

Supplementary Table 1. Associations between F2-isoprostane levels and participant characteristics

	Median F2IP	IQR	p value*	Adjusted Geometric Mean†	95% CI	p value*	p linear trend‡
<u>Age</u>							
50-59	1.71	1.20 - 2.40	0.432	1.69	1.50 - 1.90	<0.001	0.675
60-69	1.77	1.31 - 2.44		1.82	1.69 - 1.97		
70 and over	1.72	1.21 - 2.42		1.72	1.59 - 1.86		
<u>Racial Group</u>							
African Amer	1.44	1.15 - 2.00	0.026	1.52	1.30 - 1.78	<0.001	
Caucasian	1.76	1.26 - 2.49		1.79	1.69 - 1.88		
<u>NSAID Use</u>							
No	1.76	1.27 - 2.44	0.271	1.81	1.69 - 1.94	<0.001	
Yes	1.72	1.22 - 2.30		1.69	1.57 - 1.82		
<u>Smoker - ever</u>							
No	1.67	1.15 - 2.39	0.152	1.78	1.69 - 1.88	0.095	
Yes	1.78	1.27 - 2.42		1.73	1.64 - 1.83		
<u>Smoker - current</u>							
No	1.72	1.23 - 2.42	0.251	1.75	1.66 - 1.84	0.517	
Yes	1.97	1.43 - 2.35		1.73	1.62 - 1.84		
<u>BMI</u>							
< 25	2.08	1.36 - 2.89	0.003	1.94	1.75 - 2.17	<0.001	0.757
> 25-30	1.62	1.21 - 2.34		1.68	1.58 - 1.79		
>30	1.77	1.31 - 2.29		1.79	1.65 - 1.93		
<u>Waist-Hip Ratio</u>							
1st Quartile	1.75	1.25 - 2.43	0.794	1.75	1.60 - 1.92	0.999	0.664
2nd Quartile	1.73	1.25 - 2.44		1.76	1.63 - 1.90		
3rd Quartile	1.67	1.21 - 2.26		1.76	1.65 - 1.89		
4th Quartile	1.78	1.26 - 2.43		1.75	1.61- 1.91		
<u>Family History</u>							
No	1.76	1.25 - 2.43	0.619	1.76	1.67 - 1.85	0.426	
Yes	1.62	1.22 - 2.34		1.74	1.65 - 1.84		
<u>Suspicious DRE</u>							
No	1.76	1.23 - 2.43	0.400	1.77	1.68 - 1.87	<0.001	
Yes	1.55	1.33 - 2.02		1.46	1.16 - 1.85		
<u>PSA</u>							
<= 4	1.82	1.45 - 2.55	0.083	1.81	1.64 - 1.99	0.001	0.871
>4 to 10	1.67	1.22 - 2.36		1.76	1.67 - 1.86		
>10	1.82	1.21 - 2.57		1.68	1.54 - 1.84		
<u>TRUS Volume Quartile</u>							
<=32cc	1.90	1.23 - 2.64	0.536	1.88	1.72 - 2.05	<0.001	0.940
>32 to <=43 cc	1.52	1.21 - 2.26		1.68	1.55 - 1.82		
>43 to <=61 cc	1.77	1.32 - 2.28		1.71	1.60 - 1.83		
>61 cc	1.79	1.23 - 2.72		1.76	1.60 - 1.93		

* Kruskal-Wallis test and Wilcoxon rank-sum test.

Barocas DA, et al. Oxidative Stress Measured by Urine F2-Isoprostane Level Is Associated With Prostate Cancer

† Adjusted for diagnosis (benign, HGPIN, cancer), age, race, DRE result, WHR quartile, BMI, NSAID use, prostate volume quartile, PSA category.

‡ p-value for linear regression coefficient

F2IP = Urine F2-isoprostane level, normalized to creatinine; NSAID = non-steroidal anti-inflammatory drug; BMI = body-mass index; DRE = digital rectal exam; PSA = prostate-specific antigen; TRUS = trans-rectal ultrasound.

Supplementary Table 2. Basic multinomial logistic regression predicting HGPIN or prostate cancer on biopsy, stratified by waist-to-hip ratio (WHR) and body-mass index (BMI)

F2IP Quartile	Number	HGPIN			Prostate Cancer		
		OR	95% CI	P value	OR	95% CI	P value
<u>Basic Model</u>							
Q1	118	1			1		
Q2	130	0.78	0.40 – 1.52	0.473	1.00	0.56 – 1.80	0.997
Q3	123	1.50	0.77 – 2.91	0.232	1.40	0.75 – 2.59	0.287
Q4	125	1.78	0.89 – 3.52	0.101	1.99	1.07 – 3.72	0.030
p-trend				0.030			0.015
<u>WHR at or below the median</u>							
Q1	54	1			1		
Q2	66	0.72	0.28 – 1.86	0.497	1.19	0.49 – 2.89	0.703
Q3	56	3.69	1.40 – 9.74	0.008	1.77	0.64 – 4.85	0.268
Q4	63	1.71	0.65 – 4.52	0.278	1.73	0.69 – 4.30	0.239
p-trend				0.025			0.170
<u>WHR above the median</u>							
Q1	63	1			1		
Q2	64	0.90	0.34 – 2.36	0.827	1.02	0.44 – 2.36	0.957
Q3	67	0.49	0.18 – 1.37	0.173	1.15	0.51 – 2.61	0.741
Q4	62	2.36	0.82 – 6.77	0.110	2.77	1.07 – 7.19	0.036
p-trend				0.323			0.054
<u>BMI ≤ 25</u>							
Q1	15	1			1		
Q2	12	0.80	0.40 – 1.57	0.511	1.02	0.56 – 1.88	0.935
Q3	20	1.55	0.73 – 3.27	0.253	1.43	0.72 – 2.86	0.306
Q4	32	1.93	0.64 – 5.79	0.240	2.06	0.77 – 5.50	0.151
p-trend				0.093			0.155
<u>BMI > 25 to 30</u>							
Q1	70	1			1		
Q2	74	0.80	0.41 – 1.57	0.515	1.01	0.55 – 1.85	0.968
Q3	53	1.56	0.75 – 3.25	0.239	1.43	0.73 – 2.83	0.300
Q4	57	1.94	0.70 – 5.37	0.201	2.11	0.84 – 5.30	0.110
p-trend				0.273			0.247
<u>BMI > 30</u>							
Q1	33	1			1		
Q2	44	0.80	0.40 – 1.57	0.511	1.03	0.56 – 1.88	0.935
Q3	50	1.55	0.73 – 3.28	0.251	1.44	0.72 – 2.86	0.303
Q4	36	1.93	0.64 – 5.79	0.242	2.04	0.76 – 5.47	0.156
p-trend				0.274			0.109

All models controlled for age and 5-year age category.

F2IP = Urine F2-isoprostane level, normalized to creatinine; HGPIN = high-grade prostatic intraepithelial neoplasia; WHR = waist-to-hip ratio; BMI = body-mass index.