

Supplemental materials for:

Fedewa S, Gansler T, Smith R, et al. recent patterns in shared decision making for prostate-specific antigen testing in the United States. *Ann Fam Med*. 2018;16(2):139-144.

Supplemental Table 1. Shared Decision Making Questions in the National Health Interview Survey and Categorization, 2010 and 2013

NHIS Questions and Responses	
<i>Questions</i>	<i>Response Options</i>
Among men reporting previous PSA testing, questions were initiated with “Before you had the PSA test did...” Among men reporting no previous PSA testing, the following questions began with “Did”	
1. A doctor EVER talk with you about the advantages of the PSA test?	Yes, No, Refused, don’t know
2. A doctor EVER talk with you about the disadvantages of the PSA test?	Yes, No, Refused, don’t know
3. A doctor EVER tell you that some experts disagree about whether men should have PSA tests?	Yes, No, Refused, don’t know
Mutually Exclusive Shared Decision Making Categories^a	
<i>Categories</i>	<i>Coding</i>
None	Answered No to Questions 1, 2 and 3
Full	Answered Yes to Questions 1, 2, and 3
Advantages Only	Answered Yes to Questions 1 and no to Questions 2 and 3
Advantages and Disadvantages	Answered Yes to Questions 1 and 2, but no to Question 3.
Other	Answered Yes to Questions 1 and 3, but no to Question 2 or Answered Yes to Question 2 and 3, but no to Question 1 or Answered Yes to Question 2 but no to Questions 1 and 3 or

a. Participants who refused or answered “don’t know” on any of the three questions were excluded from the analysis as outlined in Supplemental Figure 1.

Supplemental Table 2. Respondent Characteristics by Survey Year among Men ≥ 50 years, NHIS 2010 and 2015 (n=9,598)^a

	2010		2015		P-value
	N	%	N	%	
Age Category					0.041
50-64 y	2423	66.3	3243	63.1	
65-74 y	914	21.5	1559	23.8	
75+ y	557	12.2	902	13.1	
Race/Ethnicity					0.020
Hispanic	498	9.4	623	10.3	
NH White	2559	77.2	4057	74.3	
NH Black	601	9.2	700	9.7	
Other	236	4.3	324	5.7	
Educational Attainment					0.002
<HS	745	15.9	854	13.1	
HS or GED	1063	26.9	1542	26.0	
Some College	965	24.9	1582	27.8	
College Graduate	1106	32.3	1701	33.1	
Insurance Category					<0.001
Private	1554	45.8	2170	45.5	
Medicaid/State Plan	139	2.7	300	4.3	
Medicare	1358	31.8	2206	34.5	
Military	178	4.5	205	3.5	
Uninsured	448	10.2	387	6.4	
Other	217	4.9	436	5.8	
PCP or Specialist Visit in the Past Year	2926	77.0	4322	77.0	1.000
Family History of PC^a	271	7.5	401	7.6	0.868
PSA Testing History					<0.001
Never	1758	42.7	2657	44.7	
A year or less	1378	38.1	1701	32.1	
>1 and ≤ 2 y	342	8.7	507	8.9	
>2 and ≤ 3 y	157	3.8	272	5.3	
>3 and ≤ 5 y	121	3.1	264	4.3	
>5 y	138	3.5	303	4.7	

Abbreviations: National Health Interview Survey (NHIS), Non-Hispanic (NH) High School (HS), Graduate Equivalent Degree (GED), Primary Care Physician (PCP), Years (Y), PCa (Prostate Cancer)

a. Number of men missing data on the following items are shown in parenthesis: Educational Attainment (40), visiting a primary care physician (3), Place of Birth (2), Family History of PC (315)

b. Brother, son or father diagnosed with prostate cancer.

Supplemental Table 3. Adjusted Prevalence Ratios and 95% CI Predicting Shared Decision Making, NHIS 2010 and 2015

	Any vs none			Advantages vs none			Advantages+ Disadvantages vs none			Full vs none		
<i>Model 1: Among men 50+ who Received PSA Testing in the Past 2 Years for Routine Reasons^a</i>												
Year	aPR		95%CI	aPR		95%CI	aPR		95%CI	aPR		95%CI
2010	1.00			1.00			1.00			1.00		
2015	1.03	0.96	1.10	0.81	0.69	0.95	0.97	0.80	1.18	1.43	1.17	1.75
<i>Model 2: Among men 50+ who Received Routine PSA Testing and Saw a PCP or Specialist in the Past Year^b</i>												
Year	aPR		95%CI	aPR		95%CI	aPR		95%CI	aPR		95%CI
2010	1.00			1.00			1.00			1.00		
2015	1.07	1.00	1.15	0.87	0.73	1.04	0.94	0.76	1.17	1.47	1.19	1.83

Abbreviations: Prostate Specific Antigen (PSA), National Health Interview Survey (NHIS), adjusted Prevalence Ratio (aPR), Confidence Interval (CI), Primary Care Physician (PCP)

- Model 1 adjusts for age, race/ethnicity, educational attainment, insurance type, immigration status, and geographic region. Includes only men 3,299 who received PSA testing for Routine Reasons within the past 2 years. Bold font indicates statistical significance ($p < 0.05$).
- Model 2 adjusts for age, race/ethnicity, educational attainment, insurance type, immigration status, and geographic region. Includes 2,453 men who received routine PSA testing in the past year and saw a primary care physician or specialist. Bold font indicates statistical significance ($p < 0.05$).

Supplemental Table 4. Sociodemographic Factors Associated with Full Shared Decision Making among Men 50 years and Older, NHIS 2010 and 2015

	Among Men with Recent PSA Testing			Among Men with Non-Recent PSA Testing			Among Men without PSA Testing		
	Full SDM vs none			Full SDM vs none			Full SDM vs none		
	aPR	95%CI		aPR	95%CI		aPR	95%CI	
Age									
50-64 years	1.00			1.00			1.00		
65-74 years	1.24	0.88	1.76	0.75	0.49	1.16	1.04	0.53	2.01
75+ years	0.99	0.63	1.54	0.85	0.54	1.33	1.47	0.70	3.10
Race/Ethnicity									
NH White	1.00			1.00			1.00		
Hispanic	1.04	0.65	1.67	1.43	0.81	2.55	2.24	1.09	4.63
Black	1.48	1.07	2.05	1.46	0.99	2.16	1.29	0.58	2.86
Other	1.09	0.61	1.95	1.31	0.72	2.39	1.53	0.52	4.51
Education									
College Graduate	1.00			1.00			1.00		
<HS Diploma	0.45	0.28	0.71	0.74	0.45	1.23	0.29	0.11	0.76
HS or GED	0.62	0.46	0.82	0.81	0.58	1.14	0.40	0.21	0.75
Some college	0.58	0.45	0.76	0.50	0.33	0.76	0.61	0.34	1.08
Insurance									
Private	1.00			1.00			1.00		
Medicaid	0.76	0.32	1.80	0.32	0.12	0.85	0.30	0.09	1.00
Medicare	0.91	0.64	1.30	1.09	0.71	1.66	0.66	0.36	1.22
Military	1.19	0.76	1.86	0.99	0.55	1.80	0.76	0.24	2.45
Uninsured	0.21	0.04	1.05	0.52	0.25	1.05	0.39	0.11	1.34
Other	1.08	0.65	1.79	0.95	0.45	1.99	0.43	0.12	1.54

Abbreviations: adjusted Prevalence Ratio (aPR), Confidence Interval (CI), Shared Decision Making (SDM)

- a. Models adjusts for survey year, age, race/ethnicity, educational attainment, insurance type, immigration status, and geographic region.

Supplemental Table 5. Suggesting PSA Testing among Men 50+ who received PSA Testing in the Past Year, NHIS 2015

	Self	Doctor	Someone Else	P-value	Doctor Suggested vs. Self or Someone Else ^a		
	%	%	%		aPR	95% CI	
TOTAL	11.9	85.0	3.1				
Age Category				<0.001			
50-64yrs	12.7	83.0	4.3		1.00		
65-74 yrs	11.4	86.4	2.2		0.98	0.89	1.09
75+ yrs	9.9	89.3	0.8		1.01	0.90	1.13
Race/Ethnicity				<0.001			
Non-Hispanic White	12.3	84.6	3.2		1.00		
Hispanic	11.6	83.3	5.1		1.01	0.92	1.10
Non-Hispanic Black	6.8	91.0	2.2		1.08	1.03	1.13
Other	17.5	82.2	0.3		0.94	0.81	1.09
Educational Attainment							
<HS Diploma	7.2	90.1	2.7		1.05	0.98	1.13
HS or GED	11.4	84.9	3.7		0.97	0.91	1.04
Some College	12.8	82.8	4.4		0.95	0.90	1.01
College Graduate	12.5	85.4	2.1		1.00		
Insurance Category				0.013			
Private	13.4	82.4	4.2		1.00		
Medicaid/State Plan	16.0	82.1	1.9		0.98	0.82	1.17
Medicare	11.1	87.0	2.0		1.07	0.98	1.16
Military	11.9	83.9	4.2		1.08	0.97	1.20
Uninsured	12.1	79.4	8.5		0.97	0.82	1.15
Other	5.2	93.7	1.1		1.14	1.05	1.23

Abbreviations: adjusted Prevalence Ratio (aPR), Confidence Interval (CI)

- a. Models adjust for age, race/ethnicity, educational attainment, insurance type, immigration status, and geographic region. Bold font indicates statistical significance (p<0.05).

Supplemental Figure 1. Derivation of the PSA Screening Study Population, National Health Interview Survey 2010 and 2015

