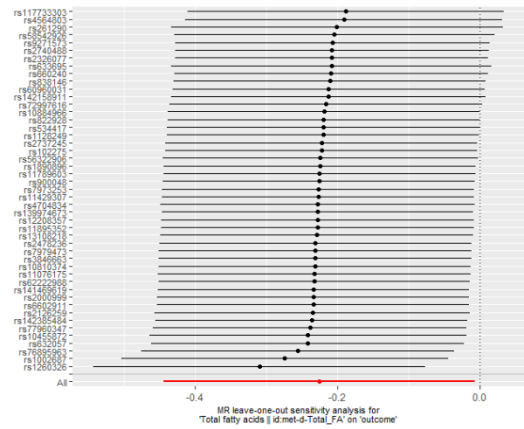
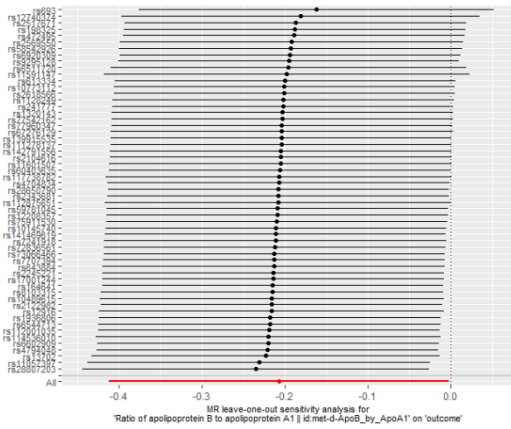
# Cholesteryl esters - continued



# Lipoprotein



# Other



## Supplementary Figure S3. Lipids remained significant after multivariable MR.

