

**Supplementary Table SIV Association between adjusted<sup>a</sup> semen quality parameter [mean (95% CI)] and intake of high/low-to-moderate residue fruit and vegetable intake, according to individual measures of contamination.**

	<b>Total sperm count (millions)</b>	<b>Sperm concentration (millions/ml)</b>	<b>Total motility (% PR + NP)</b>	<b>Progressive motility (% PR)</b>	<b>Sperm morphology (% normal)</b>	<b>Ejaculate volume (ml)</b>
Quartile intake [range, servings/day] of high pesticide residue fruits and vegetables <sup>b</sup>						
First measure: percentage of samples with any detectable pesticides (score = 2)						
Q1 [0.1, 0.6]	152 (121, 191)	59.8 (46.3, 77.4)	50.4 (43.0, 57.9)	28.1 (23.2, 33.1)	7.3 (6.0, 8.6)	2.9 (2.5, 3.4)
Q2 [0.6, 0.9]	135 (104, 175)	47.8 (36.5, 62.5)	46.9 (41.1, 52.6)	27.1 (23.4, 30.7)	5.8 (4.7, 6.8)*	3.2 (2.8, 3.6)
Q3 [1.0, 1.6]	105 (81, 136)*	41.8 (31.4, 55.7)	44.5 (37.9, 51.1)	25.7 (21.0, 30.4)	6.4 (5.5, 7.3)	2.8 (2.4, 3.1)
Q4 [1.6, 4.6]	114 (85, 154)	51.8 (37.6, 71.2)	42.6 (32.6, 52.5)	26.2 (18.2, 34.1)	5.7 (4.4, 7.0)	2.4 (2.0, 2.9)
P, trend <sup>d</sup>	0.11	0.54	0.25	0.66	0.33	0.07
Second measure: percentage of samples with pesticide exceeding tolerance level (score = 2)						
Q1 [0.0, 0.4]	160 (124, 207)	54.5 (41.0, 72.4)	49.7 (42.8, 56.6)	27.8 (23.1, 32.6)	7.6 (6.3, 8.9)	3.4 (2.9, 3.8)
Q2 [0.4, 0.6]	141 (111, 178)	52.1 (39.9, 68.1)	44.8 (38.3, 51.2)	24.8 (20.7, 28.9)	6.1 (5.1, 7.2)	3.1 (2.7, 3.5)
Q3 [0.6, 1.0]	103 (81, 132)*	40.5 (31.7, 51.7)	43.9 (37.6, 50.2)	25.0 (20.8, 29.3)	5.8 (4.9, 6.7)*	2.8 (2.4, 3.1)*
Q4 [1.0, 3.2]	104 (71, 151)	54.1 (37.7, 77.7)	46.4 (37.1, 55.8)	30.1 (21.0, 39.3)	5.5 (4.1, 6.8)*	2.1 (1.6, 2.5)*
P, trend <sup>d</sup>	0.13	0.88	0.85	0.51	0.12	0.0004
Third measure: percentage of samples with three or more types of detectable pesticides (score = 2)						
Q1 [0.1, 0.6]	172 (130, 228)	65.6 (46.5, 92.7)	51.3 (43.2, 59.5)	29.7 (24.5, 35.0)	7.1 (5.8, 8.3)	3.2 (2.6, 3.7)
Q2 [0.6, 1.2]	138 (107, 178)	51.0 (39.0, 66.7)	46.9 (40.4, 53.3)	26.5 (22.3, 30.7)	6.5 (5.3, 7.7)	3.0 (2.6, 3.3)
Q3 [1.2, 1.9]	119 (94, 152)	45.1 (34.6, 58.8)	44.8 (38.4, 51.2)	25.7 (21.4, 30.1)	6.0 (5.2, 6.9)	2.9 (2.6, 3.2)
Q4 [1.9, 5.6]	83 (59, 117)*	39.6 (27.9, 56.0)	41.0 (31.3, 50.7)	25.0 (15.9, 34.2)	5.4 (4.2, 6.7)	2.3 (1.8, 2.9)
P, trend <sup>d</sup>	0.006	0.12	0.21	0.59	0.16	0.06
Quartile intake[range] of low-to-moderate pesticide residue fruits and vegetables <sup>c</sup>						
First measure: percentage of samples with any detectable pesticides (score = 0 or 1)						
Q1 [0.2, 1.3]	128 (96, 171)	51.8 (37.1, 72.2)	44.4 (36.7, 52.2)	26.0 (20.9, 31.2)	6.3 (5.0, 7.6)	3.0 (2.4, 3.5)
Q2 [1.4, 2.2]	129 (95, 174)	45.3 (32.7, 63.0)	39.8 (32.8, 46.8)	24.6 (18.3, 30.9)	5.7 (4.6, 6.7)	3.1 (2.7, 3.4)
Q3 [2.2, 3.1]	126 (103, 154)	46.8 (37.8, 58.0)	46.1 (39.3, 53.0)	26.2 (21.8, 30.5)	6.6 (5.6, 7.6)	3.0 (2.5, 3.4)
Q4 [3.2, 7.8]	120 (83, 173)	57.6 (40.0, 83.0)	56.4 (47.7, 65.2)	31.4 (24.8, 37.9)	6.7 (5.3, 8.1)	2.3 (1.8, 2.8)
P, trend <sup>d</sup>	0.81	0.75	0.09	0.32	0.63	0.15
Second measure: percentage of samples with pesticide exceeding tolerance level (score = 0 or 1)						
Q1 [0.2, 1.6]	123 (93, 163)	51.3 (36.4, 72.3)	45.2 (37.3, 53.1)	26.3 (21.3, 31.3)	5.8 (4.5, 7.0)	2.8 (2.3, 3.3)
Q2 [1.6, 2.6]	150 (115, 197)	53.0 (40.0, 70.3)	46.0 (39.5, 52.5)	27.6 (21.5, 33.7)	6.2 (5.0, 7.3)	3.1 (2.8, 3.4)
Q3 [2.6, 3.5]	115 (90, 146)	44.4 (34.8, 56.7)	46.0 (39.0, 53.1)	27.3 (22.5, 32.2)	6.5 (5.5, 7.5)	2.9 (2.5, 3.3)
Q4 [3.6, 10.2]	116 (89, 152)	50.4 (37.6, 67.7)	47.8 (39.6, 56.0)	25.7 (20.5, 30.9)	6.8 (5.5, 8.1)	2.6 (2.1, 3.1)
P, trend <sup>d</sup>	0.55	0.85	0.70	0.90	0.83	0.34
Third measure: percentage of samples with three or more types of detectable pesticides (score = 0 or 1)						
Q1 [0.2, 1.3]	109 (82, 146)	44.8 (32.1, 62.6)	43.8 (35.7, 52.0)	27.9 (20.2, 35.7)	5.6 (4.4, 6.8)	2.8 (2.3, 3.3)
Q2 [1.3, 2.1]	126 (94, 168)	47.7 (36.7, 61.8)	43.6 (37.8, 49.4)	24.9 (20.5, 29.2)	5.9 (5, 6.8.0)	2.9 (2.6, 3.2)
Q3 [2.1, 2.6]	123 (96, 157)	45.0 (34.3, 59.1)	43.5 (36.7, 50.4)	25.0 (20.7, 29.4)	6.8 (5.7, 8.0)	2.9 (2.6, 3.3)
Q4 [2.6, 8.5]	152 (114, 204)	66.6 (47.3, 93.9)	54.8 (44.9, 64.7)	29.7 (23.4, 35.9)	7.0 (5.8, 8.3)	2.7 (2.2, 3.3)
P, trend <sup>d</sup>	0.21	0.23	0.20	0.85	0.11	0.87

<sup>a</sup>Adjusted for total energy intake, abstinence time, age, BMI, moderate-vigorous physical activity, race, prudent and western dietary patterns, smoking status and history of varicocele.

<sup>b</sup>Using the tertile as cutoff for the three measures of contamination, high pesticide residue fruits and vegetables were defined as a score = 2. Models were additionally adjusted for low-to-moderate residual fruits and vegetable intake.

<sup>c</sup>Using the tertile level as cutoff for the three measures of contamination, low-to-moderate pesticide residue fruits and vegetables were defined as a score = 0 or 1. Models were additionally adjusted for high residual fruit and vegetable intake.

<sup>d</sup>Estimated using median intake in each quartile as a continuous variable.

\*P-value for trend <0.05 compared with men in the lowest quartile of intake.