



Prostate Cancer Screening

Mary Hunt Johnson RN, OCN

The Barron Center for Men's Health



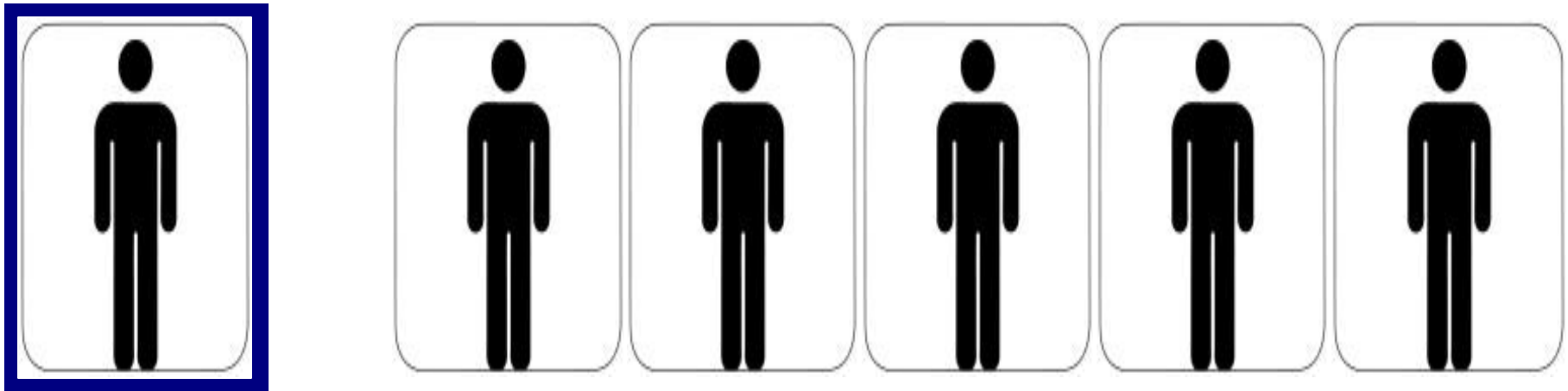
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● ● ● | Key Statistics-2008

- Most common cancer after skin cancer
- New cases diagnosed **186,320**
- Second leading cause of cancer death in American men.
- Deaths *from* prostate cancer **28,660**



● ● ● | 1 out of every 6 men!!



- Autopsy studies have shown 1 out of every 3 men over 50 had evidence of prostate cancer and that 80% of these were clinically insignificant. (Dall'Era 2008, Yatani 1982)

- 2008 study found incidental prostate cancer diagnosed in organ donors in 33% men age 60-69 and 40% in men over 70. (Yin 2008)



Natural History of Prostate Cancer

- Some Prostate cancers grow slowly and never cause symptoms.
- Some prostate cancers are fast growing and metastasize, or spread to other parts of the body quickly.
- Some prostate cancers grow at a moderate pace.



Which are which?



We don't know.



What are the risk factors for Prostate Cancer?



Age



- Age is strongest risk factor for prostate cancer.
- Two thirds of prostate cancers are diagnosed in men over age 65.



Race



- African American men are at increased risk.
- More likely to be diagnosed at an advanced stage.
- More than twice as likely to die of prostate cancer as white men.
- Occurs less often in Asian-American and Hispanic/Latino men.
- Asian in US less likely than White men, but more likely than Asians living in Asia.



Family History



- Runs in some families suggesting inherited or genetic factor.
- Having father or brother more than doubles risk. Brother > Father.
- If more than one relative risk higher.
- Risk higher if relative was diagnosed at young age.



Genetics

DNA



- Scientists have found several inherited genes that raise risk. Not available yet.
- BRAC1 and BRAC 2 genes also have increase risk of prostate cancer.
- Both Father's and Mother's sides count!



No proven preventative measures

- The **Key** to overall health- Good for your heart, good for your prostate





What are the symptoms
of prostate cancer?



Early Prostate Cancer

*Most men do not
have any symptoms!!!*



Possible symptoms of Prostate Cancer

- Weak or interrupted flow of urine
- Frequent urination (especially at night)
- Difficulty urinating
- Pain or burning during urination
- Blood in the urine
- Painful Ejaculation
- Nagging pain in the back, hips or pelvis

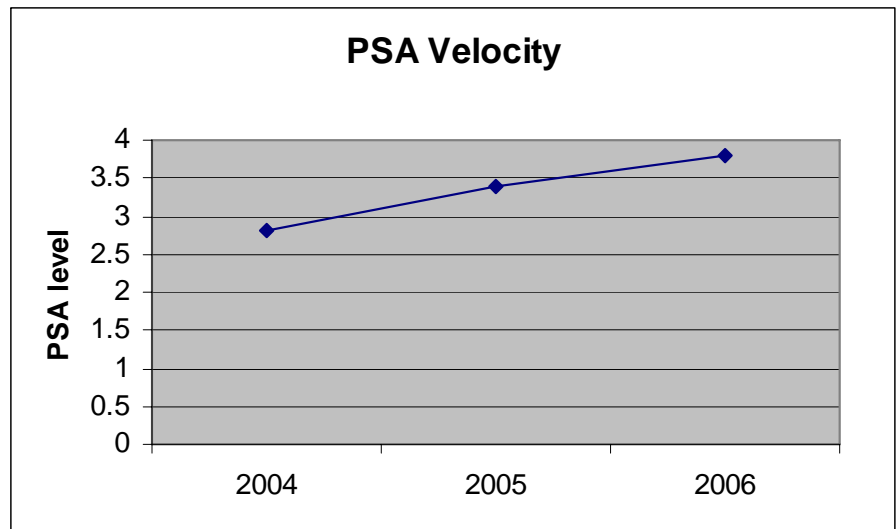


What are the most
common prostate
screening tests?

PSA

- PSA or Prostate Specific Antigen is a chemical that is found in the seminal fluid and the blood stream.
- A high PSA level may be a sign of prostate cancer.
- **PSA velocity** -The change in PSA results over time. PSA values rise quicker in men with prostate cancer than in men without prostate cancer.

Medical Record John Doe Age



Digital Rectal Exam (DRE)

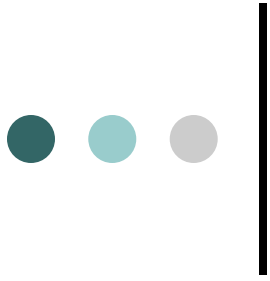
- A physician feels the prostate through the rectum looking for any irregular shapes or bumps.



The Good News



In the past decade, there has been a gradual but steady decline in prostate cancer mortality of approximately 30%.

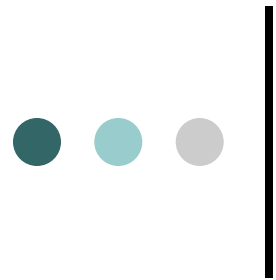


- Randomized trials in Sweden and a study in US indicated that **active treatment of clinical localized prostate cancer may reduce prostate cancer mortality.** (Bill-Axelsson 2005, Wong 2006)
- Data from observational studies in US and Austria also suggest **association between PSA and decreased prostate cancer mortality.** (Bartsch 2001, Agalliu 2007)

● ● ● | No major scientific or medical organizations, including:

- The American Cancer Society
- American Urological Association
- US Preventive Services Task Force
- American College of Physicians
- National Cancer Institute
- American Academy of Family Physicians
- American College of Preventive Medicine

supports routine testing at this time.



Recent Studies

- Recently New England Journal of Medicine published 2 large studies that looked at **whether or not prostate cancer screening, PSA and DRE saves lives.**
- Main points:
 - Neither found a large benefit from screening.
 - Final results will not be available for years.
 - Neither have resolved the screening issue.



Closer look at the studies

- ● ● | US Prostate, Lung, Colorectal and Ovarian (PLCO) Cancer Screening Trial. (NCI trial)
- 76,000 men either usual care or annual PSA tests for 6 years and DRE's annually for 4 years.
- Little difference in prostate cancer death rates at 7 and 10 years.
- However men in control group were not barred from screening tests. 52% by 6th year were screened.
- Data 7-10 years out may be too soon.
- PSA value of 4.0ng/ml was trigger for biopsy might not be right level.

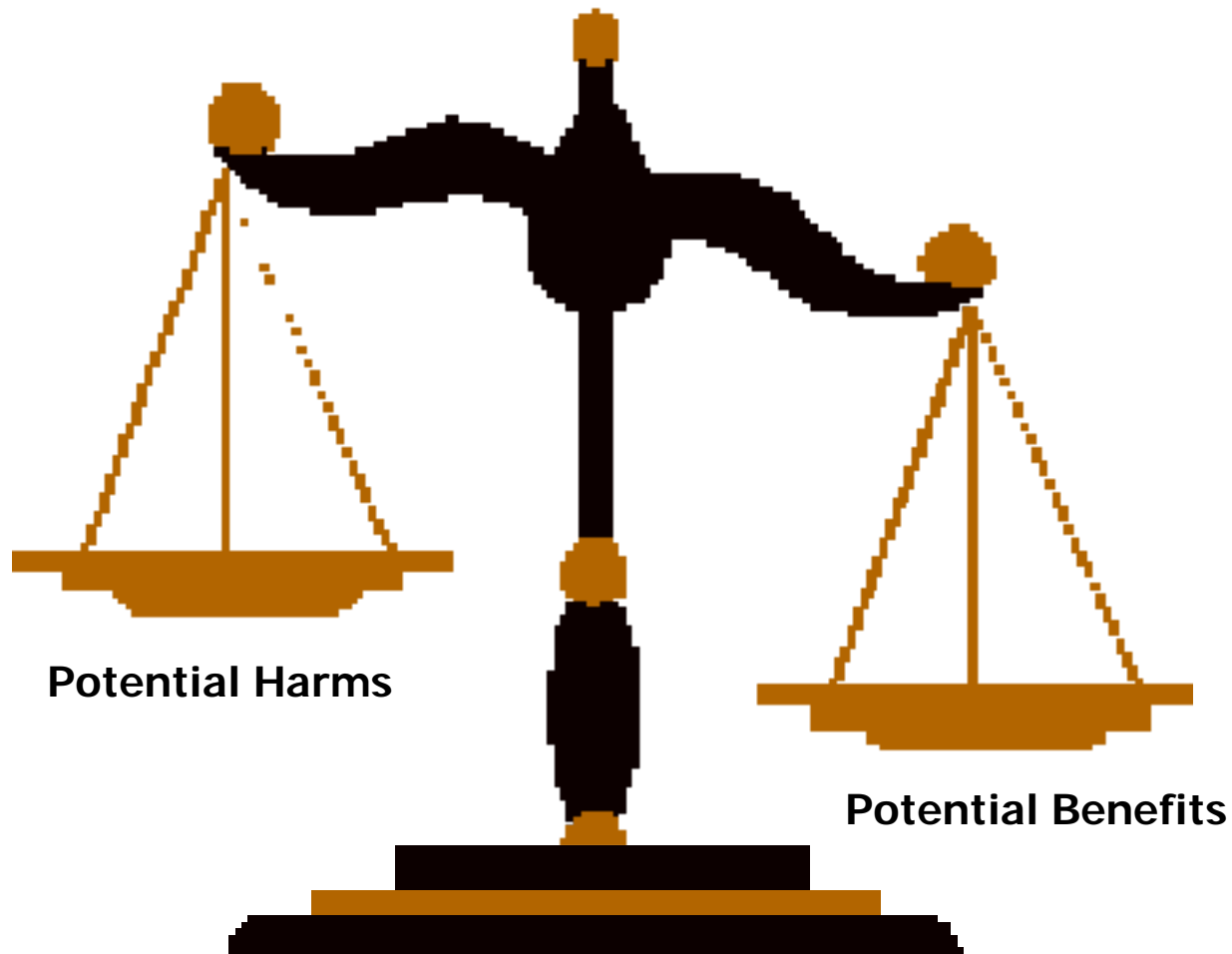


European Randomized Study of Screening for Prostate Cancer (ERSPC)

- 182,000 men ages 50-74 from 7 different countries.
- Control group and screening group –PSA on average every 4 years, DRE twice over that same period of time.
- At median follow up of 9 years screening reduced rate of prostate cancer deaths by 20%.
- According to the authors, 1410 men would need to be screened and 48 additional cases of prostate cancer would need to be treated to prevent one death from prostate cancer.
- Not a uniform study design. Many countries used different study protocols.
- Many researchers used PSA 3ng/ml instead of 4ng/ml resulting in more European men were diagnosed with prostate cancer.

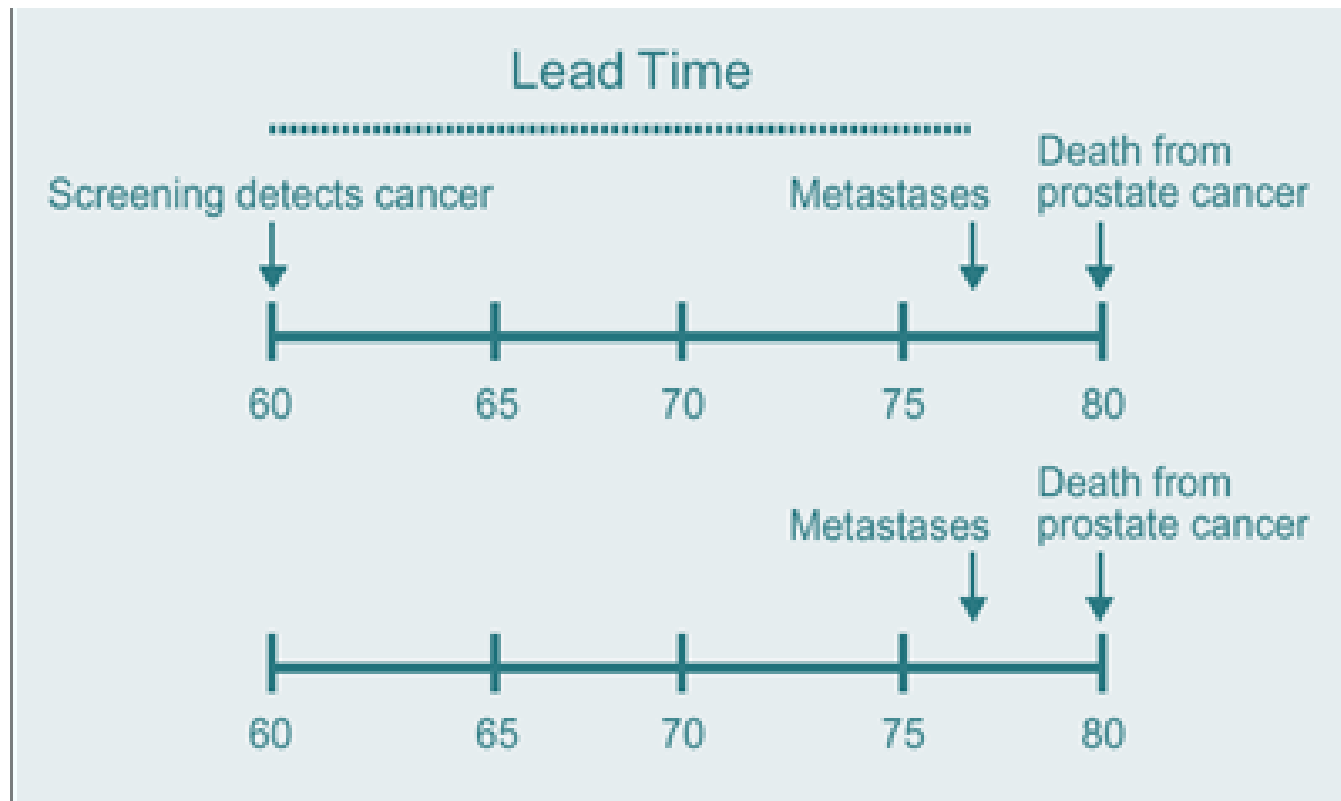
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Dr. Otis W. Brawley chief medical officer of the American Cancer Society
“...the question is not as simple as ‘does prostate cancer screening work?’
What we need to know is: what are benefits of prostate cancer screening
and are they large enough to outweigh the harms associated with it?”

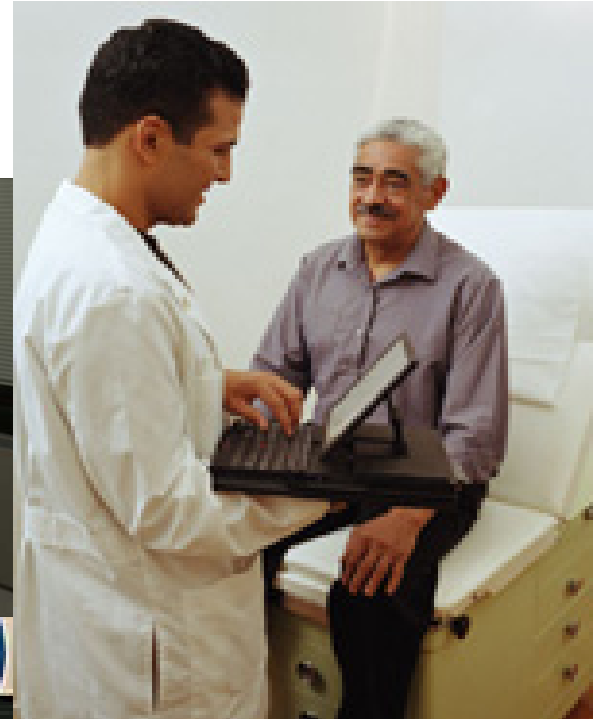


Key Issues of Screening

- Does screening extend men's lives (are there benefits)?
- Does screening lead to health problems (are there harms)?
- Do the benefits outweigh the harm?



Shared Decision Making About Prostate Cancer Screening

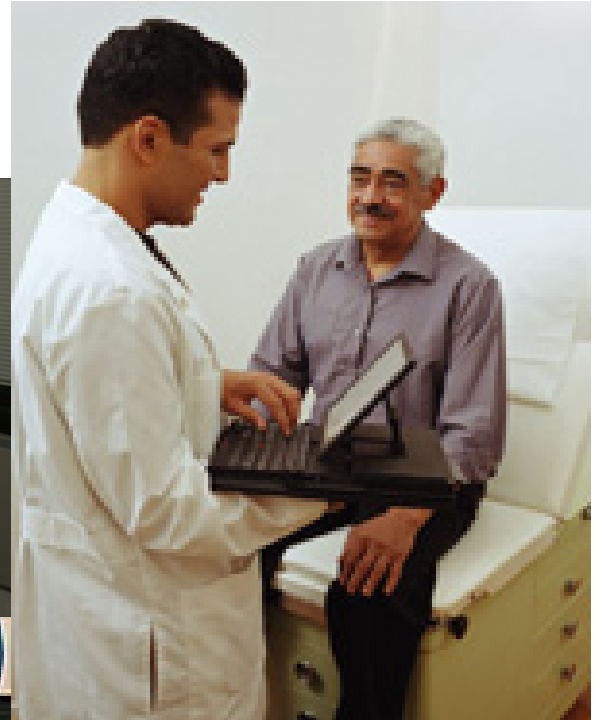




Men should talk to their health care providers about prostate cancer screening

- Begin discussion at age 40.
- Discussion should include:
 - Individual Risk Factors (African American men and men with first degree relative with prostate cancer)
 - Pros and Cons of screening
- Men who wish to be screened should have both a PSA and a DRE.

● ● ● | Shared Decision Making
About Prostate Cancer Treatment





- Prostate cancer is a leading cause of death.
- Risk increases with age and is highest in some racial/ethnic groups and in men with positive family histories.
- Prostate cancer is heterogeneous; some cancers are fatal, others are not.
- There are no known strategies for preventing the development of prostate cancer.
- Recent studies have not resolved the screening issues.
- Every man should discuss his personal risk factors, and screening options with a health care provider.

Thank you



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