

AD\_\_\_\_\_

Award Number: W81XWH-04-1-0026

TITLE: Increasing Early Detection of Prostate Cancer in African American Men through a Culturally Targeted Print Intervention

PRINCIPAL INVESTIGATOR: Hayley Thompson, Ph.D.

CONTRACTING ORGANIZATION: Mount Sinai School of Medicine  
New York, New York 10029-6574

REPORT DATE: June 2008

TYPE OF REPORT: Final

PREPARED FOR: U.S. Army Medical Research and Materiel Command  
Fort Detrick, Maryland 21702-5012

DISTRIBUTION STATEMENT: Approved for Public Release;  
Distribution Unlimited

The views, opinions and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy or decision unless so designated by other documentation.

REPORT DOCUMENTATION PAGE				Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. <b>PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.</b>					
1. REPORT DATE (DD-MM-YYYY) 01-06-2008		2. REPORT TYPE Final		3. DATES COVERED (From - To) 1 Mar 2004 – 31 May 2008	
4. TITLE AND SUBTITLE  Increasing Early Detection of Prostate Cancer in African American Men through a Culturally Targeted Print Intervention				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER W81XWH-04-1-0026	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)  Hayley Thompson, Ph.D.  E-Mail: <a href="mailto:hayley.thompson@mssm.edu">hayley.thompson@mssm.edu</a>				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)  Mount Sinai School of Medicine New York, New York 10029-6574				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Medical Research and Materiel Command Fort Detrick, Maryland 21702-5012				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION / AVAILABILITY STATEMENT Approved for Public Release; Distribution Unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT Prostate cancer (PCa) incidence and mortality is higher among African American (AA) men compared to all other groups. There is compelling evidence that higher mortality is due to the greater likelihood of AA men to be diagnosed with advanced-stage PCa. PCa screening, specifically prostate-specific antigen test (PSA) and digital rectal exam (DRE), has been shown to increase early-stage diagnoses. Although several organizations recommend annual PCa screening starting at age 45 for AA men, screening among AA men is low. Indeed, interventions to increase screening and the early detection of PCa among AA men are critical. Although culturally targeted health interventions have been found to be effective there are no interventions that have systematically addressed culturally relevant factors in PCa screening among AA men. The primary aim of the proposed study is to develop and evaluate the impact of a culturally targeted (CT) print intervention on PCa screening participation among AA 410 men through a randomized controlled trial. The proposed research also seeks to investigate the mediational pathways (i.e., mechanisms) through which the culturally targeted print intervention impacts screening participation.					
15. SUBJECT TERMS Prostate cancer, African-American men, Print Intervention, Education					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT  UU	18. NUMBER OF PAGES  45	19a. NAME OF RESPONSIBLE PERSON USAMRMC
a. REPORT U	b. ABSTRACT U	c. THIS PAGE U			19b. TELEPHONE NUMBER (include area code)

## Table of Contents

<b>Introduction.....</b>	<b>4</b>
<b>Body.....</b>	<b>4</b>
<b>Key Research Accomplishments.....</b>	<b>5</b>
<b>Reportable Outcomes.....</b>	<b>5</b>
<b>Conclusions.....</b>	<b>10</b>
<b>References.....</b>	
<b>Appendices.....</b>	<b>12</b>

## INTRODUCTION

### Original Objectives

The original objectives of the grant are as follows:

- **Objective 1:** To develop and evaluate the impact of a culturally targeted (CT) print intervention on prostate (PCa) screening participation through a randomized controlled trial (RCT) of 410 African American (AA) men, age 45-70, who have not participated in PCa screening (PSA test or DRE) in more than 12 months.
- **Objective 2:** To investigate the mechanisms (mediational pathways) through which the CT print intervention impacts screening participation.

## BODY

### Amendments

Under the original objectives, the project proposed to randomize 20 community sites (AA lodges) to one of two conditions: a CT brochure condition or a generic brochure condition. All participants were to complete a baseline questionnaire assessing background information, past screening participation, potential mediating variables and potential moderating variables. One month after delivery of the print intervention, all participants were to complete a questionnaire assessing changes in potential mediating variables. All participants were to be contacted again 6 months following the intervention to assess PCa screening participation.

During the course of the study, several amendments were approved:

- Eligibility criteria were changed to include AA men between the ages of 40 and 75, who have not had a PSA or DRE in 6 months or more. The previous eligibility criteria included men 45-70 without a PSA or DRE in the past 12 months.
- Methods were changed so that the questionnaires would be self-administered instead of administered in an interview format.
- The recruitment strategy was expanded so that, in addition to the recruitment through community organizations (such as the lodges) we recruited through newspaper advertisements and posted flyers as well as through physician referral. Thus, the unit of randomization is the individual participant rather than the lodge or other organization.
- We modified the study design to control for a possible Hawthorne effect, i.e., the assertion that participant outcomes may be related to some aspect of participation in a research study. We specifically examined the possibility that we may observe increases in PCa screening that are due to the length of the assessments (questionnaires) and the level of demand in completing the assessment rather than the brochure group assignment. We implemented a 2x2 study design in which participants were assigned to either receive a CT or generic brochure and assigned to complete either a long questionnaire (Long Q) or short questionnaire (ShortQ).
- The baseline/Time 1 (T1) assessment, randomization, intervention exposure, and post-intervention/Time 2 (T2) all occurred at one session facilitated by study staff. The 6-month/Time 3 (T3) was mailed to participants and returned by mail when completed.

## KEY RESEARCH ACCOMPLISHMENTS

1. Development of CT prostate cancer brochure, which included conducting four focus groups RCT.
2. Completion of RCT testing the CT brochure versus a generic brochure.

## REPORTABLE OUTCOMES

### Development of the CT Brochure

First, a draft of the CT brochure was developed. This draft was based on an existing “generic” brochure published by the American Urological Association (AUA) titled, “Prostate Cancer Awareness for Men” (see Appendix B). We attempted to keep factual elements of AUA brochure similar but targeted some of the information for AA men. For example, data on incidence and mortality that described these rates in men in the general population were made specific to AA men in the CT brochure. Additionally, all the images in the CT brochure included AA men and additional sections were added that incorporated socioculturally relevant values and concerns. Development of the CT brochures was guided by 4 focus groups in total. The first 2 focus groups were conducted to a) obtain greater insight into factors relevant to prostate cancer screening and AA men and b) obtain feedback on a draft of the CT brochure in comparison the generic brochure. One group included men who were not adherent to either DRE or PSA test in the past year while the second group included adherent men. Characteristics of focus group participants are presented in Table 1. After the first 2 focus groups, the men’s feedback was reviewed and the draft of the CT brochure was revised. The 2 groups of men were invited back to review the revised brochure.

As a result of focus groups, the CT brochure was developed titled, “Protect Your Prostate! What Black Men Need to Know for Good Choices and Good Health.” The CT brochure integrated the following themes: 1) impact of screening on family, 2) medical mistrust and quality of relationship with one’s healthcare provider, 3) competing demands that are barriers to screening; 4) value of preventive care in absence of symptoms, and 4) a focus on aversion to DRE. Also, the CT brochure included prostate cancer screening resources and sites in all boroughs of New York City. The CT brochure is presented in Appendix C. Additionally, features of the CT and generic are presented in Table 2. Compared to the generic brochure, the CT brochure was longer in terms of pages of text (due in part to the inclusion of local resources), more words, fewer images, figures and tables, had a higher Flesch Reading Ease score (indicating that it was easier to read), and was written at a slightly lower grade level.

As part of the RCT (described below), we also administered items to assess the extent to which the brochures were perceived as different. At T2, we administered three scales to assess participant’s perceptions of 1) content that was similar across brochures, 2) content that was specific to the CT brochure by design, and 3) content specific to the generic brochure by design. Results are in Table 3. As expected, there were no significant differences in participants’ perceptions of content that was in fact similar across brochures. However, participants who received the CT brochure reported that the brochure had significantly more CT brochure-specific content compared to those who received the generic brochure. Similarly, those who received the generic brochure reported that it had significantly more generic brochure-specific content than those who received the CT brochure. These findings support the distinctions between the brochures that were intended.

Additionally, we administered a 13-item inventory to evaluate the brochure ( $\alpha=.79$ ). Items asked about several different areas, including how much did brochure reflected one’s culture; the relevance of the brochure to the participant as a Black man; how attractive were the pictures; was the language in brochure easy to understand; how trustworthy was the information in the brochure; and how informed did one feel after reading the brochure. An analysis of variance (ANOVA) showed that participants who received the CT brochure had significantly stronger positive evaluations of that brochure compared to those who received the generic one (intervention mean=3.68, generic mean=3.44;  $p<.0001$ ). Also, men in the CT brochure group were more likely

to rate their brochure as very good or excellent (see Figure 1). Thus, the CT brochure was rated significantly more favorably than the generic brochure.

### **RCT Recruitment, Attrition, and Participant Characteristics**

As described above, participants were recruited via multiple methods. A flowchart describing the recruitment strategy is presented in Figure 2, including the number of men who contacted the study for further information and the proportion who were eligible and completed consent and initial data collection (T1 and T2) as well as other accrual-related events. Figure 2 also shows retention from T2 and T3 which was 6 months later. As described above, men were recruited primarily via mainstream and Black community newspapers as well as referrals. The research coordinator then scheduled men to come to Mount Sinai School of Medicine or convenient community site (e.g., public library) for data collection and intervention exposure. As described above, participants were randomized to 1 of 4 arms using a block randomization method: 1) CT+LongQ, 2) CT+ShortQ, 3) Generic+LongQ, and 4) Generic+ShortQ. Table 4 shows the number of participants randomized to each condition. Participants then completed the T1 survey, received either a CT or generic brochure based on randomization, then completed a T2 survey and were then paid \$50 for participation in all components of the study. Participants were then mailed the T3 survey 6 months later and were asked to return the survey.

As indicated in Figure 2, all baseline analyses were based on 201 men. The sociodemographic characteristics of these 201 men are presented in Table 5. The flowchart in Figure 1 also presents completion of the T3 data collection. Of the 201 men who were retained in baseline analyses, 136 men 68% completed T3. Logistic regression showed that none of the sociodemographic variables was associated with participant attrition. Also, attrition was not associated with randomization such that there were no significant differences in attrition between participants in different study arms.

### **Results of RCT: Hypothesis 1**

The first hypothesis is as follows:

- **Hypothesis 1: Participants in the CT condition will report greater PCa screening participation following that intervention compared to men in the generic intervention condition.**

As indicated above, 68% of men included in baseline analyses completed T3. As part of the T3 survey, participants were asked if they had been exposed to other channels of information of PCa and PCa screening information in the 6 months since the T2 survey. They were asked specifically about brochures other than those that were a part of the study, presentations/lectures, television programs, and periodicals. We then calculated a summary score based on how many of these sources of information men reported. Results showed that 23% of men reported no additional channels, 22% reported exposure to 1 additional channel, 31% reported 2 additional channels, 18% reported 3 additional channels, and 6% reported 4 additional channels. Thus, the majority of men in the study were exposed to at least one other channel of PCa information other than the brochures that were the focus of the present study.

Of the participants who completed T3, 77% reported a physician visit since T2. The following analyses are based on only those who reported such a visit. Thirty percent reported a having a DRE since T2 assessment, 49% reported having a PSA test. Among these men, 23% reported having both. The following analyses examine receipt of DRE and PSA test separately.

First, we examined the association between PSA test and sociodemographic and background variables using chi-square analyses. Results showed that the following sociodemographic and background variables were associated with report of PSA test at T3: income ( $p<.04$ ), insurance status ( $p<.04$ ), physician recommendation since T2 ( $p<.0001$ ) and past PCa screening ( $p<.01$ ). The following variables were associated with report of DRE test at T3: physician recommendation since T2 ( $p<.01$ ).

We then used logistic regression to determine whether brochure group assignment was associated with PCa screening. Results showed that those in the generic brochure group were significantly less likely to report DRE (OR=0.41, CI: 0.170, 0.979,  $p<.05$ ). This difference was not observed between the groups in terms of PSA test. Exposure to other channels of PCa information was not related to either screening test. We then conducted multivariate logistic regression with all covariates in the model. In multivariate analyses, the association between brochure group and DRE was no longer in the marginal range and was not significant. Only physician recommendation remained a significant predictor for DRE such that those with no recommendation were less likely to report a DRE (OR=.090, CI: 0.308, 2.621,  $p<.0001$ ). Interestingly, multivariate logistic regression showed that DRE was a significant independent predictor of physician recommendation for DRE (OR=0.186, CI: 0.058 0.594,  $p<.005$ ), along with report of no past screening (OR=0.170, CI: 0.033, 0.888,  $p<.04$ ) and younger age (OR=0.275, CI: 0.090, 0.845,  $p<.02$ ). These findings suggest that physician recommendation mediates the association between brochure received and report of DRE. Although brochure group was not associated with PSA test, we conducted multivariate analyses to determine which of the other variables were predictors. When all covariates were entered in model, only physician recommendation (OR=0.048, CI: 0.012, 0.196,  $p<.0001$ ) was a significant predictor of PSA test.

We conducted analyses that examined the main effects of brochure group and questionnaire length, as well their interaction, in relation to PCa. None of these was significant and only the above data on the effect of brochure group is not reported here.

## **Results of RCT: Hypothesis 2**

The second hypothesis is as follows:

- **Hypothesis 2: Men in the CT intervention will report greater changes in screening intention, attitudes, group norms, behavioral control, PCa knowledge and perceived PCa risk, and these variables will mediate the impact of the CT intervention on screening participation.**

As reported above, exposure to the CT intervention was not significantly associated with prostate cancer screening at 6-month follow-up. Thus, mediational analyses are not relevant. However, we conducted exploratory analyses to determine the impact of the intervention on proposed mediators.

Assessments relevant to this hypothesis include the following:

- **PSA test attitudes** (8 items;  $\alpha=.77$ ) and **DRE attitudes** (8 items;  $\alpha=.77$ ): These measures were based on participant ratings of PSA test and DRE as healthy, embarrassing, important, worrying, etc. Responses were based on a 5-point Likert-type scale (1=strongly disagree; 5=strongly agree). These items were administered at T1 and T2.
- **Social norms** (2 items): These items assessed participant's beliefs about whether significant others encouraged PCa screening. Social norms are not included in the following analyses because it was only measured at T1.
- **Perceived behavioral control** (PBC) over PSA and DRE (1 item for each screening test): These items asked the participant how easy or difficult would it be for him to have either a PSA test or DRE. Responses were based on a 4-point Likert-type scale. These items were administered at T1 and T2.
- **PSA and DRE intention** (1 item for each screening test): These items asked the participant the extent to which he intended to have a PSA test or a DRE in the next 6-7 months. Responses were based on a 5-point Likert-type scale (1=strongly disagree; 5=strongly agree). These items were administered at T1, T2, and T3.
- **Prostate cancer knowledge**: Knowledge was assessed via 10 items (true/false) that asked about prostate health, prostate cancer, and prostate cancer screening. Five of these items asked about general PCa and screening knowledge and the remaining five were specific to knowledge of PCa risk and PCa screening controversy. All of these items were administered at T1, T2, and T3.
- **Perceived PCa risk**: Participants were asked to rank their risk of PCa on a scale ranging from 0% to 100%. These items were administered at T1 and T2.

Table 6 presents the sample means for PSA attitudes, DRE attitudes, PBC-PSA, PBC DRE, PSA intention, and DRE intention at T1 and T2. We conducted repeated measures ANOVAs in order to examine the change in variables over time and across brochure group (CT vs. Generic) and length of questionnaire (LongQ vs. ShortQ). Results showed main effects for time for PSA attitudes ( $F=14.3$ ,  $p<.0002$ ) such that there was a significant increase in PSA attitudes from T1 to T2 (see Figure 3). However, there were no significant interactions between time, brochure group, and questionnaire length. There was also a main effect for time for DRE attitudes ( $F=13.96$ ,  $p<.0002$ ) as well as a significant three-way interaction for time, brochure, and questionnaire ( $F=6.23$ ,  $p<.01$ ) such that those who completed the short questionnaire within the CT condition reported greater increases in PBC-DRE at T2 than those who completed the short questionnaire in the Generic condition (see Figure 4). There were no significant main effects or interactions for PBC-PSA (see Figure 5). However, the main effect for time was significant for PBC-DRE ( $F=17.31$ ,  $p<.0001$ ) such that PBC-DRE increased over time across the entire sample (see Figure 6).

There was a significant three way interaction for time, brochure group, and questionnaire length for PSA intention such that those who completed the long questionnaire in the CT condition had increased PSA intention at T3 compared to those who completed the long questionnaire in the Generic condition, who had decreased PSA intention ( $F=3.4$ ,  $p<.04$ ) (see Figure 7). A similar three-way interaction was found for DRE intention ( $F=6.82$ ,  $p<.001$ ) as well as a main effect for time ( $F=4.81$ ,  $p<.009$ ) (see Figure 8).

We also examined changes in knowledge as a result of brochure group assignment. T1 knowledge was fairly low (mean=42.4% correct), increased substantially at T2 (mean=68.3% correct), and decreased again at T3 (mean=55.4% correct). The proportion of correct responses for each item across T1, T2, and T3 are presented in Table 7. A repeated measures ANOVA showed that a main effect for time ( $F=104.16$ ,  $P<.0001$ ) but no interactions were significant (see Figure 9). There were similar findings when PCa and screening knowledge and PCa controversy knowledge were examined as separate outcomes.

Finally, we examined perceived risk of prostate cancer. Only participants in the ShortQ group completed this measure. For these analyses, we focused on changing the perception of low perceived PCa risk. As SEER data show that a man's lifetime risk is approximately 15% and African American men are at higher risk, we dichotomized the sample into those with low perceived risk ( $\leq 20\%$ ) and higher perceived risk ( $>20\%$ ). At T1, 32% were in the low perceived PCa risk category and at T2, 27% were in this group. Logistic regression showed that brochure group was not a significant predictor of change from low perceived risk to higher perceived risk.

### **Results of RCT: Exploratory Hypothesis**

The exploratory hypothesis is as follows:

- **Exploratory Hypothesis 1: Culturally relevant variables will moderate the impact of the CT intervention such that men with stronger ethnic identity, medical mistrust, spiritual faith and collectivist attitudes will benefit more from the culturally targeted intervention.**

Assessments relevant to this hypothesis include the following:

- Group-Based Medical Mistrust Scale (12 items;  $\alpha = .88$ );
- Avoidance of Healthcare Scale (4 items;  $\alpha = .73$ );
- Collectivism (6 items;  $\alpha = .87$ );
- Centrality subscale of the Multidimensional Inventory of Black Identity (8 items;  $\alpha = .73$ ).

Spiritual faith was not assessed because focus group feedback suggested that this was not a salient variable.

We assessed the mistrust, healthcare avoidance, collectivism and Black identity as moderators by examining the interaction with each of these variables with brochure group in separate logistic regression analyses. None of these interactions was significant for PSA test or DRE.



## **Other Key Findings**

**1. Testing the Theory of Planned Behavior:** We examined the extent to which the Theory of Planned Behavior (TPB) predicted T3 PCa screening. Separate univariate analyses showed that of the TPB variables (attitudes, social norms, PBC, intention), only social norms was significantly associated with both PSA test ( $p<.002$ ) and DRE ( $p<.02$ ) at T3. Multivariate logistic regression showed that when covariates of T3 PSA test were included in the model (income, insurance status, past screening, and physician recommendation), social norms was marginally significant ( $OR=1.712$ ,  $CI=0.952, 3.079$   $p<.07$ ) while physician recommendation remained a significant predictor ( $OR=0.056$ ,  $CI=0.013, 0.238$ ,  $p<.0001$ ). Multivariate logistic regression also showed that when the covariate of physician recommendation for DRE was included in the model, social norms was marginally significant ( $OR=1.582$ ,  $CI: 0.951, 2.634$ ,  $p<.08$ ) while physician recommendation remained a significant predictor ( $OR=0.086$ ,  $CI: 0.031, 0.241$ ,  $p<.0001$ ) of T3 DRE.

**2. “Physician Explanation of Pros and Cons of PSA/DRE Tests, Prostate Cancer Screening Knowledge & Screening Attitudes among African American Men in NYC”:** This was a presentation made at the 2008 Annual Meeting of the Society of Behavioral Medicine. There is controversy over routine screening of asymptomatic men due to several factors, including lack of conclusive evidence that early detection and treatment reduces mortality; “overdiagnosis” or the detection of disease that would not have caused a clinical problem; false positive PSA results can occur; the benefits of early treatment are unclear and side effects are possible; and the lack of evidence of the superiority of any treatment for localized prostate cancer over another, including watchful waiting. There is consensus that the potential benefits (pros) and risks (cons) of screening should be discussed with men to whom screening is offered. There are only a few studies that report on data on the report of such discussion as well as racial differences in report. The majority of these report on data from 2000 National Health Interview Survey and only focus on men who report PSA test. None focus on discussion of DRE. Also, these studies provide no insight into men’s cognitive responses to such discussions. These analyses, based on T1 data, examined physician explanation of the pros and cons of prostate cancer screening - both PSA test and DRE - in a sample of urban AA men. Specifically, we examined the association between physician explanation and men’s general prostate cancer knowledge. We also explored was the relationship between physician explanation and men’s attitudes toward prostate cancer screening. Results showed that few men reported receiving a comprehensive explanation of the pros and cons of PSA test and DRE. Results also showed that comprehensive explanation is related to general prostate cancer screening knowledge but unrelated to individual knowledge items that are most relevant to the pros and cons of screening: items related to PCa risk and the screening controversy. These may be the items that are most central to fully informed prostate cancer screening decisions. Also, comprehensive explanation was also associated with fewer perceived disadvantages of screening.

**4. “Social Influence and AA Men’s Prostate Cancer Screening Intentions: Application of the Theory of Planned Behavior”:** This was a presentation made at the 2008 Annual Meeting of the Society of Behavioral Medicine. These analyses, based on T1 data, examined the effect of social influence on AA men’s prostate cancer screening intentions in the context of the Theory of Planned Behavior (TPB). As prior work suggests that social influence may be particularly relevant factor in cancer screening, especially among AAs, the current examined social influence (norms) and other TPB variables (attitudes and PBC) as predictors of intention to have a PSA test and DRE. In bivariate analyses, each of the TPB variables was related to intention for both of the screening tests with one exception: attitudes about PSA test were not associated with PSA test intention. Multivariate analyses revealed that intention to have a PSA test was most strongly associated with behavioral control over PSA test and social influence while intention to have a DRE was associated with DRE attitudes and social influence. It is striking that social influence was significantly associated with both types of intention. This finding indicates that subjective norms and approval of significant others as well as encouragement by significant others plays an important role in guiding AA men’s intention to participate in both prostate cancer screening modalities. These results suggest that AA men are highly motivated to act in ways that are consistent with the expectations of family, friends, and community.

## CONCLUSIONS

Key findings and conclusions are as follows:

1. The main objective of this study was to determine the impact of a CT brochure on PCa screening compared to a generic one. However, the majority of participants reported that they were exposed to at least one other channel of PCa and related screening information, with 53% reporting 1-2 additional channels. Although our analyses showed that exposure to other channels of PCa information was not associated with PCa screening, these findings indicate that similar intervention studies should carefully assess additional sources of PCa information and plan to account for these channels in the study design.
2. Results indicated no difference in PSA test T3 between participants in the CT brochure and generic brochure. However, results suggest that participants in the CT brochure group were more likely to have a DRE at T3 and this association was statistically mediated by physician recommendation of DRE. It is possible that physician recommendation is a proxy for discussion of DRE with one's physician and that the CT brochure encouraged greater patient-physician exchange regarding this topic that is associated with physician recommendation and actual DRE.
3. Contrary to hypotheses, there was no difference between the CT brochure and generic brochure in terms of impact on potential mediating variables from T1 to T2. However, there were interesting interaction effects found for both PSA and DRE intention at T3. Participants in the CT condition who completed a long questionnaire reported greater screening intention (both PSA test and DRE) at T3 compared to those in the Generic condition. Also, T3 screening intention among those who completed the long questionnaire in the CT condition was higher than T3 screening intention of those who completed short questionnaires, regardless of condition. This finding suggests that the combination of a CT brochure and a longer assessment a significant effect on screening attention over time. This finding may be due to increased awareness of participating in a research study as well as greater attention to and cognitive processing of PCa screening issues in this condition. This finding lends partial support to the assertion that the length of assessments in intervention studies can have an effect on outcomes beyond that of the intervention itself.

## **Future Directions**

Our findings show that men's knowledge of PCa and the pros and cons related screening is low, even among men who report that their doctor provided a comprehensive explanation of the pros and cons of screening. Furthermore, the CT brochure may have facilitated such explanation by promoting discussion with one's doctor. These data support a new research proposal that will focus on the development and testing of a culturally appropriate intervention to facilitate and improve patient-physician discussions about PCa screening.

Also, as reported above, two presentations based on these data have been made at a professional meeting and there are several manuscripts currently in preparation based on the data, including the following:

- The Effect of Social Influence on African American Men's Prostate Cancer Screening Intentions.
- Physician Explanation of Advantages and Disadvantages of PSA Test and DRE and its Association with Prostate Cancer Screening Knowledge in African American Men in New York City.
- Predictors of Physician Explanation of Advantages and Disadvantages of PSA Test and DRE among African American Men in New York City.
- The Development of a Culturally Targeted Prostate Health Brochure for African American Men.
- The Impact of a Culturally Targeted Prostate Health Brochure on African American Men's Prostate Cancer Screening Decisions.

**REFERENCES:****APPENDICES:**

Appendix A: Tables and Figures

Appendix B: AUA brochure.

Appendix C: CT brochure.

**PRINCIPLE INVESTIGATOR:**

Hayley Thompson, PhD

Adjunct Assistant Professor

Mount Sinai School of Medicine

Program for Cancer Prevention and Control

Department of Oncological Sciences

One Gustave Levy Place, Box 1130

New York, NY 10029-6574

Telephone: 1-212-659-5648

Fax: 1-212-659-5507

Email: [Hayley.thompson@mssm.edu](mailto:Hayley.thompson@mssm.edu)

## Appendix A: Tables and Figures

**Table 1. Focus group participant characteristics.**

	<b>Focus group 1: Adherent men (N=11)</b>	<b>Focus group 2: Non-adherent men (N=10)</b>
<b>Mean age</b>	52.8 years	53.0 years
<b>Vocational/technical school, Bachelor's or graduate degree</b>	73%	50%
<b>Currently unemployed</b>	45%	30%
<b>Income of &lt; \$40K per year</b>	64%	60%
<b>Had health insurance coverage</b>	100%	100%
<b>Had a regular primary care physician</b>	64%	90%

**Table 2. Features of the CT and Generic Brochures.**

	<b>Generic brochure</b>	<b>CT brochure</b>
<b># of pages of text</b>	12	15
<b># of words</b>	2,728	2,777
<b># of images/figures/tables</b>	13	10
<b>Flesch Reading Ease</b>	43.0	59.7
<b>Flesch-Kincaid Grade level</b>	8.5	8.2

**Table 3. Participant perception of brochure content.**

<b>Participants' perceptions of....</b>	<b>Generic brochure</b>	<b>CT brochure</b>	
<b>Content that was similar across brochures</b>	3.61	3.62	n.s.
<b>Content that was specific to CT brochure</b>	2.57	3.36	F=77.95 (1, 198), p<.0001
<b>Content that was specific to generic brochure</b>	3.15	3.36	F=5.28 (1, 198), p<.02

**Table 4. RCT participants across conditions (N=201).**

	<b>CT</b>	<b>Generic</b>
<b>LongQ</b>	N=52	N=52
<b>ShortQ</b>	N=50	N=47



**Table 5. RCT participant characteristics.**

	<b>% total sample</b>
<b>Age (<math>\geq 49</math> yrs)</b>	50
<b>Income (<math>\leq \\$39,999</math>)</b>	65
<b>Education (<math>&lt;</math> Associate's degree)</b>	60
<b>Marital status (married or marriage equivalent)</b>	27
<b>Employment status (currently employed)</b>	49
<b>Health insurance coverage</b>	90
<b>Family history of prostate cancer</b>	12
<b>Regular primary care physician</b>	74
<b>Physician recommendation of PSA test</b>	37
<b>Physician recommendation of DRE</b>	56
<b>Report of past PSA test and/or DRE</b>	67
<b>PSA test in the past 6 months</b>	4
<b>DRE in the past 6 months</b>	3

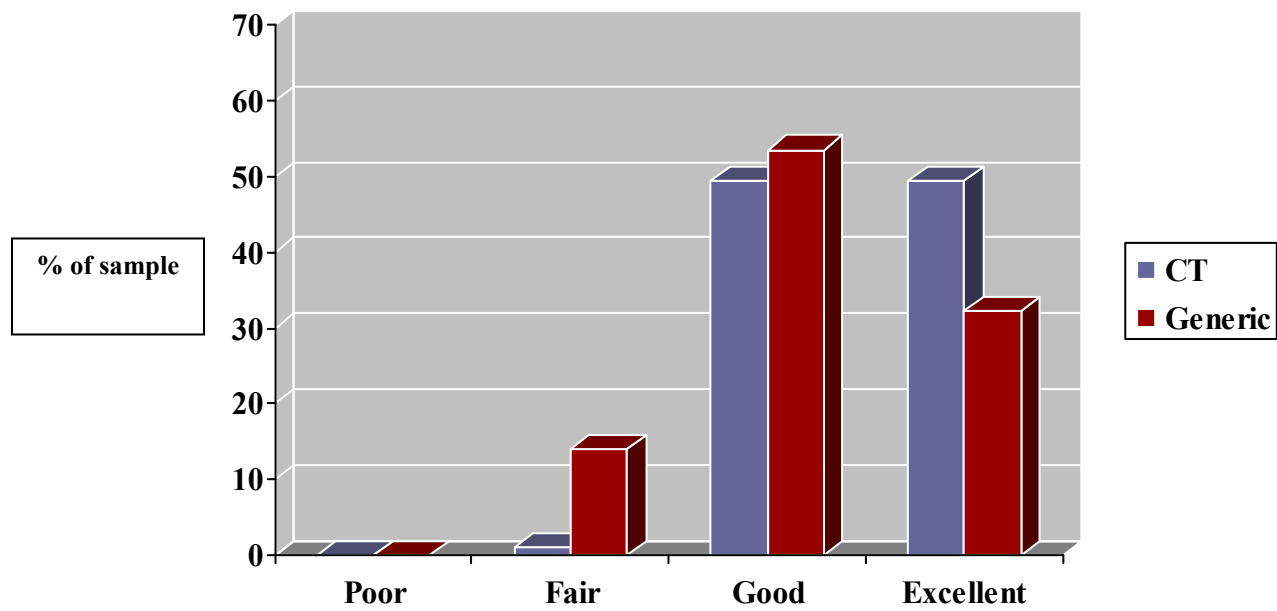
**Table 6. PCa screening attitudes, PBC, and intention means at T1 and T2.**

	<b>T1Mean (SD)</b>	<b>T2 Mean (SD)</b>
<b>PSA attitudes</b>	4.24 (0.54)	4.35 (0.49)
<b>DRE attitudes</b>	4.02 (0.60)	4.12 (0.56)
<b>PBC-PSA</b>	3.37 (0.68)	3.43 (0.62)
<b>PBC-DRE</b>	2.98 (0.79)	3.17 (0.77)
<b>PSA intention</b>	3.56 (1.11)	3.70 (1.25)
<b>DRE intention</b>	3.54 (1.08)	3.66 (1.20)

**Table 7. Proportion of sample with correct response.**

		<b>% of sample correct at T1</b>	<b>% of sample correct at T2</b>	<b>% of sample correct at T3</b>
	<b>General PCa and Screening Knowledge</b>			
1	The prostate produces fluid for semen.	34.8	85.6	40.8
2	A man who has prostate cancer will always have symptoms.	48.3	64.7	42.3
3	Pain or discomfort in your back or pelvic area could be a sign of prostate cancer.	35.8	84.6	42.3
4	Finding prostate cancer at an early stage increases the chance of a cure.	87.6	94.5	66.2
5	If a man has a PSA test, he doesn't need to have a digital rectal exam.	56.2	79.6	47.8
	<b>PCa Risk and Screening Controversy Knowledge</b>			
6	A man is more likely to develop prostate cancer if his father or brother had it.	57.2	75.6	46.3
7	Black men are at higher risk for developing prostate cancer compared to White men.	76.6	90.1	60.7
8	Men with a life expectancy of less than 10 years or less (usually age 70 or older) may not benefit from prostate cancer screening.	7.5	29.9	9.5
9	If a man is diagnosed with prostate cancer, no treatment (also called watchful waiting) may be an option offered by his doctor.	13.4	63.7	14.4
10	All doctors and medical organizations agree that men age 40 and older should be checked for prostate cancer every year.	6.5	14.4	4.0

**Figure 1. Evaluations of CT and generic brochures.**



**Figure 2. Patterns of recruitment and retention.**

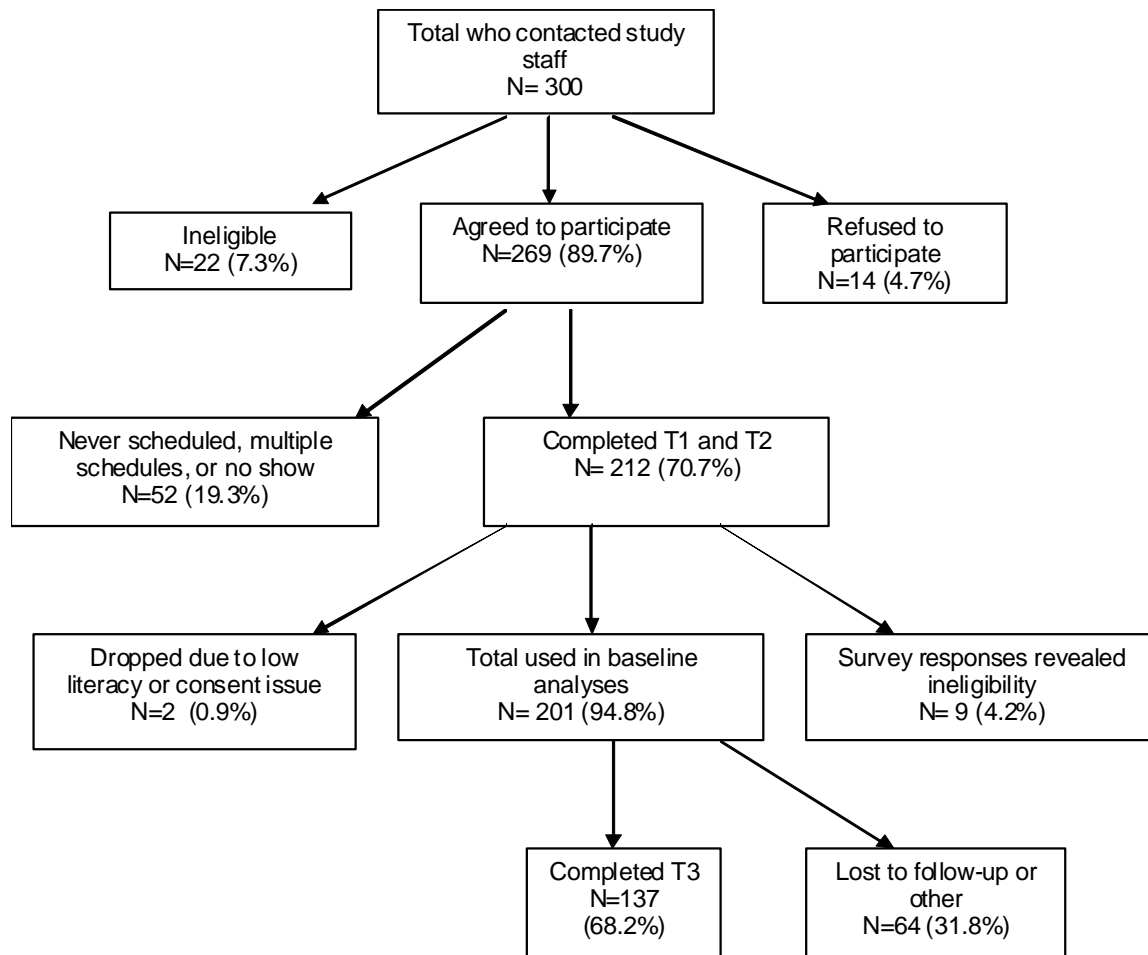


Figure 3. Change in PSA attitudes: Interactions between brochure, questionnaire, and time.

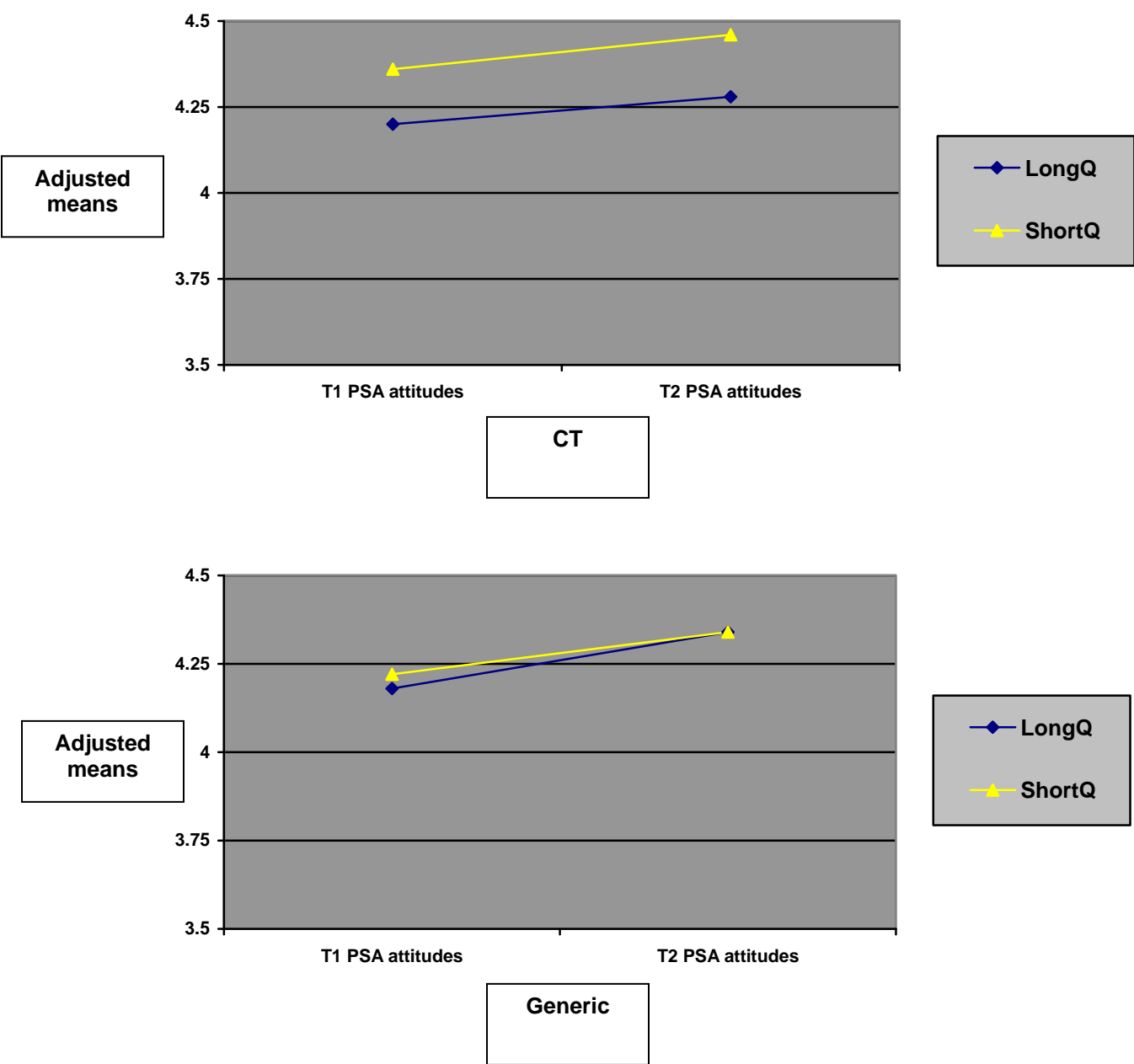


Figure 4. Change in DRE attitudes: Interactions between brochure, questionnaire, and time.

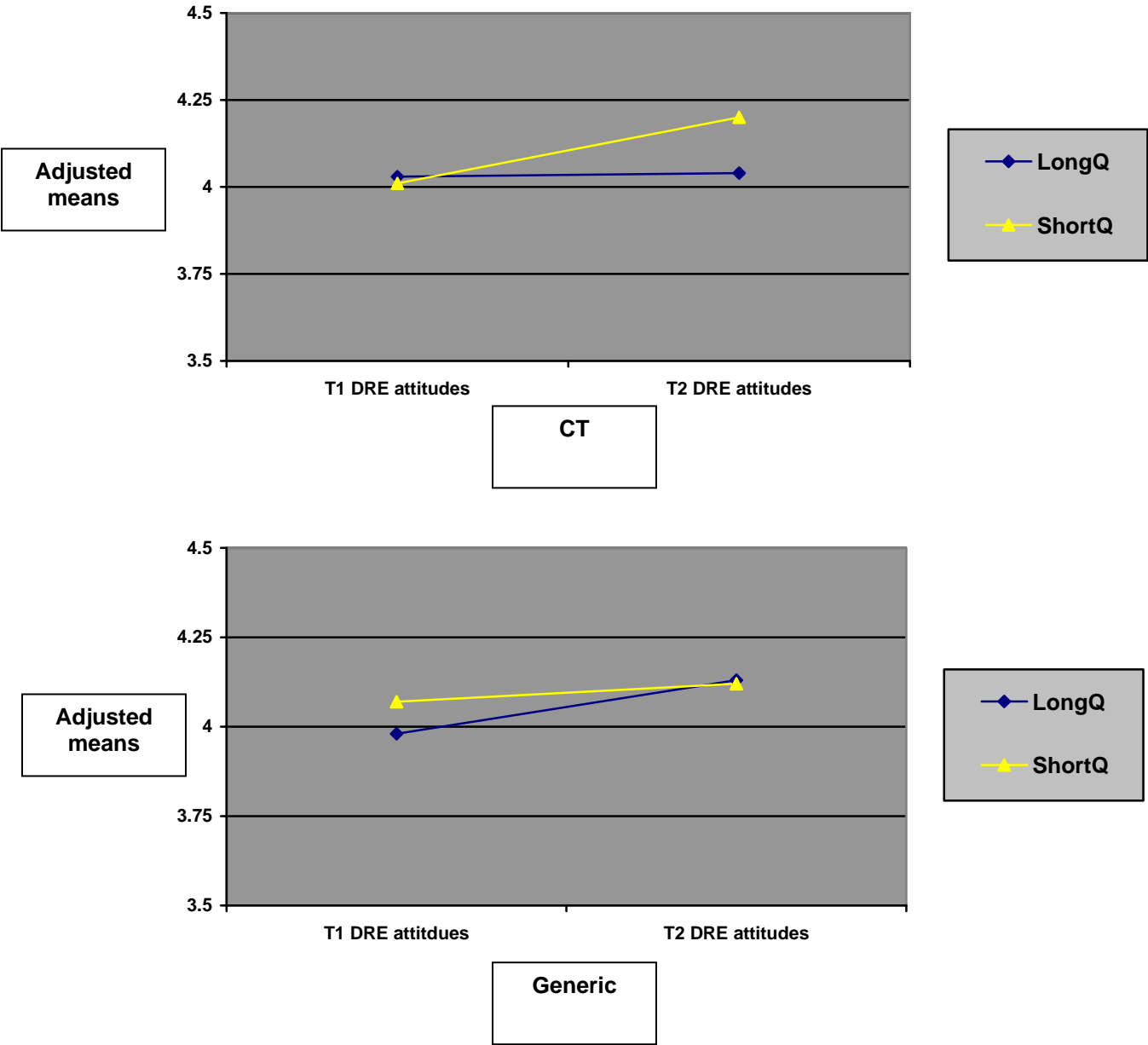


Figure 5. Change in PBC-PSA test: Interactions between brochure, questionnaire, and time.

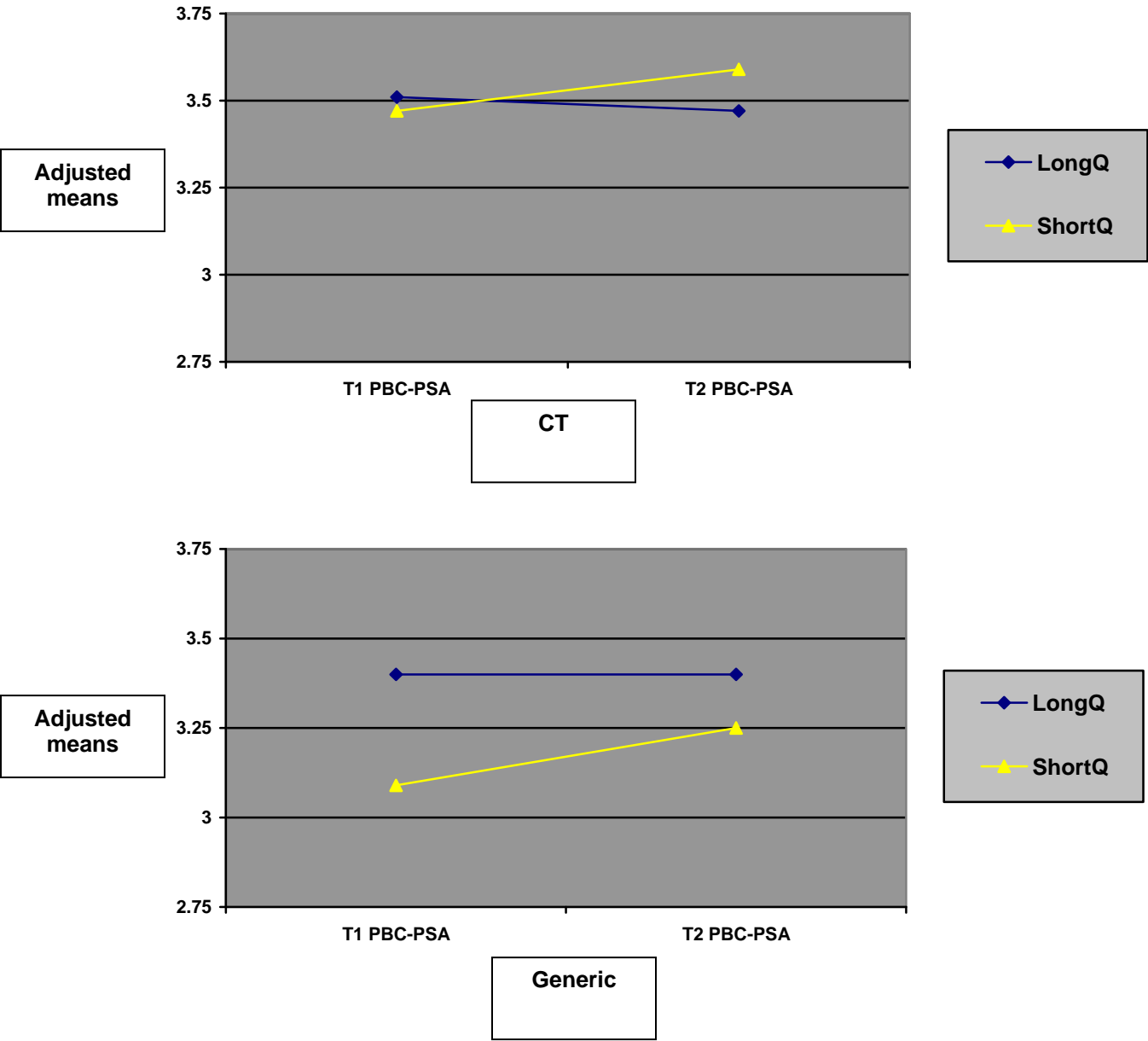




Figure 6. Change in PBC-DRE: Interactions between brochure, questionnaire, and time.

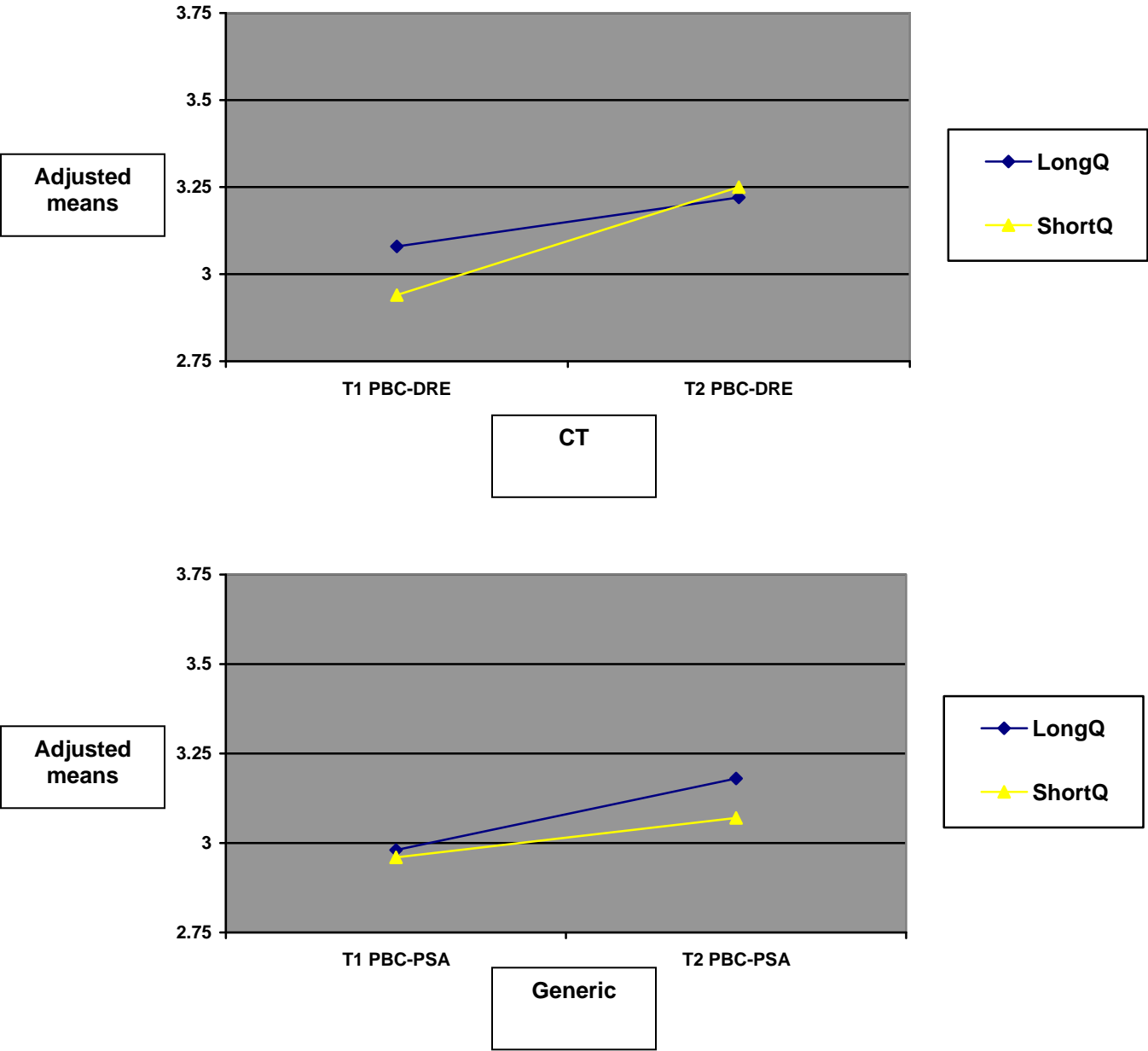


Figure 7. Change in PSA test intention: Interactions between brochure, questionnaire, and time.

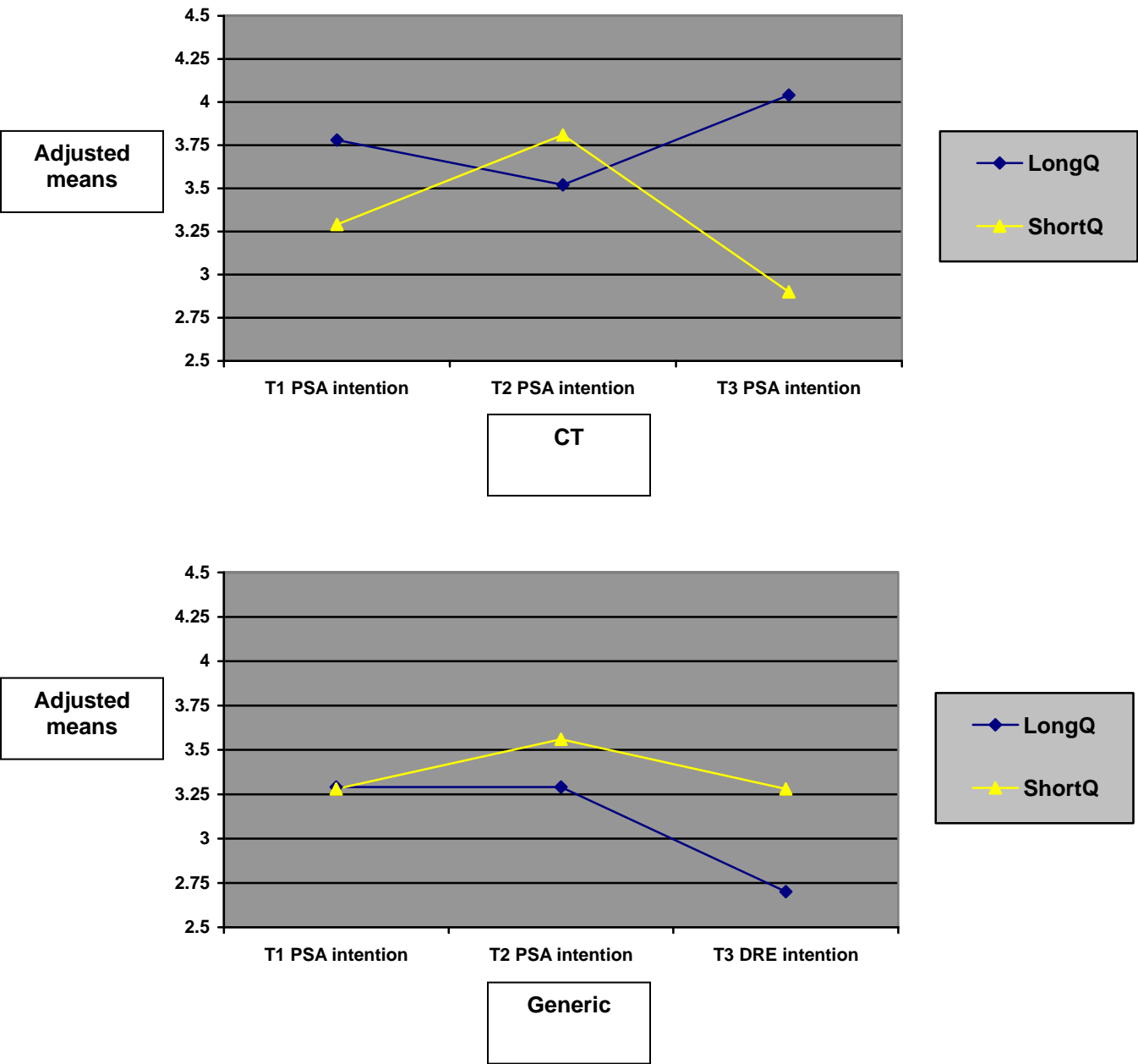


Figure 8. Change in DRE intention over time: Interactions between brochure, questionnaire, and time.

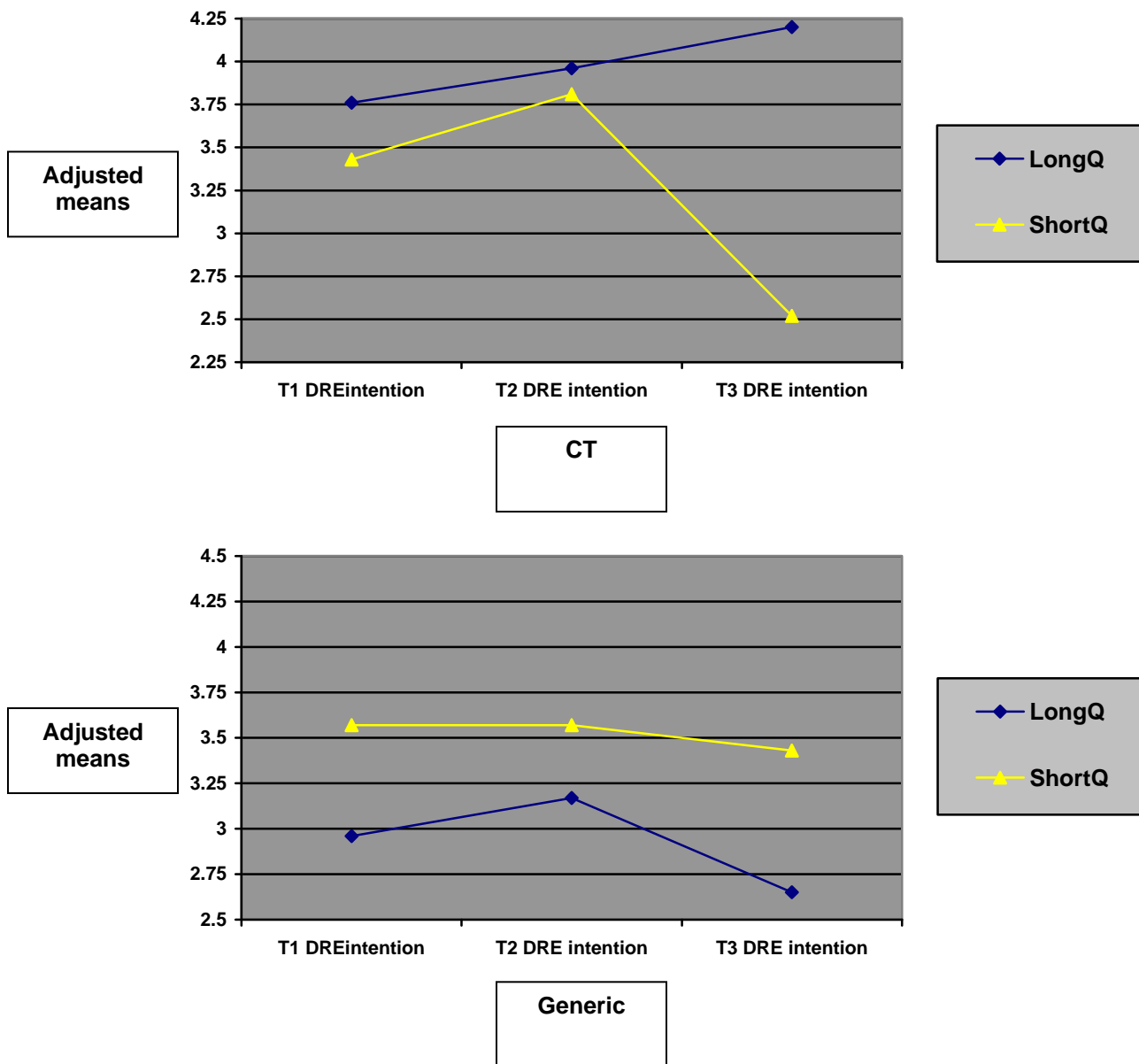
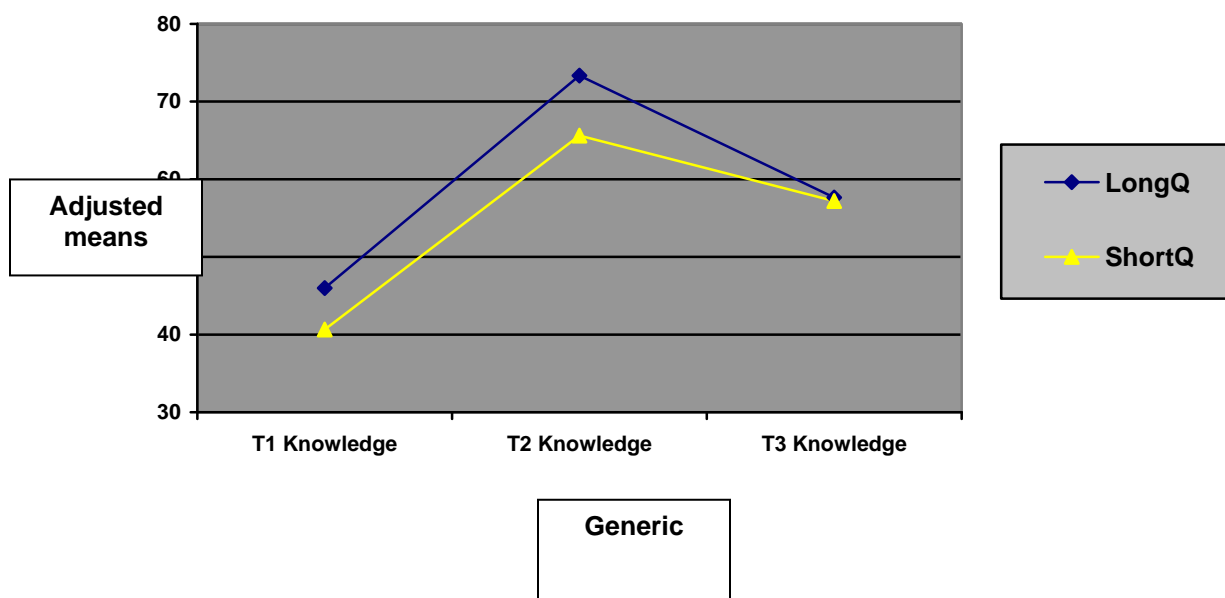
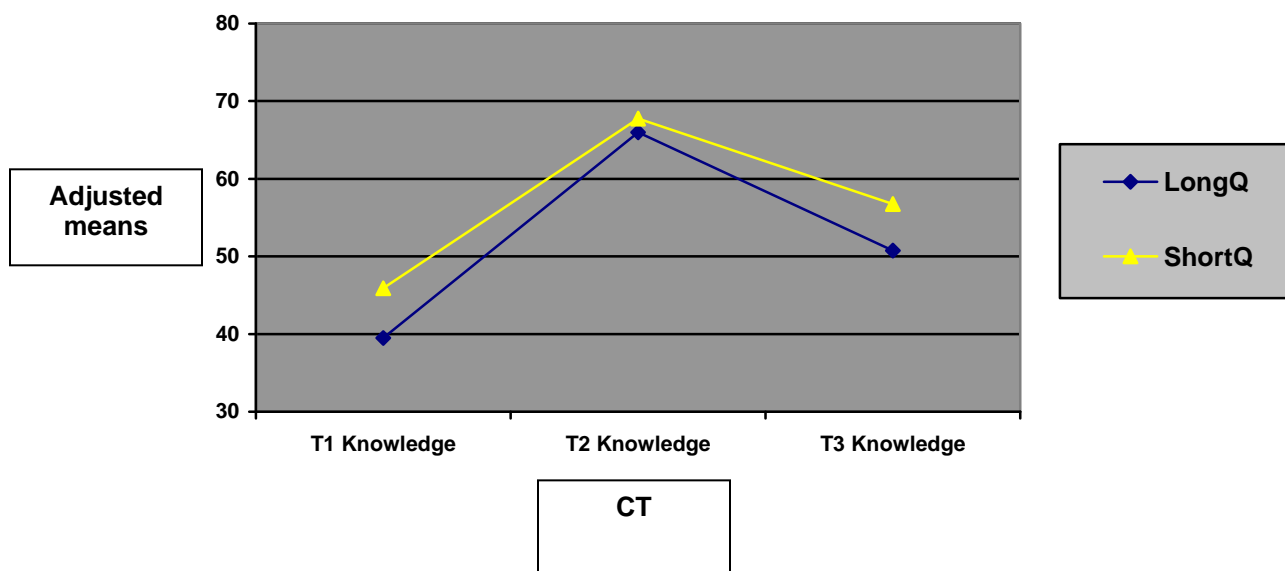


Figure 9. Change in knowledge: Interactions between brochure, questionnaire, and time.



## Appendix B



# Prostate Cancer Awareness for Men



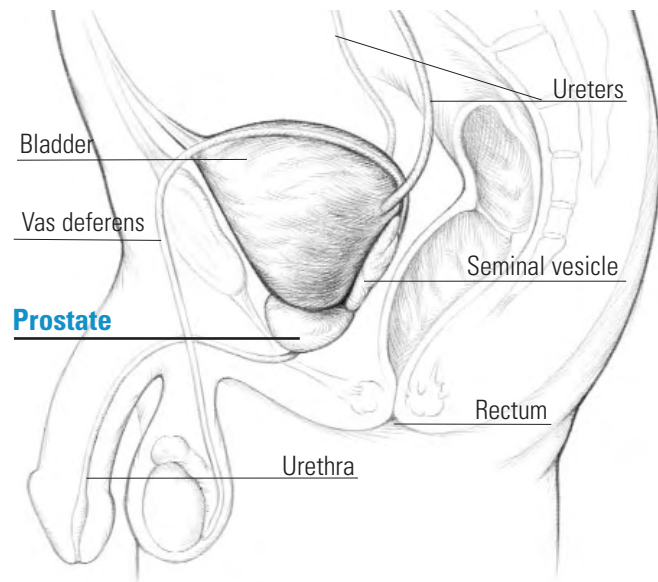
A doctor's guide for patients  
developed by the American  
Urological Association, Inc.®

Based on the PSA  
Best Practice Policy



## WHAT IS THE PROSTATE?

The prostate gland is part of the male reproductive system. It is about the same size and shape as a walnut and weighs only about an ounce. As pictured in the diagram, the prostate is located below the bladder and in front of the rectum. The prostate surrounds a tube called the urethra that carries urine from the bladder out through the penis. The main function of the prostate is to produce fluid for semen.



## WHAT IS PROSTATE CANCER?

There are many different types of cancer. In fact, cancer is really a group of diseases that affects different cells in the body. Prostate cancer is a disease that affects the cells of the prostate. Normally, cells grow and divide in an orderly way. This is how the body grows and stays healthy. Sometimes this normal process of cell growth can go wrong. If the cells continue to divide when they're not supposed to, they can form a tumor. Cancerous prostate tumors can block the flow of urine and, if untreated, can spread to other parts of the body.



## PROSTATE CANCER: THE FACTS

Prostate cancer is one of the most common forms of cancer in men. It is the second leading cause of male cancer deaths in the United States. Most men with prostate cancer do not die from this disease. Yet, prostate cancer still accounts for more than 30,000 American deaths each year.

- **Growth rates for this type of cancer can vary.** Studies have shown that prostate tumors grow at different rates in different people. While some cancers advance rapidly, others grow slowly over many years.
- **The majority of newly diagnosed prostate cancers are localized.** (The tumor growth has not spread beyond the prostate gland.) Given enough time and left untreated, some of these localized tumors can grow in size and spread outside the prostate.
- **Localized prostate cancer usually causes no symptoms.** Prostate cancer usually causes no symptoms until it has spread beyond the prostate. This is one reason why early detection may be important.
- **When the cancer spreads beyond the prostate, it becomes more difficult to manage and the risk of death rises.** It is important to diagnose prostate tumors at an early stage so that they can be watched and treated before the cancer spreads. Although all prostate cancer is potentially life-threatening, in many cases the disease can be cured.

Once prostate cancer is detected, a number of treatment options may be recommended. Each type of treatment poses its own risks and benefits. This booklet is designed to provide information on the early detection and treatment of prostate cancer so that patients, along with their physicians, can make informed, individual decisions about the management of this disease.



## PROSTATE CANCER: THE EARLY DETECTION TOOLS

The goal of early detection is to find the disease in its early stages when treatment is most likely to be effective. There are two widely used tests to aid in the early detection of prostate cancer. They are:

- **PSA** - This simple blood test measures the level of a protein called prostate-specific antigen (PSA). Normally, PSA is found in the blood at very low levels. Elevated PSA readings can be a sign of prostate cancer.
- **DRE** - The digital rectal exam (DRE) involves the physician inserting a lubricated, gloved finger into the rectum to feel the prostate for signs of cancer. This test is simple, safe and only slightly uncomfortable.

The most sensitive method for early detection uses **both** the PSA and DRE tests. Although PSA will detect most high-risk cancers, there are cancers that will be missed by this test and are detected by the DRE. Therefore, using both tests together will give your doctor the most accurate information.



## WHO IS AT RISK FOR PROSTATE CANCER?

All men, of appropriate age, should be counseled with regard to early detection for prostate cancer. The American Urological Association (AUA) encourages physicians to routinely offer prostate cancer testing to men who have an anticipated lifespan of 10 or more years and are:

- over the age of 50 years,
- over the age of 40 years and have a family history of the disease (for example, a father or brother who was diagnosed with prostate cancer), or
- over the age of 40 years and African-American

In addition, there are a number of warning signs that may indicate the presence of prostate cancer. While often due to other

non-cancerous causes, you should consult your physician if you are experiencing any of the following symptoms:

- difficulty with urination,
- frequent trips to the bathroom at night,
- pelvic discomfort,
- weight loss or
- persistent back pain.



## SHOULD YOU BE TESTED FOR PROSTATE CANCER?

Testing for prostate cancer is a personal decision that should be made by each patient with his physician. Patients should be aware of the advantages and disadvantages of early detection and treatment. Some additional information that you should be aware of includes:

- Men with a life expectancy of less than 10 years are unlikely to benefit from early detection and treatment of prostate cancer.
- Treatment of prostate cancer carries a risk of impotence (inability to have an erection) and incontinence (inability to control urine flow from the bladder).
- Studies to evaluate the benefits of early detection are in progress but not complete. Until these studies are completed, the value of early diagnosis is not certain.

You and your doctor should decide together whether you are a good candidate for prostate cancer testing. The AUA believes that monitoring PSA levels as part of your regularly scheduled check-ups offers doctors and patients the chance to establish baseline information, detect problems, and begin treatment before a cancer spreads and comes incurable.





## HOW WILL MY DOCTOR MAKE A DIAGNOSIS OF PROSTATE CANCER?

If your physician finds any warning signs with the PSA or DRE tests and you want further evaluation, you should be referred to a urologist. Urologists are doctors who specialize in treating prostate cancer and other conditions that affect the urinary tract and male reproductive organs.

Your chances of having prostate cancer depend on your age and your PSA level. As a rule, PSA levels below 4.0 ng/ml are considered normal. However, about 20% of prostate cancers are found in men whose PSA level is less than 4.0 ng/ml. Further evaluation should be considered for any level over 4.0 ng/ml or if the DRE is abnormal.

If the PSA or DRE tests suggest the presence of cancer, your urologist will discuss the option of a biopsy. A biopsy is the surgical removal of a small sample of tissue. Biopsies are usually performed in the doctor's office.



## WHEN IS A PROSTATE BIOPSY NEEDED?

Although an abnormal DRE or an elevated PSA may suggest the presence of prostate cancer, a diagnosis of cancer can only be confirmed by a prostate biopsy. A urologist should be consulted for a biopsy when any of the following findings is present:

- The PSA is 4.0 ng/ml or more.
- The PSA level increases significantly from one test to the next.
- The DRE is abnormal.

**Biopsies are minimally invasive procedures.** A small amount of prostate tissue is removed by a needle inserted through the rectum. An ultrasound probe is used to guide the needle. Usually this procedure is performed as an outpatient procedure without anesthesia.

After the prostate tissue is removed, it is examined under the microscope by a pathologist. If a tumor is present, the biopsy report will give the tumor a "grade." The tumor grade indicates how quickly the tumor is likely to grow and spread. Once a cancer is diagnosed, you and your physician can discuss treatment options and choose the type of treatment that is best suited to your needs.

### What Can I Expect After the Biopsy?

After the biopsy you may have side effects such as infection and minor rectal bleeding. Serious complications are unusual. Blood in the stool or urine usually disappears after a few days; blood in the semen usually disappears within a few weeks. Many physicians have their patients take antibiotics for a few days around the time of the biopsy.

If you are taking aspirin, arthritis medicine, or any medicine that thins the blood, you should tell your doctor. Your doctor may decide to discontinue these types of medicine prior to the biopsy. Also, if you have a heart murmur or any artificial or transplanted material in your body (such as a heart valve, hip, graft or other replacement material), you should tell your doctor. Special antibiotics may be used before, during and after the biopsy.



## FACING CANCER: WHAT TO DO IF CANCER IS DIAGNOSED

If you have been diagnosed with prostate cancer, there are a number of routine, pre-treatment tests available to tell if your disease has spread. This information is known as "staging." A thorough physical examination that includes measuring your PSA level can help identify whether you will benefit from these staging tests.

- **Computed Tomography (CT).** A CT scan is not necessary for most patients with newly diagnosed prostate cancer. This test is more useful for patients with a PSA of greater than 25.0 ng/ml.
- **Magnetic Resonance Imaging (MRI).** This test is also not commonly used for patients with newly diagnosed prostate cancer. It is more often used to assess a prostate tumor when the PSA is more than 25.0 ng/ml.
- **Bone Scan.** If your urologist suspects that the cancer has spread, a bone scan may be recommended. This test is generally not necessary

with localized prostate cancers when the PSA level is less than 20.0 ng/ml.

Because your choices about treatments often depend on these findings, it is important for you to know as much as you can about your disease.



## TREATMENT METHODS FOR PROSTATE CANCER

There are a number of treatment options for managing prostate cancer including “watchful waiting,” surgery, radiation therapy or hormone therapy. In some cases, it is useful to combine more than one type of treatment. Work with your doctor to decide which approach is best for you.

- **Surveillance.** (also known as “watchful waiting”) In some men with slow-growing prostate tumors that are found at an early stage, it may not be necessary to start an active treatment. Your physician will follow your progress closely and give you regular exams to check for cancer growth. The exams will indicate if and when active treatment should begin.

*advantage:* This approach has little impact on lifestyle and no side effects.

*disadvantage:* Possibility of the cancer advancing (and becoming incurable).

- **Surgery.** The surgical procedure that removes the entire prostate and the surrounding tissue is called a **radical prostatectomy**. It is done while the patient is under anesthesia. This treatment is recommended if the tumor is localized to the prostate and is used to treat the early stages of prostate cancer. If the cancer is truly localized to the prostate and the prostate is removed, the chance of death from prostate cancer is low. However, if the cancer has spread beyond the prostate, further treatments may be necessary.

*advantage:* The entire prostate (including all the cancer cells in the gland) is removed.

*disadvantage:* The disadvantage of this procedure is the risk of complications (such as impotence or incontinence) resulting from the surgery. Also, there is no guarantee that all the disease is removed.

- **Radiation Therapy.** This is another type of local therapy used to attack cancer cells only in the treated area. For prostate cancer in its early stages, radiation therapy can either be used instead of surgery or it can be used following surgery to destroy cancer cells that may remain. There are two forms of radiation treatment:

**1. External Beam Radiotherapy** treats the prostate with a carefully targeted beam of radiation from a machine. It is well-tolerated by most patients. Side effects vary and include inflammation of the rectum or bladder and impotence. In most cases, side effects are mild and short-lived. Hospitalization is not required. Patients receive treatment once a day, 5 days a week for a 6 to 8 week period.

**2. Brachytherapy** involves the placement of tiny radioactive “seeds” into the prostate. This option requires anesthesia but is generally performed without an overnight stay in the hospital.

*advantage:* Hospitalization is usually not required. Serious side effects are unusual.

*disadvantage:* Because the prostate remains in place, there is the possibility that some cancer cells remain in the body. Some patients may develop impotence.

- **Hormone Therapy.** Prostate cancer depends on male hormones, such as testosterone. Starving the cancer of hormones may slow or stop its growth. Hormone therapy is primarily used to halt or slow the spread of cancer. It does not cure the cancer.

There are two forms of hormone therapy. One approach involves surgically removing the testicles. The other form of hormone therapy involves injections of a drug, luteinizing hormone releasing hormone (LHRH) analog, every 30 to 120 days.

*advantage:* This approach is used to control prostate cancer that is anywhere in the body.

*disadvantage:* Side effects can include hot flashes, impotence, loss of sexual desire, breast swelling and tenderness and brittle bones.

- **Cryosurgery.** This option involves freezing the prostate tissue. The long-term effectiveness of this procedure is unknown.



## FOLLOW-UP CARE

Once you have been treated for prostate cancer, it is important to have regular follow-up exams to check for disease recurrence. Your doctor should suggest an appropriate follow-up schedule. This usually involves a check-up every 6 months for a PSA test and DRE.

The following changes in PSA levels may indicate the need for further treatment:

- PSA levels should decrease and remain at undetectable levels after radical prostatectomy. A detectable and rising PSA level following this procedure usually means the disease has returned.
- PSA levels should fall to a stable and low level after radiation therapy or cryosurgery. A rising PSA level is often associated with disease recurrence.
- The pattern of PSA rise after local therapy for prostate cancer can help distinguish between local and distant recurrence.

Fighting cancer is a challenging ordeal, and it is important that you feel you have support, information and counsel. Do not make a sudden decision. Talk to your physician and make sure that you ask all your questions and understand the answers. It is sometimes helpful to get a second opinion from another doctor. Family and support groups can also provide important information. Seek out other sources of information to help you stay on top of the issue. Gather and study information to make the best treatment choice for you.



## INFORM YOUR DOCTOR

Certain activities, conditions, and substances can also affect PSA levels, including:

- medicines (such as finasteride for male pattern baldness or BPH and other hormones),
- herbal medicines (such as PC-SPES),
- ejaculation within 48 hours of the test,
- testicular surgery – bilateral simple orchiectomy,
- prostate biopsy,
- urinary infection and
- indwelling catheter.

This Doctor's Guide for Patients is intended for patients and lay readers. It is intended to stimulate and facilitate discussion between the patient and doctor regarding the types of treatment described in summary fashion in this brochure. The American Urological Association, Inc. and its Best Practice Policy Committee developed the Prostate Specific Antigen Best Practice Policy, which is considered the basis for this publication. Best Practice Policies are consensus-based documents developed by a multi-disciplinary panel. The full report of the panel provides the physician with a more detailed discussion of treatment options to be considered.

This material may not be reproduced in electronic or other format without written permission of the AUA.

For additional copies of this brochure, physicians may contact:  
American Urological Association, Inc.®  
1000 Corporate Blvd.  
Linthicum, MD 21090  
Phone: 800-RING-AUA



## RESOURCES FOR PATIENTS

The list below offers a good start to finding out more information on prostate cancer. These organizations are some of the most comprehensive cancer patient information and support organizations. Through their educational materials and on their web sites, you may also find other important resources.

### **American Cancer Society**

1599 Clifton Road, N.E.  
Atlanta, GA 30329-4251  
1-800-ACS-2345  
[www.cancer.org](http://www.cancer.org)

### **Cancer Information Service**

National Cancer Institute  
31 Center Drive MSC 2580 Building 31, Room 10A16  
Bethesda, MD 20892-2580  
1-800-4-CANCER  
[www.nci.nih.gov](http://www.nci.nih.gov)

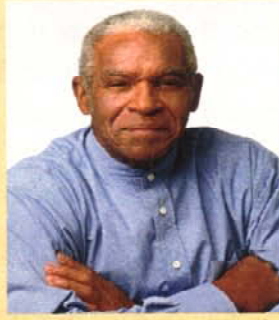
### **US TOO!**

International Prostate Cancer Education & Support Network  
5003 Fairview Avenue  
Downers Grove, IL 60515-5286  
1-800-808-7866  
[www.ustoo.org](http://www.ustoo.org)

### **American Urological Association Foundation**

1-800-RING-AUA  
[www.AUAFoundation.org](http://www.AUAFoundation.org)

## Appendix C



## **Protect Your Prostate!**

### **What Black Men Need to Know for Good Choices and Good Health**

*Includes a bonus section on free and  
low-cost prostate health screenings  
in the New York City area  
starting on page 11!*



This booklet was written to educate Black men about how prostate cancer can affect their lives. In the United States, prostate cancer is the most common cancer in men (not including skin cancer). Prostate cancer is also the second leading cause of cancer death among men.

Among Black men, rates of prostate cancer and death from this disease are higher than any other racial group. However, when prostate cancer is found at an early stage, the chances of being cured are higher. Prostate cancer screening can find prostate cancer at earlier stages.

This booklet will answer many questions Black men have about prostate cancer, such as:

- ♦ What is prostate cancer?
- ♦ What are the facts about Black men and prostate cancer?
- ♦ What are the screening tests for prostate cancer?
- ♦ Who should be screened for prostate cancer?
- ♦ What can a man do to prevent prostate cancer?



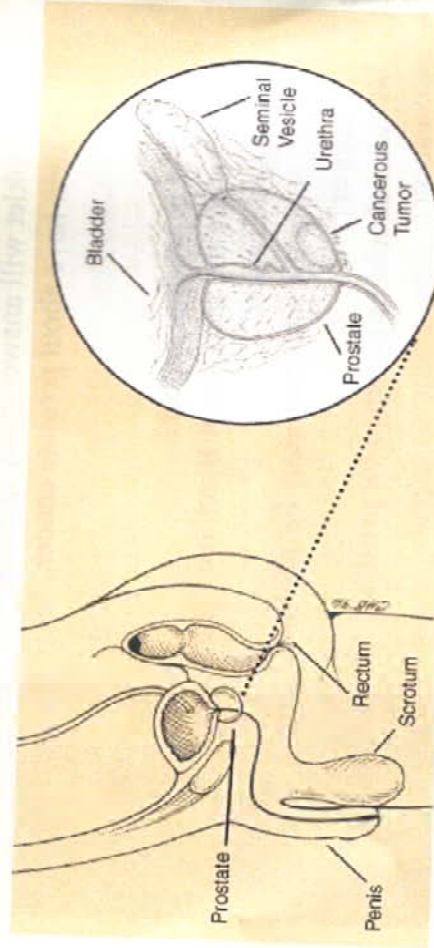
We hope that after reading this booklet, you will learn what you need to know for good choices and good health.

## What is the prostate?

The prostate gland is part of the male reproductive system. It is about the same size and shape as a walnut. As shown in the picture below, the prostate surrounds the urethra, the tube that carries urine from the bladder through the penis. It is located below the bladder and in front of the rectum (the passageway through which stool or waste passes). The prostate produces fluid for semen.

## What are some problems a man can have with his prostate?

When a man is about 45 years of age, the prostate starts to naturally grow. This growth is made up of benign (not cancerous) tissue and is called benign prostatic hyperplasia, or BPH. BPH is not cancer and does not lead to cancer, but it can block the normal flow of urine. When the prostate increases, it squeezes the urethra and makes it difficult to urinate.

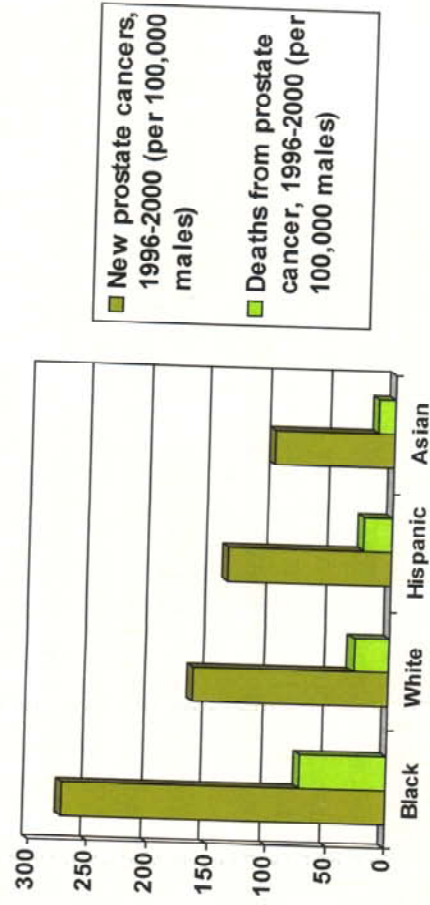


## What is prostate cancer?

Prostate cancer is a disease that affects the cells of the prostate. Normally, cells grow and divide in an orderly manner but sometimes cells can grow out of control. When this happens, tumors can form. Cancerous prostate tumors can block the flow of urine and, if untreated, can spread to other parts of the body.

## What are the facts about Black men and prostate cancer?

Prostate cancer is the second leading cause of male cancer deaths in the United States and accounts for more than 30,000 American deaths every year. Among Black men, rates of prostate cancer are higher than any other racial/ethnic group. As a group, Black men are 60% more likely than White men to get prostate cancer and are more likely to get it at younger ages. Black men are also twice as likely to die from this disease.



Data source: National Cancer Institute, 2003.

## Why are Black men more likely to get prostate cancer and die from it?

It is unclear why Black men are more likely to get prostate cancer compared to other racial and ethnic groups. Higher rates of prostate cancer among Black men may be due to genetics, as well as lifestyle factors, such as diets high in animal fat or red meat. Black men are also more likely to die of prostate cancer. This may be due to the fact that Black men are more likely to be diagnosed with the disease at a late and less curable stage.



## What are the screening tests for prostate cancer?

There are two tests that are widely used for the early detection of prostate cancer.

- ◆ **Prostate Specific Antigen test (also called PSA test)** - This simple blood test measures the level of a protein called prostate-specific antigen (PSA). Normally, PSA is found in the blood at very low levels. In general, a normal PSA level is between 0 and 4. High levels of PSA in the blood can be a sign of prostate cancer. It is recommended that a man have a PSA test every year.

- ◆ **Digital Rectal Exam (also called DRE)** - The digital rectal exam (DRE) involves the doctor inserting a lubricated, gloved finger into the rectum to feel the prostate for signs of cancer. It is recommended that a man have a DRE every year.

## Who should be screened for prostate cancer?

You should talk to your doctor about prostate cancer screening if you are a **Black man and age 45 or older**. Prostate cancer screening is even more important to consider if you have a **family history** of the disease, especially first-degree relatives diagnosed with prostate cancer, such as a father or brother. If you have several first-degree relatives who had prostate cancer at an early age, you could begin testing at age 40.

You should also talk with your doctor if you experience any of the following warning symptoms:

- ◆ Difficulty with urination
- ◆ Frequent trips to the bathroom at night
- ◆ Discomfort
- ◆ Weight loss
- ◆ Persistent back pain.

These problems are not always caused by prostate cancer, but it is a good idea to let your doctor know about them.

## Are you concerned about the digital rectal exam?

Many Black men have concerns about the digital rectal exam (DRE). Does this sound like you?

“It’s not a normal thing for a man to do.”  
“It will hurt.”  
“It will be embarrassing.”

The truth is :

- ◆ DRE is a quick and common exam that your doctor probably gives to many of his or her patients.
- ◆ Most doctors care about giving the DRE in the most respectful way possible.
- ◆ It is usually painless and only a little uncomfortable. Many men who have had a DRE describe it as easy: “in and out.”
- ◆ The most sensitive way to detect prostate cancer at an early stage uses both the PSA and DRE tests. Although PSA will detect most high-risk cancers, it may miss some cancer that can be found by the DRE.

### **Check Yourself: “Do I need to be screened for prostate cancer if I don’t feel sick?”**

- ◆ Some Black men believe that if they don’t feel sick, prostate cancer isn’t something they have to think about now.
- ◆ The fact is that often men with early stage prostate cancer have NO symptoms.





### **Check Yourself: “I don’t have time to get screened for prostate cancer.”**

- Some Black men feel too busy with work and family to make an appointment for prostate cancer screening.
- Sometimes it’s hard to schedule an appointment or get to a doctor. It’s easy to put it off.
- Screening can help you to stay healthy so you can continue to be there for your family.



### **Is there controversy over prostate cancer screening?**

There is controversy over prostate cancer screening because doctors and medical organizations disagree about whether men should be screened on a regular basis. Prostate cancers found through the PSA test are more likely to be early-stage cancers that have not spread outside the prostate. When the cancer spreads outside the prostate, it becomes more difficult to manage and the risk of death rises. However, research studies looking at large numbers of men report different findings with regard to early detection and death from prostate cancer. Some studies have found that early detection of prostate cancer results in fewer deaths overall while other studies have not found that early detection lowers prostate cancer deaths. You should talk to your doctor about this controversy before you are screened for prostate cancer.

### **Do you have a doctor you trust?**

A number of Black men say they have problems with their doctors and other health care providers. Some men feel that doctors don’t take enough time to explain different medical tests and procedures. Others feel that doctors don’t treat them with respect or they don’t trust doctors and hospitals. If you are still looking for a doctor who you feel comfortable with, check the resources at the back of this booklet starting on page 10. These resources may help you find a doctor or a place for prostate care and screening that you trust.

### **What can I expect after I get screened?**

If your doctor finds any warning signs with the PSA or DRE tests, you should be referred to a urologist for further evaluation. Urologists are doctors who specialize in treating prostate cancer and other conditions that affect the urinary tract and male reproductive organs.



### **When is a prostate biopsy needed?**

Although an abnormal DRE or PSA test may suggest the presence of prostate cancer, prostate cancer can only be diagnosed through a prostate biopsy. A biopsy is the removal of a small amount of prostate tissue through surgery. After the prostate tissue is removed, it is examined under a microscope. If there is a cancerous tumor, the biopsy report will give the tumor a “grade.” The tumor grade will show how quickly the tumor may grow and spread. Depending on what diagnosis you receive, you and your doctor can discuss treatment options and choose the type of treatment that is best for you.

### **Check Yourself: “I don’t want to know if I have prostate cancer.”**

- Some Black men are afraid to be screened for prostate cancer because they are afraid of learning they have the disease.
- Knowing that you have prostate cancer can be worrying.
- However, the sooner you know, the more control you have over the situation by making choices about what to do next.





## What are the treatments for prostate cancer?

There are many treatment options for managing prostate cancer. In some cases, it is useful to combine more than one type of treatment.

**1. Watchful waiting (also known as surveillance):** If you have a slow-growing tumor that is found at an early stage, you may not need to start an active treatment. Your doctor will give you regular exams to check for cancer growth. The exams will indicate if and when active treatment should begin.

**2. Surgery:** The surgical removal of the entire prostate is recommended if you have a tumor that is localized to the prostate, and the cancer is in the early stages. If the cancer has spread beyond the prostate, further treatments may be necessary.

**3. Radiation therapy:** Radiation is used to kill cancer cells in the prostate. The radiation is passed through the prostate by a machine, or placed inside the prostate in "seeds" (also called brachytherapy). For prostate cancer in its early stages, radiation therapy can either be used instead of surgery, or it can be used after surgery to destroy cancer cells that may be left behind.

**4. Hormone therapy:** Prostate cancer depends on male hormones, like testosterone, to grow. Hormone therapy involves reducing the amount of male hormones in the body to stop or slow the spread of cancer. Hormone therapy does not cure the cancer.

If you are diagnosed with prostate cancer, you and your doctor should decide together what treatment is best for you.

## Check Yourself: "I'm worried about side effects."

- ♦ In general, prostate cancer screening is not linked to any negative side effects or problems.
- ♦ Some Black men believe that, if they are diagnosed with prostate cancer, the treatment would cause their sex life to suffer or make them unable to hold their urine.
- ♦ The fact is that different treatments have different side effects. Since no one treatment has proven to be the best, a man diagnosed with prostate cancer can choose the treatment best for him with his doctor's help.

## What can a man do to prevent prostate cancer?

So far, little is known about what causes prostate cancer, so it is difficult to say how to prevent it. There are some risk factors that increase the chances that a man will get prostate cancer. A man has little control over some of these factors, such as:

- ♦ Being African American or Black and age 45 or older
- ♦ Having family history of prostate cancer, especially a first-degree relatives (such as a father or brother) who had the disease.

One risk factor that a man does have some control over is diet.

- ♦ Prostate cancer has been found to be related to a diet high in animal fat and red meat.

There have been studies that suggest that certain diets may protect a man against prostate cancer but there is still much that is unknown and research is still being done. Such diets may be those high in:

- ♦ Fruits and vegetables
- ♦ Selenium, an element found in grains, fish and meat
- ♦ Lycopene, a compound in cooked tomato products and watermelon.



## National Resources

### American Cancer Society

1599 Clifton Road, N.E.  
Atlanta, GA 30329-4251  
1-800-ACS-2345

[www.cancer.org](http://www.cancer.org)

Offices in all boroughs of NYC. Call for more details.

### American Foundation for Urologic Disease, Inc.

1000 Corporate Boulevard, Suite 410  
Linthicum, MD 21090  
1-800-828-7866

[www.afud.org](http://www.afud.org)

### Cancer Information Service

National Cancer Institute  
9000 Rockville Pike  
Bethesda, MD 20892  
1-800-4-CANCER  
[www.cancer.gov](http://www.cancer.gov)

### Centers for Disease Control and Prevention

1600 Clifton Road  
Atlanta, GA 30333  
1-800-311-3435  
[www.cdc.gov](http://www.cdc.gov)

### National Prostate Cancer Coalition

1154 Fifteenth Street, NW  
Washington, DC 20005  
1-800-245-9455  
[www.pcacoalition.org](http://www.pcacoalition.org)

### US TOO!

5003 Fairview Avenue  
Downers Grove, IL 60515  
PCa Support Hotline: 1-800-808-7866  
[www.ustoo.com](http://www.ustoo.com)

## Local Resources for Prostate Cancer Screening

Last updated July 2005

**\*Always call for more information\***

### MANHATTAN

1. Mount Sinai School of Medicine & Settlement Health  
212 East 106<sup>th</sup> Street (212-241-0045)  
Prostate cancer education and screening offered every second Thursday of each month at 5:30 PM.
2. Harlem Hospital Center  
530 Lenox Avenue (212-939-8051)  
Free prostate screening offered every Thursday at noon and Saturday at 9 AM.
4. Saint Vincent's Comprehensive Cancer Center  
325 West 15<sup>th</sup> Street (212-604-6000 )  
Prostate cancer education and screening offered during the month of June at this location and other locations throughout the city. For those locations call 1-800-CARE-421.
5. New York Presbyterian Hospital-Columbia Presbyterian  
Milstein Hospital Building  
177 Fort Washington Avenue (212-305-2543)  
Free prostate cancer screening available.
6. New York University Medical Center  
550 First Avenue (212-263-2266)  
Free prostate cancer screening available.
7. New York University Clinic at Bellevue Hospital  
462 First Ave. and 27th St. (212-562-3000)  
Prostate cancer screening available, free or for a sliding scale fee.



8. Harlem Week Street Fair  
212-862-8477 or [www.harlemdiscover.com](http://www.harlemdiscover.com).  
Prostate cancer screening offered during street fair in late August.  
Go to website or call for details.

9. Ralph Lauren Center for Cancer Care and Prevention  
1919 Madison Ave. (212-987-1777)  
Free prostate cancer screening available.

## BRONX

10. East Tremont Medical Center  
930 East Tremont Avenue (718-620-6068)  
Prostate cancer screening available with doctor referral only and patient must have insurance. If patient has no insurance, screening costs \$75.
11. Lincoln Medical and Mental Health Center  
234 East 149<sup>th</sup> Street--9<sup>th</sup> floor (718-579-5550 or 718-579-5000)  
Free prostate cancer screening offered every Tuesday from 1-3 PM.
12. Montefiore Medical Center  
111 East 210<sup>th</sup> Street (718-920-5402)  
Free prostate cancer screening available.

## BROOKLYN

13. SUNY Downstate Medical Center  
University Hospital of Brooklyn  
450 Clarkson Avenue (718-270-3739 or 718-270-7673)  
Free prostate cancer screening available. Call for details.
14. New York Methodist Hospital  
506 6<sup>th</sup> Street (718-780-5367)  
Prostate cancer screening available with a doctor's referral and with either insurance or Medicaid. Free screening offered during September.

15. Bedford Stuyvesant Family Health Center  
1413 Fulton Street (718-636-4500)  
Free prostate cancer screening offered every other Saturday from 8:30-12:30 PM.

16. Woodhull Medical and Mental Health Center  
760 Broadway (718-963-8000)  
Prostate cancer screening is available with a doctor's referral.  
Free screening is offered in September.

## QUEENS

17. Addabbo Community Health  
67-10 Rockaway Beach Boulevard, Arverne (718-945-7150)  
Prostate cancer screening available for a sliding scale fee and actual screening is performed at other locations in the area.
18. Long Island Jewish Medical Center  
270-05 76<sup>th</sup> Avenue, New Hyde Park (516-465-2500)  
Free prostate cancer screening offered during monthly health fairs.
19. North Shore University Hospital at Forest Hills  
102-01 66<sup>th</sup> Road, Forest Hills (718-507-4400)  
Prostate cancer screening available with doctor's referral.
20. Park Health Center  
131-24 Rockaway Boulevard, South Ozone Park (718-659-7166)  
Free DRE exam is available. PSA test is \$50. Most insurances accepted. Prostate cancer screening is offered on Monday and Thursday.
21. Elmhurst Hospital Center  
79-01 Broadway, Elmhurst (718-334-4000)  
Free prostate cancer screening offered during September.
22. Queens Hospital Center Urology Clinic  
82-68 164<sup>th</sup> St., Jamaica (718-883-3142)  
Prostate cancer screening offered every Tuesday for a sliding scale fee.