

Supplementary Table 1. Associations of 25-hydroxyvitamin D Concentration with Hypertensive Disorders of Pregnancy; Average of 2 assays compared to individual assays (manual radioimmunoassay and automated chemiluminescence). Project Viva, n=1591.

		Average of Manual and Automatic Assays OR (95% CI)	Manual Radioimmunoassay OR (95% CI)	Automated Chemiluminescence OR (95% CI)
<u>Preeclampsia Models</u>				
Continuous 25(OH)D				
Model 1	Continuous 25(OH)D (per 25 nmol/L)	0.89 (0.62, 1.26)	0.96 (0.69, 1.34)	0.83 (0.59, 1.18)
Model 2	Continuous 25(OH)D (per 25 nmol/L)	0.94 (0.64, 1.39)	1.02 (0.72, 1.46)	0.87 (0.60, 1.28)
Model 3	Continuous 25(OH)D (per 25 nmol/L)	1.15 (0.79, 1.69)	1.21 (0.85, 1.71)	1.06 (0.73, 1.54)
Model 4	Continuous 25(OH)D (per 25 nmol/L)	1.14 (0.77, 1.67)	1.19 (0.84, 1.69)	1.05 (0.72, 1.53)
Categorical 25(OH)D				
Model 1	< 25 nmol/L	1.30 (0.37, 4.53)	1.91 (0.54, 6.71)	1.57 (0.67, 3.68)
	25 - < 50 nmol/L	1.03 (0.52, 2.05)	1.04 (0.48, 2.28)	0.66 (0.32, 1.37)
	50 - < 75 nmol/L	1.0 (ref)	1.0 (ref)	1.0 (ref)
	≥ 75 nmol/L	1.12 (0.52, 2.42)	1.26 (0.64, 2.47)	1.16 (0.50, 2.71)
Model 2	< 25 nmol/L	1.08 (0.28, 4.23)	1.73 (0.45, 6.67)	1.54 (0.60, 3.93)
	25 - < 50 nmol/L	0.97 (0.47, 1.98)	0.98 (0.43, 2.22)	0.64 (0.30, 1.35)
	50 - < 75 nmol/L	1.0 (ref)	1.0 (ref)	1.0 (ref)
	≥ 75 nmol/L	1.16 (0.53, 2.55)	1.36 (0.69, 2.70)	1.29 (0.54, 3.04)
Model 3	< 25 nmol/L	0.57 (0.13, 2.44)	0.91 (0.21, 3.89)	0.91 (0.33, 2.48)
	25 - < 50 nmol/L	0.78 (0.37, 1.61)	0.79 (0.35, 1.81)	0.52 (0.24, 1.11)
	50 - < 75 nmol/L	1.0 (ref)	1.0 (ref)	1.0 (ref)
	≥ 75 nmol/L	1.33 (0.59, 2.99)	1.51 (0.75, 3.03)	1.38 (0.57, 3.35)
Model 4	< 25 nmol/L	0.60 (0.14, 2.56)	0.96 (0.23, 4.11)	0.92 (0.33, 2.53)
	25 - < 50 nmol/L	0.79 (0.38, 1.65)	0.80 (0.35, 1.84)	0.51 (0.24, 1.11)
	50 - < 75 nmol/L	1.0 (ref)	1.0 (ref)	1.0 (ref)
	≥ 75 nmol/L	1.34 (0.60, 3.01)	1.49 (0.74, 3.00)	1.37 (0.56, 3.30)
<u>Gestational Hypertension Models</u>				
Continuous 25(OH)D				
Model 1	Continuous 25(OH)D (per 25 nmol/L)	1.25 (0.98, 1.58)	1.24 (0.99, 1.56)	1.20 (0.96, 1.50)
Model 2	Continuous 25(OH)D (per 25 nmol/L)	1.18 (0.91, 1.54)	1.18 (0.92, 1.52)	1.14 (0.90, 1.46)
Model 3	Continuous 25(OH)D (per 25 nmol/L)	1.31 (1.00, 1.70)	1.28 (0.99, 1.65)	1.26 (0.98, 1.61)
Model 4	Continuous 25(OH)D (per 25 nmol/L)	1.32 (1.01, 1.72)	1.29 (1.00, 1.66)	1.27 (0.99, 1.62)
Categorical 25(OH)D				
Model 1	< 25 nmol/L	0.33 (0.05, 2.13)	0.32 (0.05, 2.19)	0.67 (0.26, 1.75)
	25 - < 50 nmol/L	1.08 (0.66, 1.78)	0.58 (0.32, 1.06)	1.13 (0.70, 1.84)
	50 - < 75 nmol/L	1.0 (ref)	1.0 (ref)	1.0 (ref)
	> 75 nmol/L	1.39 (0.79, 2.43)	0.90 (0.55, 1.45)	1.44 (0.76, 2.74)
Model 2	< 25 nmol/L	0.47 (0.07, 3.24)	0.42 (0.06, 3.14)	0.92 (0.34, 2.53)
	25 - < 50 nmol/L	1.16 (0.69, 1.95)	0.62 (0.34, 1.16)	1.18 (0.71, 1.94)
	50 - < 75 nmol/L	1.0 (ref)	1.0 (ref)	1.0 (ref)
	> 75 nmol/L	1.37 (0.78, 2.42)	0.89 (0.54, 1.46)	1.38 (0.72, 2.64)
Model 3	< 25 nmol/L	0.36 (0.05, 2.54)	0.32 (0.04, 2.38)	0.75 (0.27, 2.09)
	25 - < 50 nmol/L	1.02 (0.60, 1.72)	0.54 (0.29, 1.01)	1.04 (0.62, 1.73)
	50 - < 75 nmol/L	1.0 (ref)	1.0 (ref)	1.0 (ref)
	> 75 nmol/L	1.46 (0.82, 2.60)	0.94 (0.57, 1.55)	1.44 (0.75, 2.79)
Model 4	< 25 nmol/L	0.34 (0.05, 2.40)	0.30 (0.04, 2.29)	0.70 (0.25, 1.97)
	25 - < 50 nmol/L	0.98 (0.57, 1.66)	0.52 (0.27, 0.98)	1.02 (0.61, 1.70)
	50 - < 75 nmol/L	1.0 (ref)	1.0 (ref)	1.0 (ref)
	≥ 75 nmol/L	1.46 (0.82, 2.60)	0.93 (0.56, 1.53)	1.43 (0.74, 2.77)

Model 1. Unadjusted**Model 2.** Adjusted for maternal age, race/ethnicity, smoking, education, marital status, parity, season of last menstrual period, and gestational age at blood draw**Model 3.** Model 2 + pre-pregnancy BMI and gestational weight gain (up to the time of blood collection)**Model 4.** Model 3 + 2nd trimester physical activity and 2nd trimester dietary intakes of fish and calcium**Abbreviations:** 25(OH)D, 25-hydroxyvitamin D; BMI, body mass index; CI, confidence interval; OR, odds ratio