Supplemental Table 1. Semen parameters and cancer risk in men with SA versus fertile men

	All-Site		Prostate		Melanoma		Testicular		Other	
	HR	95% CI	HR	95% CI	HR	95% CI	HR	95% CI	HR	95% CI
Model 1: Infertile vs. Fertile Controls										
Infertile	1.17	(0.96, 1.41)	0.90	(0.54, 1.52)	1.35	(0.9, 2.02)	3.30	(1.59, 6.86)	0.99	(0.76, 1.29)
Model 2: Concentration vs. Fertile Controls										
Azoospermia	1.00	(0.49, 2.06)	0.37	(0.04, 3.26)	0.90	(0.19, 4.25)	3.67	(0.45, 30.25)	1.12	(0.44, 2.85)
Oligozoospermic	1.66	(1.13, 2.41)	0.53	(0.12, 2.26)	1.12	(0.44, 2.88)	11.89	(4.91, 28.82)	1.36	(0.79, 2.35)
Normozoospermic	1.08	(0.84, 1.39)	1.12	(0.59, 2.12)	0.96	(0.55, 1.68)	2.86	(1.22, 6.71)	0.97	(0.69, 1.36)
Hyperzoospermic	1.15	(0.88, 1.50)	0.87	(0.39, 1.97)	1.95	(1.21, 3.16)	1.60	(0.57, 4.45)	0.90	(0.62, 1.31)
Model 3: Count vs. Fertile Controls										
Azoospermia	1.01	(0.49, 2.08)	0.38	(0.04, 3.32)	0.92	(0.19, 4.31)	3.51	(0.42, 29.3)	1.15	(0.45, 2.92)
Oligozoospermic	1.78	(1.23, 2.58)	0.88	(0.28, 2.77)	1.29	(0.54, 3.11)	10.33	(4.07, 26.23)	1.59	(0.95, 2.65)
Normozoospermic	1.09	(0.79, 1.5)	1.12	(0.52, 2.39)	1.01	(0.48, 2.1)	3.53	(1.32, 9.41)	0.92	(0.58, 1.44)
Hyperzoospermic	1.10	(0.88, 1.50)	0.87	(0.43, 1.74)	1.52	(0.97, 2.38)	2.17	(0.94, 5.01)	0.91	(0.66, 1.25)
Model 4: Motility vs. Fertile Controls										
Azoospermia	1.00	(0.48, 2.05)	0.38	(0.04, 3.35)	0.92	(0.2, 4.32)	3.60	(0.43, 29.81)	1.12	(0.44, 2.85)
Q1 (0-49)	1.50	(1.13, 1.99)	1.37	(0.69, 2.71)	1.60	(0.89, 2.89)	4.12	(1.53, 11.09)	1.31	(0.88, 1.94)
Q2 (50-59)	1.31	(0.98, 1.75)	1.18	(0.51, 2.73)	1.24	(0.66, 2.35)	4.23	(1.68, 10.64)	1.14	(0.76, 1.7)
Q3 (60-69)	0.86	(0.61, 1.22)	0.26	(0.06, 1.1)	1.22	(0.63, 2.34)	2.19	(0.74, 6.53)	0.79	(0.49, 1.27)
Q4 (70-100)	0.96	(0.66, 1.4)	0.80	(0.17, 3.86)	1.43	(0.72, 2.85)	2.87	(1.06, 7.79)	0.64	(0.36, 1.14)
Model 5: Vitality vs. Fertile Controls (UU Sample Only)										
Azoospermia	1.28	(0.6, 2.74)	0.50	(0.05, 4.74)	1.55	(0.34, 7.1)	3.92	(0.45, 33.88)	1.28	(0.46, 3.56)
Q1 (0-45)	1.40	(1.02, 1.92)	1.25	(0.6, 2.57)	1.26	(0.63, 2.51)	6.63	(2.45, 17.94)	1.13	(0.71, 1.82)
Q2 (46-55)	1.16	(0.82, 1.64)	1.58	(0.7, 3.6)	0.98	(0.45, 2.14)	1.15	(0.24, 5.56)	1.15	(0.72, 1.83)
Q3 (56-64.4)	0.94	(0.65, 1.36)	0.18	(0.02, 1.36)	0.72	(0.3, 1.72)	2.75	(0.93, 8.19)	1.04	(0.65, 1.65)
Q4 (64.5-94)	0.79	(0.51, 1.22)	*		1.87	(0.97, 3.61)	0.61	(0.07, 4.93)	0.55	(0.28, 1.06)

Model 6: Head Morphology vs. Fertile Controls (UU Sample Only)										
Azoospermia	1.28	(0.6, 2.73)	0.52	(0.05, 4.95)	1.51	(0.33, 6.96)	3.92	(0.44, 34.99)	1.26	(0.45, 3.51)
Q1	1.09	(0.75, 1.58)	1.02	(0.4, 2.58)	0.63	(0.25, 1.63)	4.22	(1.43, 12.5)	1.07	(0.65, 1.77)
Q2	1.06	(0.75, 1.51)	1.28	(0.56, 2.95)	1.07	(0.51, 2.24)	0.99	(0.21, 4.77)	1.03	(0.64, 1.64)
Q3	1.06	(0.74, 1.51)	0.95	(0.38, 2.39)	1.13	(0.54, 2.38)	1.96	(0.51, 7.55)	1.00	(0.62, 1.62)
Q4	0.96	(0.65, 1.41)	0.34	(0.08, 1.48)	1.83	(0.97, 3.44)	2.10	(0.62, 7.14)	0.68	(0.38, 1.23)
Model 7: Tail Morphology vs. Fertile Controls (UU Sample Only)										
Azoospermia	1.28	(0.6, 2.74)	0.52	(0.05, 5.01)	1.53	(0.33, 6.99)	4.15	(0.46, 37.03)	1.26	(0.45, 3.52)
Q1	1.21	(0.86, 1.71)	1.42	(0.67, 2.99)	1.18	(0.56, 2.5)	2.86	(0.83, 9.87)	1.03	(0.62, 1.7)
Q2	1.27	(0.91, 1.77)	1.26	(0.53, 2.99)	1.16	(0.57, 2.36)	5.31	(1.91, 14.77)	1.04	(0.64, 1.67)
Q3	1.01	(0.7, 1.46)	0.44	(0.1, 1.95)	1.61	(0.86, 3.04)	0.48	(0.06, 3.9)	0.96	(0.58, 1.57)
Q4	0.66	(0.42, 1.03)	0.31	(0.07, 1.35)	0.57	(0.2, 1.62)	1.12	(0.23, 5.4)	0.77	(0.44, 1.33)
Model 8: Total Motile Count vs. Fertile Controls (UU Sample Only)										
Azoospermia	1.29	(0.6, 2.75)	0.52	(0.05, 4.99)	1.56	(0.34, 7.17)	3.65	(0.42, 31.76)	1.29	(0.46, 3.59)
Q1	1.58	(1.17, 2.13)	1.16	(0.54, 2.5)	0.99	(0.47, 2.09)	6.85	(2.67, 17.59)	1.56	(1.03, 2.37)
Q2	0.69	(0.46, 1.04)	0.90	(0.38, 2.15)	0.59	(0.23, 1.51)	1.83	(0.47, 7.07)	0.58	(0.32, 1.05)
Q3	1.04	(0.72, 1.51)	0.86	(0.25, 2.93)	1.41	(0.72, 2.75)	1.60	(0.42, 6.16)	0.88	(0.52, 1.5)
Q4	1.02	(0.69, 1.51)	0.45	(0.1, 2.01)	1.97	(1, 3.87)	0.55	(0.07, 4.48)	0.90	(0.53, 1.53)