IMPROVING RECRUITMENT OF AFRICAN AMERICAN MALES TO PROSTATE CANCER SCREENINGS

by

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# Table of Content

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>2</td>
</tr>
<tr>
<td>Prostate Cancer in African American Men: A Public Health Concern</td>
<td>3</td>
</tr>
<tr>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Pros and cons of prostate cancer screening</td>
<td>4</td>
</tr>
<tr>
<td>Lay Health Advisor model</td>
<td>8</td>
</tr>
<tr>
<td>Recruitment Efforts in other NC counties</td>
<td>11</td>
</tr>
<tr>
<td>Improving African American Participation in Craven County</td>
<td>12</td>
</tr>
<tr>
<td>Discussion</td>
<td>22</td>
</tr>
<tr>
<td>Conclusion</td>
<td>25</td>
</tr>
<tr>
<td>References</td>
<td>26</td>
</tr>
</tbody>
</table>
Abstract:

African American men have the highest rate of prostate cancer. Further, African American men are more likely to be diagnosed with prostate cancer in a more advanced stage of the disease and are more likely to die of it than any other racial or ethnic group in the US. Although prostate screening is controversial, data suggests that for the African American population early detection may help eliminate or reduce the disparity between racial groups. Poor African American participation at prostate cancer screening events is a significant barrier to early detection. Several approaches to recruiting African Americans have been documented in the literature including the lay health educator model and education within a faith based setting. This paper reviews current issues surrounding health disparities related to prostate cancer; issues related to prostate cancer screening; the concept of lay health advisors; and education in the African American church as an avenue to recruit African Americans to prostate cancer screenings. Craven County’s unique experience in increasing African American participation in a local prostate cancer screening program over a recent three-year period will be presented. Successes and failures of the program and other lessons learned in using concepts from the lay health advisor model within the African American churches to educate and recruit participants for the screening will be discussed.
Recruitment to Prostate Cancer Screenings

Prostate Cancer in African American Men: A Public Health Concern

In 2003, more than 1.3 million new cancer cases are expected to be diagnosed with 20,900 attributed to Prostate cancer. It is estimated that prostate cancer will claim the lives of 28,900 men in the year 2003. Prostate cancer is the leading cancer diagnosed among men in the United States and is the second leading cause of cancer death in men. These rates are especially alarming among African American men where prostate cancer rates are more than twice as high as those for white men. Incidence rates for African American men are the highest in the world (American Cancer Society).

Researchers estimate that in North Carolina 6,800 new cases of prostate cancer will be diagnosed in 2003 and approximately 900 men in NC will die from prostate cancer in 2003. The North Carolina 2001 mortality rate for prostate cancer was 39.9 per 100,000 overall (American Cancer Society). The rate for African American men was significantly higher at 84.6 per 100,000. The incidence of prostate cancer in NC is also significantly higher for African American men at 275.3 per 100,000 from 1992 to 1999 verses 172.9 per 100,000 in white men (North Carolina State Center for Health Statistics).

In Craven County, the incidence of prostate cancer from 1995-1999 was 221.1 per 100,000, which is the highest rate out of the 100 counties in North Carolina. The mortality rate for prostate cancer in Craven County for 1999-2000 was 31.2 per 100,000 in white men verses 56.2 per 100,000 in minority men. Statistics to determine the difference in incidence based upon race were not available (North Carolina State Center for Health Statistics). While the incidence of prostate cancer in Craven County is significantly higher than the state and national averages,
Recruitment to Prostate Cancer Screenings

this phenomenon may be attributed to a greater emphasis on the importance of prostate cancer screening (Jacoben et al., 1995).

The morbidity, mortality and the associated burden of suffering imposed by prostate cancer are great. There is currently no way to prevent prostate cancer; race and age are the only clearly identified risk factors (Healthy People 2010). The magnitude of the impact on public health from prostate cancer has spurred extensive efforts to provide secondary prevention through population screening (Powell, 1997; Jacoben, 1995). The death rate from prostate cancer has been decreasing and men are being diagnosed earlier (American Cancer Society). In fact, death rates have decreased 2.1% per year since 1991 (Healthy People 2010). The American Cancer Society website’s Key Statistics about Prostate Cancer states that there is a relative survival rate of 100% for prostate cancers diagnosed while they are still localized and have not spread beyond the surrounding tissues or lymph nodes. The site compares this with a 34% relative survival rate when the prostate cancer is found after it has spread to distant parts of the body. The goal of early detection is to find the disease in its early stages when treatment is most likely to be effective (American Cancer Society).

The Prostate Cancer Screening can be conducted on a one-to-one basis in a clinic or through the use of mass or population screening programs organized by various health entities. Screening typically involves either a prostate specific antigen (PSA) test alone or PSA testing combined with digital rectal examination (DRE). The American Cancer Society recommends that both a PSA and a DRE be offered at prostate cancer screenings (American Cancer Society). Using PSA testing and DRE exams in combination is seen as an worthy cancer-screening tool having better sensitivity and positive predictive value than the combination of mammography
Recruitment to Prostate Cancer Screenings

and breast exam (Canto and Slawin, 2002). The digital rectal exam requires a physician to insert a lubricated gloved finger into the rectum to feel the back portion of the prostate gland for irregular or abnormally firm areas. The prostate specific antigen blood test measures a protein made by prostate cells. PSA levels under 4ng/ml are considered normal. Levels greater than 10ng/ml are considered high. Results between 4 and 10 are considered borderline. The greater the PSA level, the more likely a prostate problem is present (American Cancer Society).

Early Prostate Cancer detection is currently a hotly debated issue with many health organizations recommending against routine prostate cancer screening (Zoorb, Anderson, Cafalu and Sidani, 2001). The United States Preventive Service Task Force (USPSTF) argues against prostate cancer screening (United States Preventive Service Task Force). The American College of Preventive Medicine recommends that men age 50 or greater with a life expectancy of greater than 10 years should be given information about the potential benefits and harms of screening and be allowed to make an informed decision (Ferrini and Woolf, 2003). Arguments against routine screening include the fact that prostate cancer is typically a slow growing cancer and most men will die from other diseases before they will die from prostate cancer. They also argue that increased detection may reduce quality of life due to complications of treatment such as impotence and incontinence (Canto and Slawin, 2002). Opponents also argue that the cost of mass screening is high and note the lack of definitive evidence that early detection directly reduces the mortality rate (American Cancer Society).

Proponents see early detection as the "closest thing we currently have to cure prostate cancer and saves lives" (American Cancer Society). The American Cancer Society continues to support prostate cancer screening as an important means of early detection. The American
Recruitment to Prostate Cancer Screenings

The Cancer Society recommends that all men who have a life expectancy of at least 10 years should undergo a prostate cancer screening by the age of 50 and that men who are in high-risk groups such as African Americans should begin screening at age 45 (American Cancer Society). The American Urological Association supports similar recommendations (American Urological Association).

Even though considerable controversy over the potential benefits and harm of prostate cancer screening continues, researchers suggest reduction in mortality is associated with early diagnosis and treatment. Early detection is also seen as a necessary step to help reduce the numbers of African American men diagnosed with advanced disease (Powell, 1997). Use of intensified screening in high-risk populations such as African Americans has been suggested to be even more important since African American men are at higher risk for prostate cancer at an earlier age and may have a more aggressive form of cancer (Gelfand, Parzuchowshi, Cort, and Powell, 1995; Demark-Wahnefried et al., 1995). In an article published in the April 2001 Prostate Forum, the National Prostate Cancer Coalition’s newsletter, Myers argues for prostate cancer screening by contending that it will detect life-threatening prostate cancers at a state when they can be cured.

Despite the need for increased screening in African American men, much of the literature discusses the poor participation rates to prostate cancer screenings among this target population, particularly in the southeastern region of the country (Gelfand et al., 1995; Demark-Wahnefried et al., 1995). For example, a well-known multicultural clinical trial reported that only 2.9% of the 6630 participants were African American (Catalona et al., 1994). Researchers agree that even the best cancer screening tests have no value when the target population, those with the
Recruitment to Prostate Cancer Screenings

highest incidence and mortality rates, do not seek or cannot access testing (Tingen, Weinrich, Heydt, Boyd, and Weinrich, 1998).

Barriers that have been linked to poor participation rates in prostate cancer screening include: fear of cancer, lack of trust in the predominantly white medical community, health beliefs, economic limitations, low education levels, poor access to health care, and lack of awareness of the need for early detection (Powell, 1997). In a recent study that applied the Health Belief Model in determining perception of prostate cancer and screening methods, researchers found that African American men in the study did not perceive themselves susceptible to prostate cancer and as a group were not aware of the risk factors associated with prostate cancer (Clarke-Tasker and Wade, 2002). Price, Colvin, and Smith (1993) found that some African American men perceived having prostate cancer as a death sentence. In a study designed to evaluate the effectiveness of a prostate cancer education and screening program which targeted African American and low-income men, researchers found that African American men were more likely to delay seeking diagnosis and more likely to believe "pain" was the first symptom of cancer (Barber et al., 1998). Damark-Walniefried et al. (1995) reviewed survey responses administered to men participating in prostate cancer screening events at nine major sites in the southeast and found that access to screening and knowledge of risk factors were identified as barriers to early detection among African American men. This was echoed in a very recent study where Weinrich, Weinrich, Priest and Fodi (2003) found that economic cost and lack of knowledge of prostate cancer screening created significant barriers for African Americans. Efforts to increase African American participation in prostate cancer screening
Recruitment to Prostate Cancer Screenings

programs should focus on those that overcome identified barriers of cost, knowledge and access (Barber et al., 1998).

The Lay Health Advisor (LHA) model is a well-documented approach to increased promotion of health issues to the African American population with their use having gained increased recognition in the United States over the last 20 years. (Earp and Flax, 1998; Quinn and McNabb, 2001). "The LHA concept in the United States was born out of the belief that every community has people to whom others turn naturally for advice, help, and support" (Jackson E, and Parks C., 1997, p.419). The lay health advisor is an indigenous person, or natural helper, that is seen as a trusted individual in their community that is tapped to receive specialized training to address health and other issues (Earp et al., 1997). LHA programs build on the informal lay helping systems that are internal to communities (Earp et al, 1997). Lay health advisors are more likely to be trusted by African Americans in addressing susceptibility and severity of health issues compared to an outsider who is often from the predominately white medical community (Jackson and Parks, 1997).

The first fully documented lay health advisors program in the United States was the Community Health Education Program (CHEP), which was initiated at Duke University Medical Center in 1973. This program provided a basis for the recruitment and training of future lay health advisor programs and established differences between lay health advisors and other community health workers. Lay health advisors share the same social, cultural, ethnic, environmental, and communication values and beliefs as the target population and are not simply individuals that serve only as links between health care consumers and providers (Jackson and Parks, 1997). Health professionals must recognize the unique characteristics required when
selecting lay health advisors and the importance of the recruitment and the training processes. Even so, recruiting and educating lay health advisors that are capable of becoming effective change agents can be a complex and difficult undertaking requiring considerable time, energy and resources to initiate and sustain (Earp et al., 1997). Earp and colleagues noted that little information is available to speak to the challenges that may arise as lay health advisor interventions evolve. Lay health advisor programs may also have a wide range of variation depending on the problems they are intended to address and the resources available to address those problems (Earp et al.). For example, many lay health advisors were paid a salary for their services, while others did not receive compensation. (Jackson and Parks, 1997; Earp et al., 1997).

The activities and methods used by lay health advisors to provide education to targeted individuals also vary. Education can be presented in a variety of settings that can range from causal meetings with one-on-one conversations to formal group presentations.

An example of the lay health advisor program community trial, undertaken by the North Carolina (NC) Breast Cancer Screening program, was designed to improve the quality and length of life for rural African American women in eastern North Carolina by increasing the use of mammography. African American women have higher mortality rates for breast cancer and are often diagnosed in the later stages of disease just as is the case with African American men and prostate cancer. The NC Breast Cancer Screening program utilized a lay health advisor network intervention supplemented by a number of other activities to reach rural African American women in eastern NC over the age of 50.

Recruitment to Prostate Cancer Screenings

Community outreach specialists, hired by the program, recruited 149 lay health advisors from within the five intervention counties in rural eastern NC. These lay health advisors were provided training consisting of 3-5 sessions that presented 10-12 hours of instruction regarding breast cancer, breast cancer screening and eligibility for screening payment. The lay health advisors made presentations to a variety of local community sites and community events such as beauty parlors, nutrition sites, churches, health fairs and parades. The trial resulted in a 6% increase in community wide mammography use and an 11% increase for low-income women (Earp, Eng, and O’Malley et. al., 2002).

Another effective avenue for reaching the African American community is through the local church organizations. Much of the literature supports the importance of the church to the African American population (Kotecki, 2002). The African American church was the first institution established in the black community after the civil war not controlled by the white man and most continue to remain independent of political influence (Powell, et al., 1995). The church has long been a central component in the African American community and traditionally has supported health care activities for its members (Briscoe and Pitchert 1996).

The Detroit Education and Early Detection (DEED) program that was conducted from 1993 to 1995 focused on churches, which organizers viewed as the most effective communication channel in the African American community. The DEED program provided no-cost prostate cancer screening using PSA testing following African American church services (Gelfand, 1995). In contrast to the, NC-Breast Cancer Program, the DEED program did not use a true LHA model, but rather emphasized cancer education shared by an African American health professional and a prostate cancer survivor with special training in a church based setting.
Recruitment to Prostate Cancer Screenings

(Gelfand, 1995). The program was successful in recruiting over 1000 African American men for prostate cancer screening (Powell, Gelfand, Parzuchowski, Heilbrun, and Franklin, 1995).

Several North Carolina counties have an ongoing prostate cancer screening programs according to the North Carolina Prostate Cancer Coalition. Lenoir County has a similar size and demographic composition to Craven County and also conducts an annual prostate cancer screening event coordinated through Lenoir Memorial Hospital. This program does not use a lay health advisor model, but instead uses traditional advertising approaches such as public service announcements (PSA) on TV, paid newspaper announcements, and flyers placed at local African American organizations and businesses. The Lenoir program conducts the annual screening at a local African American church. Participation for the most recent screening conducted in September 2002 had an equal number of white and African American participants but screened only 60 individuals. The goal for the screening was 100 participants (Sonia Joyner, personal communication, March 2, 2003). Several organizers in other counties were contacted and asked about their recruitment process and success rate for African American participation. Onslow, Carteret and Pitt Counties in Eastern North Carolina, combined efforts in September 2002 and conducted a screening event in each county on the same day. This group did not specifically target African Americans (Janna Martin, personal communication, September 10, 2002).

Likewise, Randolph hospital in Asheboro, NC, only used local newspapers to advertise and recruit participants to the annual screenings held in the past several years (Lisa Alley, personal communication, March 2, 2003). Organizers reported a poor African American turn out in these counties. Granville County holds an annual screening at Granville Medical Center reported "good" participation from African Americans. Organizers there target workers at manufacturing
Recruitment to Prostate Cancer Screenings

plants in the county and have an RN that volunteers to provide education on Sunday mornings to various African American churches on the topic of prostate cancer and early detection. The nurse is well known and has deep roots and many contacts in the African American community. A Granville County Urologist of African American decent, actively recruits underserved and high-risk individuals to the annual screening event (Debby Markovic, personal communication, March 3, 2003).

Using Knowledge and Experience from Public Health to Improve African American Participation Rates in Craven County's Cancer Screening Program

Craven Regional Medical Center (CRMC) is a 313-bed hospital in located in New Bern NC, which serves a predominately rural population in eastern North Carolina. Since 1992, CRMC partnered with physicians at New Bern Urology Clinic to provide an annual prostate cancer screening program for the counties served by the hospital, Craven, Pamlico and Jones. The urologists provided the digital rectal exams and the hospital provided the PSA tests. RN educators in the CRMC's staff development department planned and coordinated the program each year. The cost for the screening was only $10.00; however, this fee was waived if participants did not arrive prepared to pay. The screenings were held in September during Prostate Cancer Awareness Month with good participation and few "no-shows". A simple advertisement in the local newspaper prompting prospective participants to call for an appointment easily filled the 150 appointments offered each year, and numerous individuals had to be placed on a waiting list. By 1994, the urologists and the RN educators realized the program was not reaching the African American population, since nearly 95% of the participants each
Recruitment to Prostate Cancer Screenings

year were white. Outreach efforts to increase the African American participation included prescheduling African American fraternities, church groups, and other social groups. This was done before advertising the event to the general population. Organizers facilitated transportation to the screening through local community groups, including churches and health agencies. In 1995, an additional screening was held in conjunction with a church located in a predominately African American neighborhood in an attempt to bring the screening closer to the target population. These efforts failed to improve African American attendance, as many of the pre-scheduled African American men were no-shows and few others choose to participate in the health fair. The screening held in September of 1998 yielded approximately 180 participants with less than 6 being African American. Based on these results, the urologists and RN coordinators decided to suspend the program until recruitment efforts aimed at the target population of African Americans could be improved.

The experiences of the first several years of prostate cancer screening in Craven County made it clear that a different approach to recruiting African Americans was needed. Based on an understanding that public health had much more experience and was better prepared to provide expertise in outreach efforts aimed at minority populations, the inclusion of the Craven County Health Department and other community groups was seen as the initial step required to improve recruitment. With this in mind, the Craven County Prostate Cancer Coalition was established in 1999. The coalition drew members from the following groups: Craven County Health Department, New Bern Urology Physicians, Craven Regional Medical Center, Craven County Chapter of the American Cancer Society (ACS), the local chapter of the ASC Man-to-Man Prostate Cancer Support Group, and the Craven County African American Men’s Alliance.
The coalition goal was to reduce mortality and morbidity from prostate cancer in the African American population of Craven, Jones, and Pamlico counties with the main objectives of reaching 150 African American participants at the September 2000 screening event. Other objectives focused on recruitment efforts and included: 1) Research target population understanding of prostate cancer; 2) Implement intensive recruitment effort targeting high-risk African American males; 3) Provide prostate cancer education programs in at least 20 African American churches; 4) Provide prostate cancer education to African Americans in at least 4 fraternal and sororal organizations (Alpha Kappa Alpha Sorority, Inc., Delta Sigma Theta Sorority, Inc., Omega Psi Phi Fraternity, Inc., Price Hall Masonic Order); 5) Provide educational materials for distribution to at least 20 African American barbers and beauticians; 6) Provide prostate cancer education of African American males in 4 civic/political organizations (Craven County NAACP, African American Men's Alliance, Voter's League of Craven County, Concerned Citizens of Craven County.); 6) Screen at least 150 African American Males meeting screening criteria.

To deliver the message of early detection of prostate cancer, the coalition implemented a modified version of the Lay Health Advisors model that has been successfully used by public health professionals to address health issues in underserved populations. The Craven County Health Department member helped the coalition recognize the significance of church in African American culture. Coalition members decided to design an outreach program that used Lay Health Advisors to teach within the local African American churches as the primary base for the recruitment initiatives. The coalition planned to also target other important African American
venues such as barbershops, beauty parlors, fraternities, sororities, health fairs, community centers, civic and political organizations.

The coalition planned to identify and prepare individuals willing to present a prostate cancer awareness and education program to African Americans within the identified locations. Identification of prospective lay health advisors (which the coalition actually called Lay Prostate Cancer Health Advisors) was accomplished mostly through recommendations by coalition members and by self-selection. For example, coalition members promoted the concept to the 1400 employees of Craven Regional Medical Center and their families by memo. The training program curricula was aimed at helping the Lay Prostate Cancer Health Advisors address negative attitudes about prostate cancer screening and encourage attendance of targeted individuals at the annual screening event. Planning for the specifics of the Lay Prostate Cancer Health Advisor program began under the direction of the Medical Director of the Craven County Health Department, a retired surgeon and African American himself, and a practicing urologist from New Bern Urology. Their efforts were assisted by the RN Educator at Craven Regional Medical Center responsible for coordinating the annual prostate cancer-screening event, a representative from the American Cancer Society, and a prostate cancer survivor and leader in the Man-to-Man support group.

Recognizing the need for a source of funding to support the prostate cancer recruitment efforts, the coalition sought grant monies from the American Cancer Society. The Craven County Health Department served as the writer and administrator of the grant on behalf of the coalition. To kick off the new initiative the Prostate Cancer Coalition sponsored a prayer breakfast in February of 2000, inviting pastors and church leaders from African American
Recruitment to Prostate Cancer Screenings

congregations in Craven County. The purpose of the breakfast was to raise awareness of recruitment efforts, identify potential lay health advisors, and establish a contact network with the churches.

By May of 2000, ten Lay Prostate Cancer Health Advisors were identified and training materials on the pathogenesis of prostate cancer, anatomy of the prostate gland, early detection of prostate cancer, treatment options for prostate cancer and general teaching methodologies were developed under the direction of the urologist. The training program contained ten behavioral objectives: 1) discuss anatomy of the prostate gland; 2) state the difference between benign and malignant tumors; 3) state the importance of early detection and the American Cancer Society Screening Recommendations; 4) state the two primary tests used in a prostate cancer screening; 5) describe three main types of active treatment options for prostate cancer; 6) explain the concept of watchful waiting; 7) explain urinary incontinence and impotence as possible complications from prostate cancer treatment; 8) appreciate African American cultural factors related to low participation in cancer screening; 9) identify community resources to support patients and families diagnosed with prostate cancer; and 10) describe how prostate cancer incidence and mortality rates differ between African Americans and other groups. The urologist and the Medical Director of the Health Department presented the training program.

Participants received several types of resource materials, including male urinary anatomy diagrams, videotapes, program outlines, ACS Prostate Cancer guidebooks, and other reference materials.

The Craven County Prostate Cancer Coalition planned to utilize the ten trained Lay Prostate Cancer Health Advisors to provide the awareness and education sessions during several
Recruitment to Prostate Cancer Screenings

months prior to the September screening. Despite the participation at the initial training events, commitment of most of these Lay Prostate Cancer Health Advisors proved to be a crucial variable. Most of the trained Lay Prostate Cancer Health Advisors did not follow through with presentations in the churches citing two main reasons; lack of comfort in presenting the topic and time constraints. In fact, all but a few of the church presentations were given by the Medical Director from the Health Department with a member of the American Cancer Society Man to Man Prostate Cancer Support group who was one of the trained Lay Prostate Cancer Health Advisors. The extent to which the Lay Health Prostate Cancer Advisors provided one-on-one education to recruit African American males was not determined. Despite the lack of participation by most of the Lay Prostate Cancer Health Advisors, the two main presenters that did participate proved to be very effective. Both men were well known and respected in the African American community and provided legitimacy for the program among the target population.

The team generally provided two types of presentations. The first type was offered if the presentation was given within a Sunday morning worship service and the program consisted of a shortened 10-minute session to raise awareness of prostate cancer and the upcoming screening. A second type of presentation was given when the opportunity to present the program during a weekday or evening meeting was available. In these cases, the program was extended to 30-40 minutes and often included a meal or refreshments. The format allowed all members of the congregation to attend and women were seen as being especially important to awareness and recruitment efforts. The extended presentation included a short video tape on prostate cancer produced by the American Cancer Society, followed by a physician presentation of the medical
Recruitment to Prostate Cancer Screenings

facts and ended with a discussion led by the Lay Health Advisor, who was also a prostate cancer survivor. At the end of either the short or the extended presentations, participants received a yellow registration post-card to fill out and return at the end of the session or to mail back at a later time. The post-card described the importance of early detection, the age of the target group, and a section to request further information and/or to register for the upcoming screening. Participants could also take post-cards home to other family members and friends that may not have attended the presentations. The programs were presented at approximately 20 African American churches during the months leading up to the screening. Similar presentations were also provided to many other community groups such as African American fraternities, social and civic groups (Sydney Barnwell, MD; Bob Blackwell, personal communication, February 27, 2003).

Other recruitment efforts to target African Americans included; 1) public service announcements on a local radio station with an African American listening audience; 2) paid advertisement in an African American newspaper; 3) interviews on local television stations; 3) flyers posted in African American barbershops and beauty parlors, and 4) distributions of incentives such a pens and T-shirts at the church and community presentations.

In August of 2000, the month before the screening, organizers began to schedule participants. Craven Regional Medical Center volunteers (mostly retired nurses) placed telephone calls to individuals who had registered for the screening using the yellow post-cards. The nurse coordinator educated the volunteers in the use of established screening criteria to register prospective participants. Criteria included a targeted age range; no history of previously diagnosed prostate cancer; and not having had a prostate cancer exam or PSA in the 12 months
Recruitment to Prostate Cancer Screenings

before the screening date. In addition, advertisements in the local African American newspaper listed a phone number that was staffed by the trained volunteers and allowed prospective participants to call and schedule an appointment. Posters and other advertisements encouraged appointments, but also encouraged walk-ins. Registered participants received follow-up phone calls and/or letter as reminders of the appointment.

The Prostate Cancer Coalition selected a screening site that was located within a predominate African American section of the city of New Bern. The site was a building used as a Senior Center and was a well-known location. The screening staff consisted of numerous volunteers and professionals who worked under the direction of the nurse coordinator. Numerous non-professional volunteers were provided through Craven Regional Medical Center and the ACS Man-to-Man group. The nurse coordinator provided job specific training for each of the volunteers before the screening. Volunteer roles included greeters, escorts, and history takers. History takers were also given written instructions. Professional staff included the physicians, nurse coordinators, other nurse volunteers, and phlebotomists, who were provided by the New Bern Urology Clinic, Craven Regional Medical Center, and Craven County Health Department. The nurse coordinator gave each of these professionals a briefing before the screening.

Recognizing the importance of a positive screening experience to future screening efforts, organizers used several strategies. Each participant was welcomed to the screening by a prominent member of the African American Community and a volunteer as soon as he entered the building. Greeters quickly acknowledged family or friends that may have accompanied the participant, offering both comfortable seating and refreshment. Greeters also provided an explanation to each the participant regarding the estimated time for the screening process.
Volunteers registered each participant and then escorted him to a separate seating area where he could review the consent form while he was waiting. Educational literature was available at this location and an RN was available to provide explanations and answer questions.

Next, participants were escorted to a private interview station where a trained volunteer (i.e., a retired or active duty RN or a trained member of the Man-to-Man Prostate Cancer Support Group) interviewed the participant to obtain a history, which included demographic information, and current prostate health status. Each participant was allowed an opportunity to ask questions, which were answered by a nurse coordinator and/or the physician as necessary. Before signing the consent form, each participant was asked to state that they would be receiving a blood test and a rectal exam to check for prostate cancer. If the participant was not able to read, the interviewer read the consent to him.

After the histories and consents were completed, participants were escorted to the lab area where the PSA blood test was obtained. Next participants went to the private exam areas where they were greeted by a nurse and assisted in preparing for the exam process. During the exams, the physician shared the DRE result with the participant. After the exam, nurses escorted the patients to the hand washing station and then back to the refreshment area to join any family or friends. Participants were encouraged to pick up additional literature and were given information on when to expect their PSA results. Results of the 2000 screening were extremely encouraging as 149 of the 151 participants were African American. The nurse coordinator sent letters with the results of the DRE exam and PSA test to each participant that included recommendations for further action as necessary. The nurse coordinator also made follow up phone calls to participants with abnormal DRE or PSA results, to remind participants
to follow the recommendations. Both Craven Regional Medical Center and the New Bern Urology clinic worked with individuals with financial limitations as necessary.

Immediately following the 2000 screening event, the Prostate Cancer Coalition reflected on the successes and failures of their recruiting strategy. Although pleased with the numbers of African Americans participating in the screening, the Lay Health Prostate Cancer Advisors program had not met expectations as described earlier. Coalition members identified that the amount of time and resources available to the coalition had not allowed for any formal evaluation process of the Lay Prostate Cancer Health Advisors program and recruiting activities. The lack of follow up education was a major reason for the limited participation along with the inadequate recruitment of the Lay Prostate Cancer Health Advisor.

With time and resources as a limited factor, the Prostate Cancer Coalition decided to focus their recruitment efforts for year two (2001) primarily within the church community using the same team of individuals that had provided most of the educational presentations in year one. Most of the grant monies from year one were exhausted so the coalition did not hold a prayer breakfast kickoff and they were not able to purchase incentives. They were able to secure advertising from the same local radio and television station and to provide mileage reimbursement for the presenters. In addition to the African American churches in Craven County, the team of presenters made an effort to reach churches in a small rural county that borders Craven (Pamlico) but they were only minimally successful. The registration for the screening in year two was undertaken just as described in year one. The coalition once again chose the Senior Center located in a predominately African American neighborhood as the site for the screening. Clinic flow and volunteer recruitment was planned and executed just as in
Recruitment to Prostate Cancer Screenings

year one. The screening in year two yielded 138 participants falling just short of the 150 participant goal. All participants were African American. Follow up procedures were the same as in year one.

Since approximately 25% of the participants in year two had attended in year one, the Prostate Cancer Coalition planned to concentrate recruitment efforts for year three in Jones County in an effort to reach individuals not previously screened. Early in 2002, the Prostate Cancer Coalition was able to recruit a new member from Jones County, a small county that borders Craven County and is served by Craven Regional Medical Center. The new member had just recently moved back to the area to care for her aging parents. Her education level (PhD in sociology), her high motivation to assist with health issues in her home community and the fact that she was African American, allowed her to effectively reach church leaders. She coordinated presentations for 18 African American Churches in Jones County. Although the main focus in 2002 was on Jones County, an additional 15 presentations were given to African American congregations in Craven County.

As in the previous two years, a local African American radio station and a local television station provided additional advertisement for the screening at no charge. Additionally, in year three, coalition members participated in an African American family festival held in New Bern's Duffyfield community. During the festival, members passed out information and postcards to individuals in the target population. Participant registration, recruitment of volunteers and clinic flow was the same as in the previous two years. The one significant difference was the location since the Senior Center was unavailable. The coalition decided to use the Radiation Oncology Building at Craven Regional Medical Center since Jones County was a major target area for this
screening and the hospital is a familiar location for residents of Jones County. Members felt that
the change of location would probably not negatively impact attendance. The participation was
seen as successful since the 130 participants were African American and only 15 of these had
attended previous screenings.

**Discussion**

The authors recognize that a formal model was not used to plan and evaluate this prostate
recruitment and screening programs and recommend that the Prostate Cancer Coalition use a
formal process such as the six-step planning process developed by Dr. Mary Peoples-Sheps and
colleagues for future screening events (Website). The rational program planning model provides
a framework that is useful for addressing public health problems effectively. The steps of the
model are 1) Assessment of Health Status Problems; 2) Health Services Needs Assessment; 3)
Development and Selection of Interventions; 4) Setting Objectives; 5) Programming and
Implementation; and 6) Evaluation: Monitoring Progress Towards Achievement of Objectives
(Peoples-Sheps 2001).

In our program, the first three steps were well established but our program lacked
emphasis on steps four through six. In step four, a hypothesis is developed followed by clear,
measurable objectives. The Craven County Prostate Cancer Screening Program lacked a written
hypothesis and the objectives were not clear and measurable. A formal operational program
plan, as outlined in step five of the rational planning process, is needed. This should include a
detailed description of all activities and a schedule or timeline for program completion. In the
case of the Lay Prostate Cancer Health Advisors program, this would be especially important for
successful implementation. Finally, as recommended in step six, the recruitment and screening
Recruitment to Prostate Cancer Screenings

processes and their outcomes must be formally evaluated to compare actual experience to program objectives. This approach would be very useful to provide information that planners can use to conduct subsequent recruitment and screening programs.

The Prostate Cancer Coalition made additional observations regarding lessons learned in the three years of screening. The African American physician had a public health background and he was a vital link in reaching the target population. As a very well known and respected physician in the community, he provided legitimacy for the program. Additionally, the presence of a knowledgeable African American prostate cancer survivor helped reduce fears in the target population. The group found that providing incentives such as pens and t-shirts was not as useful as anticipated. They discovered that the attendance of women at the education presentations was a key strategy in getting African American men to participate in the screenings. The experience of the African American members within the coalition was that African American women often act as the head of household and exert influence over husbands, boyfriends, fathers, brothers, and other family members in seeking health services.

The greatest disappointment of the recruitment process was the lack of full participation from most of the trained Lay Prostate Cancer Health Advisors. In retrospect, the group realized that efforts to recruit, train and deploy the Lay Prostate Cancer Health Advisors were inadequate and the authors attribute this to the absence of a formal planning model. The coalition considered the Lay Health Advisors model as an appropriate method to reach African American men in the presence of proper planning, adequate time and required resources and plans to use this method for future efforts. The coalition also recognized that the success of using the one physician and one prostate cancer survivor is a model that cannot be sustained over time. Finding another
Recruitment to Prostate Cancer Screenings

African American physician willing to devote nearly every Sunday to this effort is not likely. Additional understanding of the available research regarding proper selection, training, monitoring and evaluation of a lay health advisor program in Craven and surrounding counties will need to be undertaken. The lack of resources must also be addressed to provide funding for the recruitment process.

Conclusion:

While prostate cancer screening is a controversial issue, the Craven County Prostate Cancer Coalition followed the American Cancer Society recommendations for prostate cancer screening and saw it as a vital tool in reducing the health disparities associated with prostate cancer. Although, the use of a true lay health advisor model was not successful, another method of reaching African American men for prostate cancer screening was successful. Goals for participation of African American men in each of the three years reviewed were achieved. The Craven County Prostate Cancer Coalition will revisit the use of a lay health advisor model as a means for future recruitment efforts and sees it as a valuable and appropriate method that could be used in African American churches in Craven, Jones and Pamlico counties. Additional resources will be required to utilize this approach. Finally, and most importantly, a program planning model, such as the rational program planning model should be used for future screening programs.

The early years of the Craven County Prostate Cancer Screening program, although quite successful in recruiting participants, failed to reach all but a few African American men. With the synergy created by a coalition of interested groups combined with the knowledge from the
Recruitment to Prostate Cancer Screen

discipline of public health, this outcome was significantly changed within a few months time resulted greater than expected success. The main lesson learned from this experience, is that improvement is a team effort and requires involving the whole community to better understand and reach desired goals.
References


Recruitment to Prostate Cancer Screenings

References


Recruitment to Prostate Cancer Screenings

References


