

**Supplement 3. Subgroup analysis: Vitamin D deficiency in SEA region by residency (n = 9 studies)**

VDD: Vitamin-D deficiency; CI: confidence interval, Cohort studies with multiple vitamin D measurements were presented for each measurement (Oktaria et al). The test of group differences for VDD by residency was  $Q_{\text{b}} = 2.74$ , p-value 0.098