Trenches, Benches, Bedsides and Wrenches: A Trans-disciplinary Attack on Cancer Disparities in Washington DC
Heart of Our Efforts:
Eliminating Cancer Disparities

- The District of Columbia has some of the highest cancer mortality rates in the United States.

- Because of the high minority population, and extensive health care barriers, cancer disparities are particularly severe.

- It is an acute microcosm of the national challenge of the unequal burden of cancer.

- The problem is complex and multi-factorial
Scope of Our Challenge

- Small city with big city health challenges (pop 550,000).
- High minority population.
  - 58% Black, 27% non-Hispanic Caucasian, 10% Hispanic
Framing the Problem: Cancer in DC

- Approx 2800 new diagnoses and 1,200 cancer deaths per year
- Add in Southern Maryland and Northern Virginia: numbers escalate quickly

Major negative factors:
- Lack of medical “home” (inadequate primary care)
- Screening difficulties
- Information Deficit
- Fragmented health insurance system
  - large % un-insured or underinsured
  - 17% of blacks, 35% of Hispanics are uninsured
- Poverty
- Fear and medical mistrust
- Cultural barriers
- Health care labyrinth: complicated array of clinics, hospitals etc.
- Geo-medical isolation East of the Anacostia River
Necessity of Bringing PH to the Community in Need

A Real Barrier that is both physical and metaphorical:

The Anacostia River
Framing the Geo-medical isolation Problem: Mammography in DC

- Is there a lack of medical care or screening? NO
  - 11 hospitals, 4 major medical centers, several networks of community clinics

- Are resources distributed evenly with respect to geography? NO
  - Mammography screening facilities not available in poverty areas:
    - Total of 19 facilities: 5 not open to public; for 14 remaining, 13 in NW DC
    - Until 2009 only 1 in SE, but West of the Anacostia River.
Breast Cancer in DC: Framing the Problems

- **OBSERVATIONS:**
  - Approximately 600 DC women diagnosed per year; 120 die
  - Strikes white women more frequently than others, but black women twice as likely to die
  - Black women & Latinas present at earlier ages, & with more aggressive disease, than whites
  - Often minority women with overt symptoms will not seek medical care
Goal: to create and implement a DC Cancer Plan

A voluntary group of over 70 cancer stakeholders: hospitals, cancer centers, advocates, consumers, community groups, government agencies (DC DOH, CDC).
Patient navigators work with cancer patients to “navigate” the health care system and access appropriate social and financial services. A primary function of the navigator is to establish and help maintain communication between patients, their families, physicians and the health care system.
To Test the Hypothesis that Patient Navigation will:
- Decrease the time interval between suspicious finding and diagnostic resolution
- Decrease the time interval between diagnosis to initiation of treatment

To evaluate Cost Effectiveness in terms of costs per quality-adjusted year of life saved.

DC PNRP includes assessment of factors that mediate the intervention effects (coping styles, perceptions of health care providers, attitudes, fatalism etc). DC PNRP is focused on Breast Cancer.
Patient Recruitment Sites: Navigators at each site!

- GW Cancer Institute (PI and administration site)
- GW Breast Care and Imaging Center
- Georgetown/MedStar Capital Breast Care Center
- Howard University Cancer Center
- Washington Hospital Center (MedStar) “Preventorium”
- Washington Hospital Center (MedStar) Breast Center
- Providence Hospital
- Nueva Vida
- DC Area Health Education Center
- Unity Clinics
An Important Lesson Learned

Disparities range across the health care continuum

- The same barriers that interfere with access to quality cancer Treatment, also interfere with Cancer Prevention and Control, utilization of available Screening, access to and utilization of Support Services (support groups, palliative care, end of life care), and long term Survivorship.
Longitudinal Patient Navigation

Patient Navigation

Screening Navigation
- Initial Contact

Treatment Navigation
- Screening, Abnormal finding, Diagnostic Resolution, Treatment, Palliative Care, End of Life Care
- Eliminate critical delivery gap for populations experiencing disparities
- Provide seamless transition from screening through treatment and survivorship.

Survivorship Navigation
- Education

Rehabilitation
- Outreach

Abnormal results/Diagnosis
- Diagnosis → Treatment → Survivorship
Longitudinal Network Patient Navigation

Development of a city-wide integrative model to reduce breast cancer disparities in Washington, D.C.

by Steven P. Paterno, PhD; Nancy L. Lashekes, MPH; Lisa M. Alexander, EdDr; Paul H. Levine, MD; Heather A. Young, PhD; Heather J. Hoffman, PhD

In Brief
The George Washington University Cancer Institute (GWCI) is a comprehensive academic cancer center whose mission includes understanding and eliminating cancer disparities. To combat breast cancer disparities in Washington, D.C., GWCI instituted the D.C. Citywide Patient Navigation Research Program (DC-PNRP)—one of nine national PNRP sites funded by the National Cancer Institute (NCI) and the American Society of Clinical Oncology (ASCO) to evaluate the effectiveness of patient navigation. The Washington, D.C., site is unique in its “network navigation” approach.

Here’s how our innovative model works: Navigators from a broad partnership of affiliated and nonaffiliated clinical and community sites are trained to work collaboratively within a citywide network to enroll patients in the study and assure each patient receives timely, quality care. In the process, we encountered and overcame a number of administrative, operational, and IRB-related difficulties inherent to a complex network of non-affiliates. Three strategies help us enhance care coordination and assure appropriate referral strategies between community outreach, screening, and treatment sites: 1) frequent staff training, 2) efforts that promote increased communication between navigators, and 3) a method for sharing information about community resources.

Our experience suggests that navigation services positioned at various points in the healthcare system and linked to one another through citywide networks of case coordination may increase patient satisfaction and improve adherence to lifesaving treatments. After implementing the DC-PNRP, we broadened the original treatment-oriented navigation model to create a “longitudinal navigation” paradigm that follows the patient from outreach through survivorship.

Over the last 10 years, breast cancer mortality rates for African-American women living in the nation’s capital have dramatically improved. Increased screenings and advances in treatment have had significant impact, reducing the mortality rates from 9.8 (per 100,000) in 1995 to 3.1 in 2003. Despite these improvements, disparities persist. Breast cancer mortality rates among white women (20.7) remain markedly lower than those of their local African-American counterparts. Mortality rates from breast cancer for Latinos in the Washington, D.C., metro area (DC) are unavailable, but given the growth in this population, the actual number of deaths is expected to rise.2

Local rates for breast cancer incidence (cases per 100,000 population per year) are also higher than the national average among white (145 vs. 120), African-American (134 vs. 112), and Hispanic (103 vs. 89) women. Because of these higher-than-average incidence rates and persistent disparities in mortality rates, increased efforts to identify and overcome barriers to care have grown in recent years. In 2006, almost 82 percent of all women living in DC over 40 years of age report having a mammogram during the last two years.3

In 2001 a publicly funded safety-net insurance program for low-income DC residents was implemented and has helped to lower the number of uninsured (9 percent compared to 15 percent nationally), but among these individuals, the burden falls disproportionately on African Americans (56 percent) and Hispanics (23 percent).4 A 2008 report on healthcare access in DC found that mammography screening rates were lowest among uninsured women over age 50 demonstrated significant differences (65 percent vs. 85.6 percent). In wards 7 and 8, a geographically isolated quadrant of DC, where rates of concentrated poverty, low educational achievement, and uninsured residents are highest, screening continues to lag behind other wards in the city. Until November 2008, only one approved, functional mammography facility existed in these neighborhoods.5 However, this facility is north of the Anacostia River, the geographic and psychosocial barrier that isolates this quadrant of DC with the highest poverty rates. Studies have shown a direct correlation for statewide mammography rates with the proximity of facilities, indicating that the rate of screening depends on availability of screening services.6

The Importance of Access to Care
While most attempts to reduce cancer disparities focus on screening, much of this problem is also attributable to disparities in access to optimal treatment.7 Many of the city's hospitals and cancer centers are clustered close to each other and geographically remote from high poverty areas, which magnifies the perception of concentrated poverty and further marginalizes the economically disadvantaged. Among the poor, many people also have language barriers and are unaware that they qualify for funds or healthcare services.8 In DC, the following major negative factors influencing cancer control have been identified:

- Lack of a medical “home” (inadequate primary care)
- Difficulties in accessing screening services
- Health information and education deficits
- A fragmented healthcare system
- A large proportion of uninsured or underinsured
- High poverty rates
GW Mobile Mammography Partnership

2500 Digital Mammograms per year
Twice per month in Anacostia
DC has one of the highest prostate cancer mortality rates in the nation.

- Approximately 600 new diagnoses per year
- Approximately 80 disease-specific deaths
- Black men present at an earlier age with more aggressive disease:
  - Strong stage and grade escalation.
The GWCI’s Cancer Outreach Program

Community-by-Community Cancer Control Campaign

- **Cancer Wellness Initiatives in the Community:**
  - Workplace Cancer Wellness Initiative
  - Congregational Cancer Wellness Initiative
  - Neighborhood Cancer Wellness Initiative
Cancer Outreach Programs

- Congregational Cancer Wellness Initiatives
  - Educational and screening programs with Health Ministries in local Churches and Community Groups.
Cancer Outreach Program

Neighborhood & Workplace Cancer Wellness Initiative

Covenant Baptist Church
Men's Day Celebration
"Stepping Up To The Plate...Not My Brother, But Me"

Issues Impacting Men's Health

The George Washington University Medical Center
Washington, DC

FREE Prostate Cancer Prevention Screening

Prostate Cancer Screening Performed By:
Amador R. Bueno, M.D., Department of Urology
The Mount Sinai Cancer Program, Department of Surgery
The Tisch Cancer Institute, Mount Sinai Medical Faculty Associate

WHEN?
Saturday, October 21, 2006
11:00 a.m. - 1:00 p.m.

WHERE?
St. Michael's Church
1244 Malcolm Drive

Why?
1. African American men are 30% more likely to have prostate cancer
2. African American men are 30% more likely to have higher grades of prostate cancer
3. African American men are 30% more likely to have prostate cancer that has spread to other parts of the body
4. African American men are 30% more likely to die of prostate cancer than white men
5. African American men are 30% more likely to die of prostate cancer than white men
6. African American men are 30% more likely to die of prostate cancer than white men
7. African American men are 30% more likely to die of prostate cancer than white men
8. African American men are 30% more likely to die of prostate cancer than white men
9. African American men are 30% more likely to die of prostate cancer than white men
10. African American men are 30% more likely to die of prostate cancer than white men

The GW Cancer Institute
The George Washington University

Omaha 5th Ward Presbytery, Inc.

ALC’06
September 1-9

THE GW CANCER INSTITUTE
Through this partnership,

- ...we have worked with.....
- 64 churches;
- 21 business government worksites;
- 7 fraternal organizations;
- 14 African American barbershops;
- 25 community based “neighborhood” organizations;
- DC Department of Health events

Encouraged “face-to-face” over 5000 DC residents from minority populations to understand the importance of cancer prevention and early detection (2007-2010).
Media Partnership

- Messaging Campaign: “Get in the Game”
  - [www.gwcancer.com](http://www.gwcancer.com)
  - **Empowering women** to positively impact the health care behavior of themselves and the men in their lives.

  **Spokespersons:**
  Karl Hobbs, Coach of the GW Colonials Men’s Basketball Team, and his wife Joann.
Screening Programs: “Don’t Forget”

- www.gwcancer.com

Empowering women to positively impact the health care behavior of themselves and the men in their lives.
Cancer Outreach Program

Outcome: ~100 men screened per month!

- 73% African American
  - 16% had a PSA > 4
  - 11% had abnormal DRE (total requiring follow-up = 27%)
  - All men seen were referred by a urologist
  - 33% of those screened were recommended for biopsy
  - 55% of those had cancer
- Cancer Care Offered to all, regardless of insurance status
  - Four were initially uninsured but w/ Navigation only one patient was completely uninsured.
- To date nearly 5000 men screened (both PSA and DRE), for free.
ARRA Funding to GWCl : Hub for Region 1

Cancer Health Disparities Geographic Management Program (GMap)

GMap is a regional strategy to build critical “hubs” for support and efficient management of cancer health disparities research, training and infrastructure programs.

BMap
Biospecimen Science

IMap
Bioinformatics

CTMap
Clinical Trials

EMap
Advanced & Emerging Technologies

Goals
Electives

Region 1: GW, GT, Hopkins, U. MD, Howard, UDC, Bowie State, Morgan State, Hampton, UVA, and MCV
TRENCH TO BENCH RESEARCH

- Genomics of Cancer Disparities

The GW Cancer Institute
The George Washington University Medical Center

Howard University Cancer Center

National Human Genome Center

McCormick Genomics Center
Gene profiles derived from prostate biopsy tissue: Hierarchical Clustering Analysis comparing African American and Caucasian samples
Transcriptome Co-Expression Mapping

Prostate Cancer Differential Gene Networks in African American Men
Genomics of Breast Cancer Disparities

A. Normal AAs vs. CAs
B. Cancer AAs vs. CAs
C. AAs (cancer vs. normal)
D. CAs (cancer vs. normal)
In a 2006 report, The Institute of Medicine (IOM) noted that many cancer survivors become lost in the transition from cancer patient to cancer survivor.

A key component of follow-up care for cancer survivors is development of individualized survivorship care plans...

"...and interventions that increase adherence to the plan....."
We have limited knowledge and many questions about the health status, functioning, and quality of life for most of those who are post-treatment.

- What are the most common late effects of treatment?
- Who is most at risk for late effects and can they be protected?
- What % of survivors will have recurrent or second malignancies?

- Who should be following these survivors to detect disease recurrence?
- Is there a role for Patient Navigators?
- What constitutes "optimal surveillance" and what is the cost of such follow-up care?
- Do medical, psychosocial or behavioral interventions increase QOL and/or reduce morbidity in these populations?
Long-Term and Late Effects

**PHYSICAL**
- Neurocognitive problems
- Premature menopause
- Gastrointestinal system dysfunction
- Cardiorespiratory system dysfunction
- Sexual impairment
- Infertility
- Chronic fatigue and pain syndromes
- Second malignancies

**PSYCHOSOCIAL**
- Fear of recurrence
- Sense of isolation
- Anxiety and depression
- Employment and insurance discrimination
- Altered body image
- Relationship difficulties.
Public Health Implications

- Providing post-treatment services for current and future populations will be a challenge for cancer centers

- Large population of cancer survivors: 12 million and growing

- Who are the people who care for cancer survivors? And what does the workforce look like?
  - Oncologist shortage
  - Nursing shortage
  - Primary care shortage
Policy Implications

- What aspects of navigation and survivorship care can be reimbursed?
- How to conduct robust health services research to justify new payments by insurance?
- How to create policies to deal with workforce shortage when cancer patient and survivor population continues to expand?
A Navigation, Survivorship and Policy Nexus at GWCI

- caSNP

www.gwumc.edu/casnp
GWCI caSNP

- Trainings
- Cancer Survivorship Research & Health Disparities Symposium: October 15, 2009
- Policy: National Health Reform Analysis
To help fill the gap of information on the distribution of prices for cancer care and inform patients, consumers, and third-party payers about the trade-offs in making health care choices on the basis of price or in terms of potential quality of care.

To identify the dispersion of prices, the impact of insurance on prices, and the role of outcomes aggregated to the level of hospital, by breaking down the pricing of surgical procedures for cancer treatment. To examine the relationship between pricing and outcomes of three procedures, including colectomy (colon resection), lung surgery (resection), and a uterine (endometrial) hysterectomy.
Model for Analysis of Population Health and Health Disparities

- **Social Conditions and Policies**
  - Culture, Norms, Racism, Sexism
  - Discrimination, Public Policies, Poverty

- **Institutions**
  - Health Care System, Families, Churches
  - Community-based organizations, Legal System, Media, Political System

- **Social/Physical Context**
  - Collective Efficacy, Social Capital
  - Access to Resources, Social Cohesion
  - Segregation, Neighborhood Disadvantage
  - Neighborhood Stability

- **Social Relationships**
  - Social Networks, Social Support
  - Social Influences, Social Engagement

- **Individual Risk Factors**
  - Age, SES, Education, Obesity
  - Tobacco Use, Acculturation
  - Diet, Race

- **Biologic/Genetic Pathways**
  - Allostatic Load, Metabolic Processes
  - Physiological Pathways, Genetic Mechanisms

**Fundamental Causes**

**Social and Physical Context**

**Disparate Health Outcomes**

**Individual Demographic and Risk Factors**

**Biologic Responses and Pathways**

Adapted from Warnecke et al., AJPH 2008
The New Science of Cancer: Cells to Society
Man's inhumanity to man is not only perpetrated by the vitriolic actions of those who are bad. It is also perpetrated by the vitiating inaction of those who are good.

--- Martin Luther King, Jr.
The GW Cancer Institute

An comprehensive cancer center dedicated to excellence in cancer care, cancer research and education, and to understanding and eliminating cancer disparities.