Determinants of Men’s Health: Opportunities for Evidence-based intervention

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Objectives

- Epidemiologic overview of major health disparities affecting men’s health
  - Major risk factors
    - Modifiable
    - Non-modifiable
- Recommended screening approaches
- Implications for public health programs

Gender as a determinant of health status

- Life spans
- Patterns of disease
  - Age at onset of severe chronic and/or fatal conditions
  - Age at death
  - Mortality rates
- Gender disparities in longevity persist despite technological advances
  - Gender roles and norms
  - Health beliefs and behaviors
  - Biological differences
  - Cultural context
  - Interaction with other factors (race, SES, etc.)

Gender and racial differences in life expectancy, US 1975-2002

Men’s Health in US

- Population 147.5 million
- Health status of adults*
  - Fair or poor health: 12%
  - Limitation in usual activities due to a chronic health conditions: 12%
- Health risk factors** (Health, United States, 2008)
  - Currently smoke: 24% (2006)
  - Overweight (age ≥ 20): 72% (2003-2006)
  - With hypertension (age ≥ 20): 31% (2003-2006)
- 368.7 million office-based physician visits (all ages) ***
- 18% of population under 65 years without health insurance coverage*
- 20% of adults without a usual source of health care*

*NHIS, 2007; **Health, United States, 2008; ***NAMCS: 2006 Summary

Leading Causes of Death in US Males, 2004

1) Heart disease 27.2
2) Cancer 24.3
3) Unintentional injuries 6.1
4) Stroke 5.0
5) Chronic lower respiratory diseases 5.0
6) Diabetes 3.0
7) Influenza and pneumonia 2.3
8) Suicide 2.2
9) Kidney disease 1.7
10) Alzheimer's disease 1.6

Leading Causes of Death in US White Males, 2004

1) Heart disease 27.7
2) Cancer 24.6
3) Unintentional injuries 6.1
4) Chronic lower respiratory diseases 5.3
5) Stroke 4.9
6) Diabetes 2.8
7) Influenza and pneumonia 2.3
8) Suicide 2.3
9) Alzheimer's disease 1.7
10) Kidney disease 1.6

Leading Causes of Death in US Black Males, 2004

1) Heart disease 24.8
2) Cancer 22.2
3) Unintentional injuries 5.9
4) Stroke 5.2
5) Homicide 4.7
6) Diabetes 3.8
7) HIV disease 3.3
8) Chronic lower respiratory diseases 2.8
9) Kidney disease 2.4
10) Influenza and pneumonia 1.9

Leading Causes of Death in US Hispanic Males, 2004

1) Heart disease 21.9
2) Cancer 19.0
3) Unintentional injuries 11.4
4) Stroke 4.7
5) Diabetes 4.2
6) Homicide 4.1
7) Chronic liver disease 3.5
8) Suicide 2.7
9) Chronic lower respiratory diseases 2.4
10) Perinatal conditions 2.2

Non-modifiable risk factors

- Being male
- Family history
- Age
- Genetic factors

Modifiable risk factors

- Health-related behaviors
  - Sociocultural influences
  - Men more likely to engage in 30 behaviors that increase risk for disease, injury, and death (WH Courteny, 2000)
  - Greater alcohol consumption at all ages
  - More binge drinking
  - More illicit drug use
  - Less routine health care use
- Social networks and support systems
Tobacco Use in the US, 1900-2004

Trends in Cigarette Smoking Prevalence* (%), by Sex, Adults 18 and Older, US, 1965-2006

Trends in Overweight* Prevalence (%), Adults 18 and Older, US, 1992-2005

Aging Male Syndrome

- Feeling fat/weight gain
- Problems sleeping
- Less interest in sex
- Feeling irritable or angry
- Erection problems
- Nervousness
- Problems with memory and concentration
- Muscle loss
- Increased urination
- Depression
- Loss of energy
- Bone and hair loss

Gender Disparities in Cancer

2008 Estimated US Cancer Deaths*

<table>
<thead>
<tr>
<th>Cancer Site</th>
<th>Men (%)</th>
<th>Women (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung &amp; bronchus</td>
<td>31%</td>
<td>26%</td>
</tr>
<tr>
<td>Prostate</td>
<td>10%</td>
<td>15%</td>
</tr>
<tr>
<td>Colon &amp; rectum</td>
<td>8%</td>
<td>9%</td>
</tr>
<tr>
<td>Pancreas</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>Liver &amp; intrahepatic bile duct</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>Leukemia</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>Eosinophages</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>Urinary bladder</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Non-Hodgkin lymphoma</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Kidney &amp; renal pelvis</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>All other sites</td>
<td>24%</td>
<td>25%</td>
</tr>
</tbody>
</table>

*ONS=Other nervous system.
Cancer Death Rates* by Sex, US, 1975-2004

*Age-adjusted to the 2000 US standard population.

Cancer Death Rates* by Race and Ethnicity, US, 2000-2004

*Per 100,000, age-adjusted to the 2000 US standard population
†Ethnicity of Hispanic origin may be of any race

Colorectal Screening is recommended beginning at age 50

Cancer Prevention and Treatment Demonstration Collaborating Centers

Demographic Characteristics (N = 1040)

- 74% female
- 95% African American
- Median age: 71 (range 65-79)
- 63.4% widowed/divorced/separated/living with partner
- 35% reported an annual income >$25,000
- 50% on Medigap or Medicare supplement
Colorectal endoscopy in past 10 years
Overall study population (N = 1040)*

<table>
<thead>
<tr>
<th></th>
<th>Odds Ratio</th>
<th>Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>0.62</td>
<td>0.16, 0.65</td>
</tr>
<tr>
<td>Cancer knowledge</td>
<td>0.39</td>
<td>0.17, 0.92</td>
</tr>
<tr>
<td>Medigap coverage</td>
<td>1.57</td>
<td>1.12, 2.21</td>
</tr>
<tr>
<td>Regular provider</td>
<td>2.12</td>
<td>1.20, 3.73</td>
</tr>
<tr>
<td>Access to specialty care</td>
<td>3.05</td>
<td>1.40, 6.61</td>
</tr>
<tr>
<td>&gt;3 Comorbid conditions</td>
<td>1.75</td>
<td>1.26, 2.43</td>
</tr>
</tbody>
</table>

*Adjusted for age, gender, cancer knowledge, education, Medigap, health care, “provider explained things in a way you can understand” and comorbidities

Colorectal endoscopy in past 10 years
Males (n = 267)*

<table>
<thead>
<tr>
<th></th>
<th>Odds Ratio</th>
<th>Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>2.75</td>
<td>1.11, 6.78</td>
</tr>
<tr>
<td>&gt;3 Comorbid conditions</td>
<td>2.19</td>
<td>1.08, 4.11</td>
</tr>
</tbody>
</table>

*Adjusted for age, education, Medigap, health care, “provider explained things in a way you can understand” and comorbidities

Colorectal endoscopy in past 10 years
Females (n = 773)*

<table>
<thead>
<tr>
<th></th>
<th>Odds Ratio</th>
<th>Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer knowledge</td>
<td>0.31</td>
<td>0.10, 0.95</td>
</tr>
<tr>
<td>Education &lt;HS</td>
<td>0.60</td>
<td>0.35, 0.95</td>
</tr>
<tr>
<td>Medigap</td>
<td>1.40</td>
<td>1.11, 2.44</td>
</tr>
<tr>
<td>Regular provider</td>
<td>2.09</td>
<td>1.07, 4.08</td>
</tr>
<tr>
<td>Access to specialty care</td>
<td>3.43</td>
<td>1.38, 8.60</td>
</tr>
<tr>
<td>&gt;3 Comorbid conditions</td>
<td>1.67</td>
<td>1.16, 2.49</td>
</tr>
</tbody>
</table>

*Adjusted for age, cancer knowledge, education, Medigap, health care, comorbidities

Summary

- In this insured population, colorectal screening endoscopy remains functionally inaccessible for some African American older adults
- Screening determinants vary by gender; however, gender-based patterns may reflect, in part, the relatively small sample of males
- Screening behavior is associated with cancer knowledge and beliefs, especially among women. However, this relationship appears to be complex

Evidence-based Interventions

- Get recommended screening tests
- Be tobacco free
- Be physically active
- Eat a healthy diet
- Stay at a healthy weight
- Take preventive medicines if needed

Preventive care strategies for men

http://www.preventiveservices.ahrq.gov 05-05-09
Screening tests for men (I)

- Calculate body mass index (BMI)
  - Use NHLBI BMI calculator: http://www.nhlbisupport.com/bmi/
- Check cholesterol regularly, starting at age 35
  - Individuals may begin screening before age 35, if they have
    - Diabetes
    - Hypertension
    - Family history of heart disease
    - Smoking
- Check blood pressure at least every 2 years
- Begin testing for colorectal cancer starting at age 50
  - May need to be screened earlier, if there is family history
- Prostate Cancer Screening (informed decision-making)
  - Prostate-specific antigen (PSA) test or digital rectal examination (DRE)

Screening tests for men (II)

- If an individual has HTN or high cholesterol, test for diabetes
- Ask if the person has felt "down," sad, or hopeless over the last 2 weeks or has felt little interest or pleasure in doing things
- Encourage men to talk to clinicians about
  - Being screened for depression
  - Whether they should be tested for gonorrhea, syphilis, chlamydia, or other sexually transmitted infections.
- Screen for abdominal aortic aneurysm once
  - If age 65 to 75 and have smoked 100 or more cigarettes
- Encourage men to take checklist to their doctor's office

Screening tests for men (III)

- Test for HIV, if:
  - Have had sex with men since 1975
  - Have had unprotected sex with multiple partners
  - Have used or now use injection drugs
  - Exchange sex for money or drugs or have sex partners who do
  - Have past or present sex partners who are HIV-infected, are bisexual, or use injection drugs
  - Being treated for sexually transmitted diseases
  - Had a blood transfusion between 1978 and 1985

Daily steps to health

- Don’t smoke
  - Ask doctor (or nurse) about quitting
  - 1-800-QUITNOW
  - http://www.smokefree.gov
- Be Physically Active
- Eat a Healthy Diet
- Stay at a Healthy Weight
- Drink Alcohol Only in Moderation

Medicines to Prevent Disease?

- Aspirin may be useful if
  - Older than 45
  - Younger than 45 and:
    - Have high blood pressure
    - Have high cholesterol
    - Have diabetes
    - Smoke
- Adult Immunizations
  - Flu shot every year starting at age 50
  - If younger than 50, men should ask doctor whether they need a flu shot
    - Consider certain chronic conditions (asthma, COPD, immunocompromised, etc.)
  - Pneumonia shot once after 65th birthday. If younger than 65, individuals should ask their clinician whether they need a pneumonia shot

Interventions should be culturally targeted
African-American Men And Prostate Cancer

Did you know that

- African-Americans have the highest rates of prostate cancer?
- African-Americans are more likely than men from other racial and ethnic group to die from prostate cancer?

Source: American Cancer Society

Dr. Benjamin Carson, Neurosurgeon and Prostate Cancer Survivor

Women... Spread the Good News!

Educate – Inform the men in your life about prostate cancer (fathers, brothers, uncles, grandfathers, EVERYONE).

Encourage– Ask the men in your life to speak to a health care provider about prostate cancer screening and decide if it is right for him.

Bishop Desmond Tutu, Prostate Cancer Survivor

Dusty Baker, San Francisco Giants Manager and Prostate Cancer Survivor

Harry Belafonte, Actor and Prostate Cancer Survivor

Bishop Desmond Tutu, Prostate Cancer Survivor
Gender-related health disparities have many causes. The distribution of risk factors for disease varies by gender. Some risk factors are not modifiable; however, several modifiable risk factors for men are known. Evidence-based interventions are available, that can be implemented in the context of office-based primary care, as well as community-based programs. Delivery of such evidence-based interventions should be culturally targeted.

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