

Supplementary Table1 Subgroup analyses of incidence of laryngopharyngeal reflux in OSAHS patients

Subgroup analysis(n)	ES (95% CI)	P-value	I <sup>2</sup> (%)	Ph
Overall (26)	0.48(0.40-0.56)	<0.001	96.7	<0.001
Ethnicity				
Caucasian (6)	0.59(0.42-0.77)	<0.001	94.2	<0.001
Asian (15)	0.43(0.33-0.53)	<0.001	93.0	<0.001
Latino (5)	0.56(0.31-0.82)	<0.001	98.7	<0.001
BMI				
BMI < 30(14)	0.41(0.32-0.51)	<0.001	93.4	<0.001
BMI ≥ 30(12)	0.59(0.43-0.75)	<0.001	97.4	<0.001
AHI				
AHI < 30(14)	0.44(0.40-0.58)	<0.001	96.5	<0.001
AHI ≥ 30(12)	0.55(0.41-0.70)	<0.001	96.7	<0.001

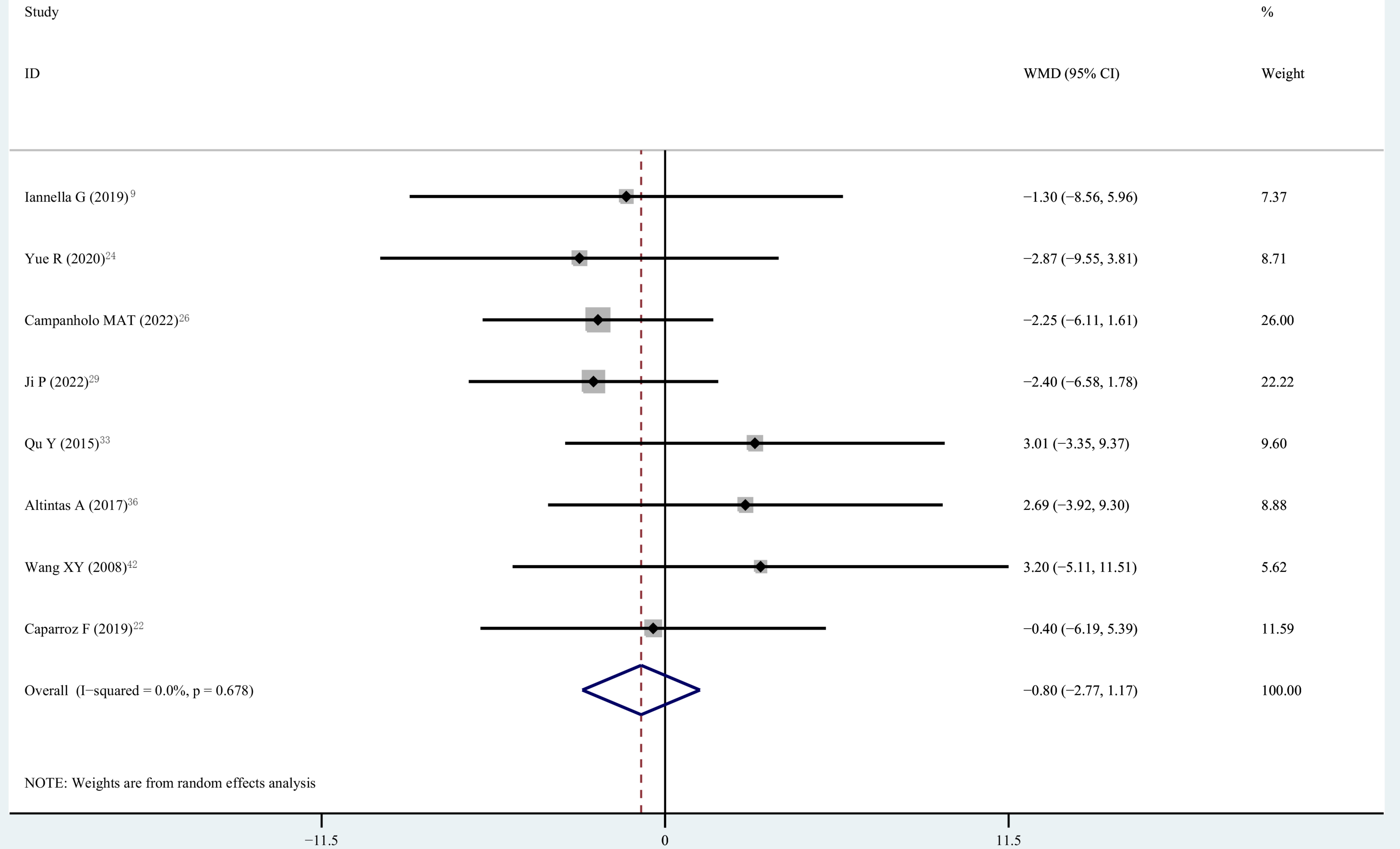
Ph: P<sub>heterogeneity</sub>

Supplementary Table 2 Meta-analysis: differences regarding AHI, BMI, age and LSO<sub>2</sub> between patients with and without laryngopharyngeal reflux disease

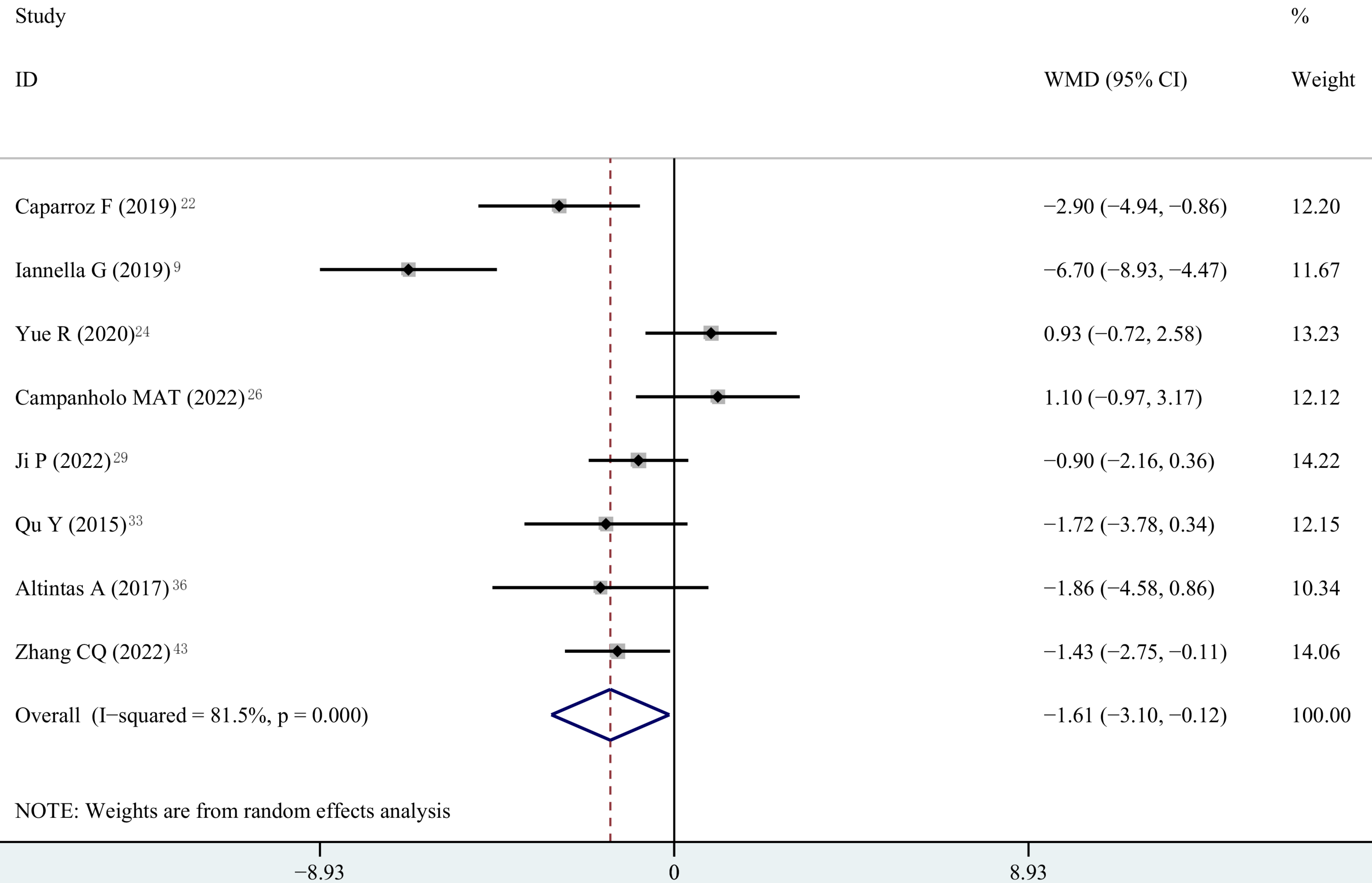
Study (LRP- versus. LRP+)	WMD (95% CI)	P-value	I <sup>2</sup> (%)	P <sub>h</sub>
Age(n=8)	-0.80(-2.77-1.17)	0.425	0	0.678
BMI(n=8)	-1.61(-3.10- -0.12)	0.034	81.5	<0.001
AHI(n=10)	-5.61(-9.51- -1.70)	0.005	65.1	0.002
LSO <sub>2</sub> (n=5)	3.82(2.81-4.83)	0.007	0	0.822

P<sub>h</sub>: P heterogeneity; LSO<sub>2</sub>: Lowest oxygen saturation

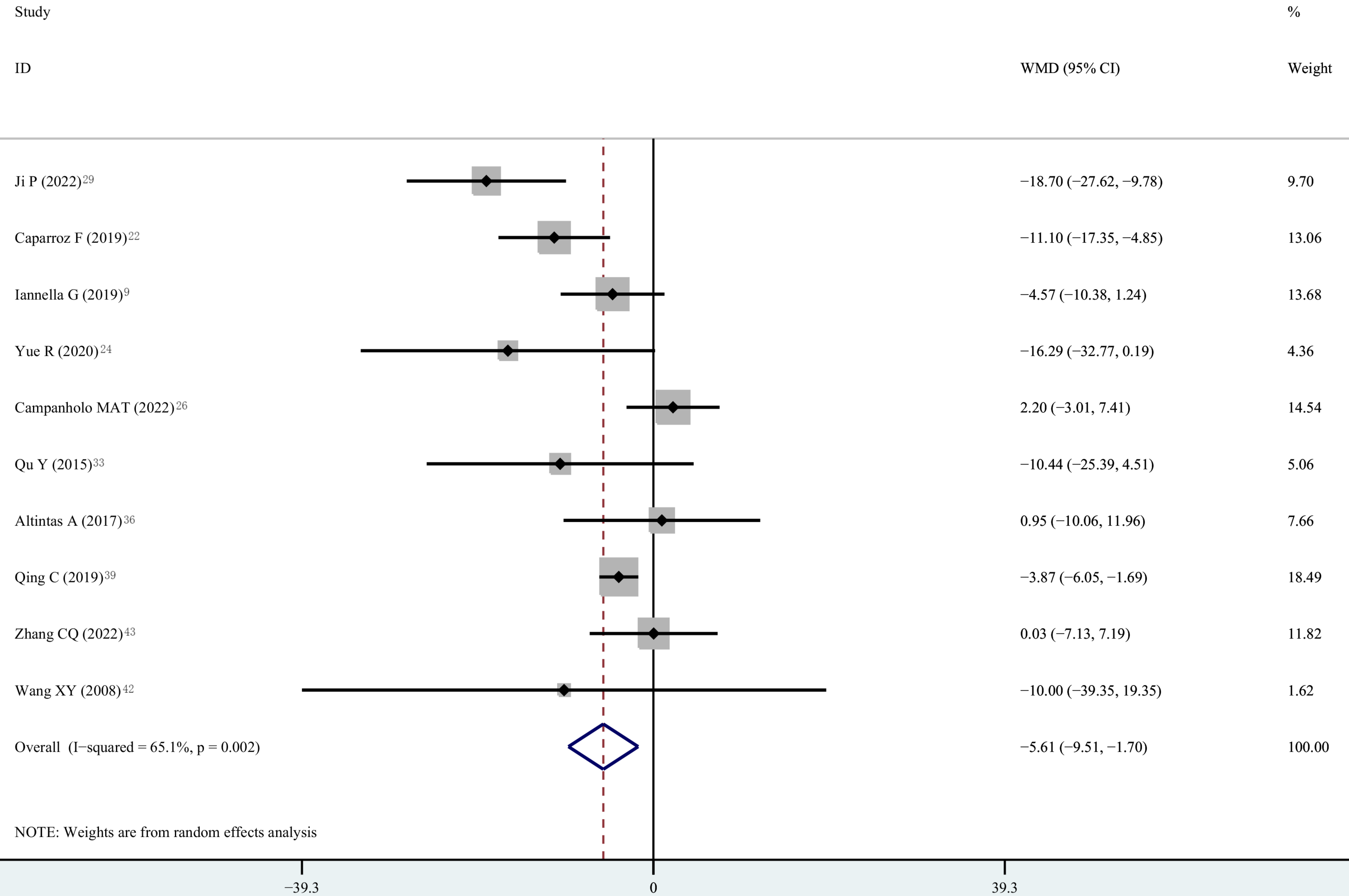
Supplementary figure 1



Supplementary figure 2



Supplementary figure 3



Supplementary figure 4

Study

%

ID

WMD (95% CI)

Weight

Caparroz F (2018)<sup>22</sup>

3.10 (-1.64, 7.84)

4.57

Ji P (2022)<sup>29</sup>

4.60 (-1.12, 10.32)

3.15

Qu Y (2015)<sup>33</sup>

3.41 (2.14, 4.68)

63.60

Qing C (2019)<sup>39</sup>

4.78 (2.87, 6.69)

28.10

Wang XY (2008)<sup>42</sup>

3.70 (-9.50, 16.90)

0.59

Overall (I-squared = 0.0%, p = 0.822)

3.82 (2.81, 4.83)

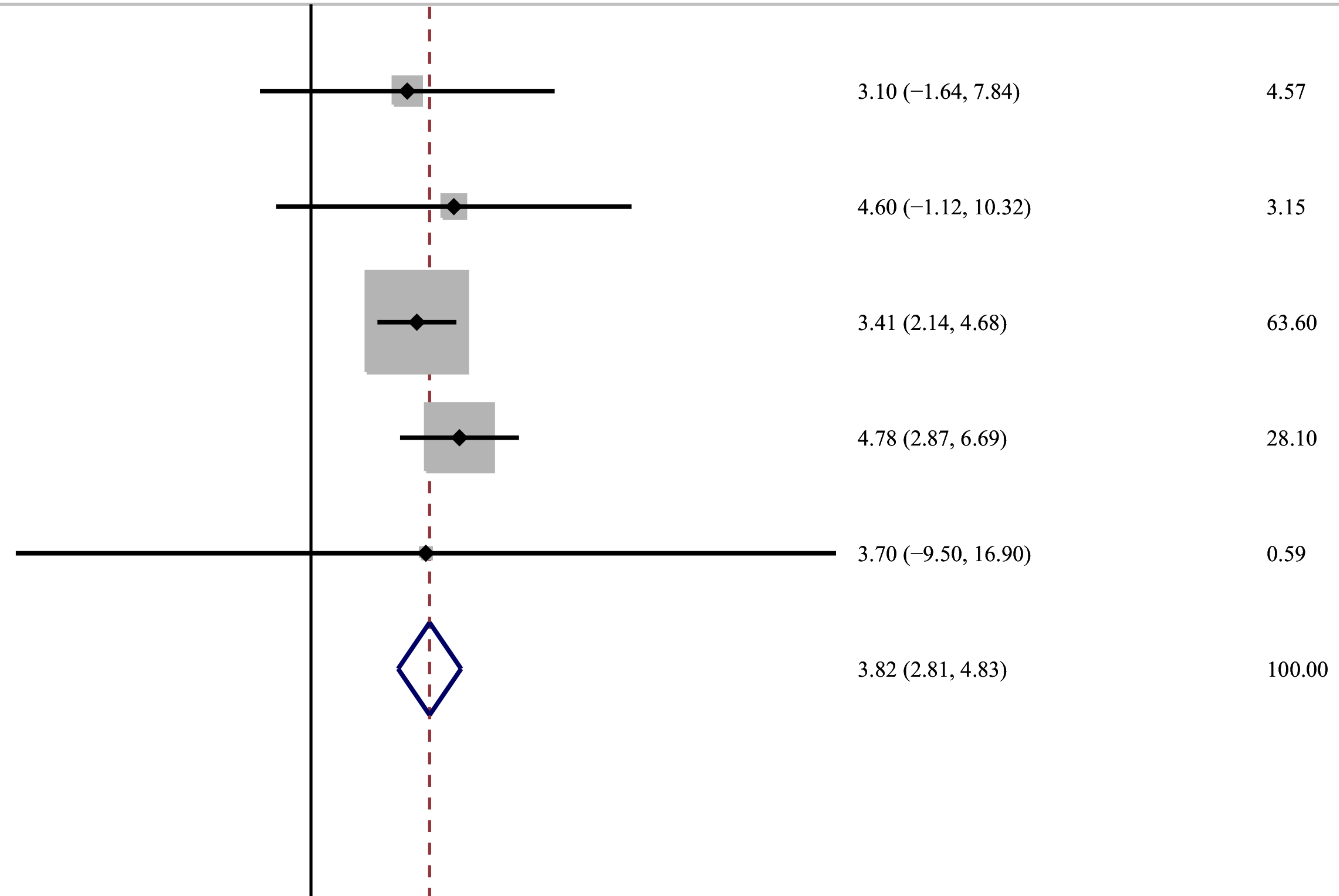
100.00

NOTE: Weights are from random effects analysis

-16.9

0

16.9



**Supplementary Figure 1.** WMD forest plot and its 95%CI for ages in LPR+ OSAHS group and LPR- OSAHS group.

**Supplementary Figure 2.** WMD forest plot and its 95%CI for BMI in LPR- OSAHS group and LPR+ OSAHS group.

**Supplementary Figure 3.** WMD forest plot and its 95%CI for AHI in LPR- OSAHS group and LPR+ OSAHS group.

**Supplementary Figure 4.** WMD forest plot and its 95%CI for minimum oxygen saturation in LPR- OSAHS group and LPR+ OSAHS group.