THE ROOT OF PROSTATE CANCER
IN AFRICAN AMERICAN MEN

Folakemi T. Odedina, PhD
Professor & Director
US Fulbright Scholar (Nigeria)
Florida A&M University
folakemi.odedina@famu.edu
Co-Investigators

- Olufemi Ogunbiyi, MB.BS, FWACP
- Flora Ukoli MBBS., DPH., MPH.

Presenter

- Yussif Dokurugu M.A., MPH.
Presentation Overview

- Background
- The Problem
- Study Question
- Methods
- Results
- Discussion
Background

- Although prostate cancer affects men regardless of their racial group, a disproportionate burden is experienced by African American men.
  - African American men are 2.4 times more likely to die of prostate cancer compared with White men.
  - They also have the highest incidence of prostate cancer compared to other racial/ethnic groups in the United States.
The Problem

- Based on the report of the Descriptive Epidemiology Group of the International Agency for Research on Cancer (IARC) ….
  - Worldwide prostate cancer statistics for African men in Nigeria, Senegal, Gambia, Sierra Leone, Ivory Coast, Ghana, Cameroon, and Angola provide an interesting observation compared to African American men (figures 1 and 2).
Figure 1. Age-standardized incidence rates for prostate cancer

![Age-standardized incidence rates for prostate cancer](image)

- Angola: 12.7
- Cameroon: 25.3
- Gambia: 4.7
- Ghana: 19.3
- Nigeria: 23.3
- Senegal: 7.5
- Sierra Leone: 19.3
- US: 124.8
- US Black, Seer 2001: 234.1

Age-standardized incidence per 100,000
Figure 2. Age-standardized mortality rates for prostate cancer

![Bar chart showing age-standardized mortality rates per 100,000 for various countries, with the US having the highest at 66.4, followed by Senegal, Nigeria, and others.]
For example:

- Compared to Nigerians, African Americans are more than 10 times likely to develop prostate cancer and 3.5 times likely to die from the disease.

Can we conclude that prostate cancer incidence among African American men in the United States is higher than that seen in other Black men sharing the same genetic characteristic?
Our premise...

- The true prostate cancer rates for West Africans may be underestimated since there are no data available on cancer incidence and mortality for most of the West African countries.
Study Question….

- Does the prostate cancer disparity experienced by African American men exist among the original source population for African Americans?
Methods

- A case analysis of Nigeria, a country that supplied about 35% of the slaves during the Trans – Atlantic slave trade.
  - Using the global perspective, the authors reviewed prostate cancer burden among Nigerian men in comparison to African American men.
  - Data sources were from the World Health Organization (WHO) and reported hospital records in the literature.
Results

- Contrary to the global ranking, several published studies indicate higher incidence of prostate cancer in Nigerian men ...
- Magoha GA. Epidemiological and Clinical aspects of Incidental Carcinoma of the Prostate in Africans. Experience at the Lagos University Teaching Hospital, Lagos and the Kenyatta National Hospital. Nairobi, East Afri Med J. 1995 May; 72(5): 283-287.
Dawan D, Rafindadi AH, Kalayi GD. Benign Prostate Hyperplasia and Prostate Carcinoma in Native Africans. BJU Int 2000; 85: 1074 -1077.


Discussion

- Understanding the primary reasons for the prostate cancer disparity experienced by African American men is essential for successful intervention programs to eliminate this disparity.
- Available evidence seems to indicate that this disparity may be shared by other Black men of African descent, especially those with origins from West Africa.
- Unfortunately, the cancer data available in most African countries do not permit valid global comparisons of prostate cancer incidence and mortality.
- At this time there is no conclusive evidence on prostate cancer risk in African Black men.
From the case analysis of Nigeria, it appears that the incidence rates based on hospital-series data may be similar to rates in the United States data for African American men.

To fully understand the role of environment and genetics in prostate cancer disparity as well as begin to successfully address this disparity, more studies need to be conducted among indigenous West and Central African men.
Next Step

Future study should explore prostate cancer burden among Black men of similar ancestral origin to African Americans using common methods and definitions to allow a world view perspective of prostate cancer disparity in Black men.
Acknowledgement

- Travel support was provided by the Department of Defense CDMRP Research Program W81XWH-04-1-0326.
Questions