

Award Number: W81XWH-22-1-0290

TITLE: Examining the Relationship between Community History and Prostate Cancer Disparities

PRINCIPAL INVESTIGATOR: Dr. Charnita Zeigler-Johnson, PhD,

CONTRACTING ORGANIZATION: The Research Institute of Fox Chase Cancer Center 333 Cottman Avenue, Philadelphia, PA 19111

REPORT DATE: SEPTEMBER 2023

TYPE OF REPORT: Annual

PREPARED FOR: U.S. Army Medical Research and Development Command
Fort Detrick, Maryland 21702-5012

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REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

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1. REPORT DATE (DD-MM-YYYY) SEPTEMBER 2023			2. REPORT TYPE Annual			3. DATES COVERED 15AUG2022 - 14AUG2023			
4. TITLE AND SUBTITLE Examining the Relationship Between Community History and Prostate Cancer Disparities						5a. CONTRACT NUMBER W81XWH-22-1-0290			
						5b. GRANT NUMBER W81XWH-22-1-0290			
						5c. PROGRAM ELEMENT NUMBER			
6. AUTHOR(S) Dr. Charnita Zeigler-Johnson, PhD E-Mail: Charnita.Zeigler-Johnson@fcc.edu						5d. PROJECT NUMBER			
						5e. TASK NUMBER			
						5f. WORK UNIT NUMBER			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) The Research Institute of Fox Chase Cancer Center 333 Cottman Avenue Philadelphia, Pennsylvania 19111 E-Mail: osr@fcc.edu						8. PERFORMING ORGANIZATION REPORT NUMBER			
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Medical Research and Development Command Fort Detrick, Maryland 21702-5012						10. SPONSOR/MONITOR'S ACRONYM(S)			
						11. SPONSOR/MONITOR'S REPORT NUMBER(S)			
12. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution unlimited									
13. SUPPLEMENTARY NOTES									
14. ABSTRACT Background: The goal of this study is to examine the role of community (neighborhood) history of structural racism (redlining, gentrification, lending bias, and trajectories of poverty) on prostate cancer outcomes. Methods: We will take a novel life course approach in conducting linkage of cancer registry data (southeastern PA, N~20,000) to LexisNexis residential history address data to provide characteristics of census tracts where patients lived in the past. We will use these data to examine cumulative residential exposures in multilevel risk modeling for prostate cancer outcomes. A qualitative analysis with community stakeholders will identify the strengths, weaknesses, opportunities, and threats (SWOT) to improving the health of prostate cancer patients. Results: The study's initiation was delayed because of the Principal Investigator's transfer to a new institution. However, we have completed IRB approval and are working on reliance agreements for the partnering institutions. We also requested PA Cancer registry data. Conclusions: The information gained from this study will guide integration of residential history in cancer disparities research.									
15. SUBJECT TERMS Prostate cancer, neighborhoods, structural racism, redlining, gentrification, disparities, LexisNexis, SWOT analysis									
16. SECURITY CLASSIFICATION OF:						17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON	
a. REPORT	b. ABSTRACT	c. THIS PAGE	USAMRDC						
U	U	U	UU	8	19b. TELEPHONE NUMBER <i>Include area code</i>				

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INTRODUCTION:

Prostate cancer (PCa) rates show more than double the mortality for Black men compared to other race/ethnic groups, making this one of the greatest racial disparities in cancer. Although there are documented disparities in PCa incidence and mortality related to where people live, it is unclear how the residential mobility of patients contributes to their PCa outcomes. Residential environments vary greatly by race and socioeconomic (SES), and they change over time. Little is known about how longitudinal exposures to neighborhood risk factors captured years before a cancer diagnosis contribute to PCa disparities along the cancer care continuum. Neighborhood reinvestment and gentrification processes have led to complicated and varied health outcomes for vulnerable populations. The purpose of this study is to take a novel life course approach to address the role of residential history on PCa disparities. We propose an innovative linkage of PA cancer registry data to LexisNexis residential history address data to provide characteristics of census tracts where patients lived in the past. We will use 10 years of cancer registry data representing incident PCa patients from Southeastern Pennsylvania (PA) (N~20,000) to determine the relationship between longitudinal neighborhood characteristics (including exposure to historic redlining) and PCa outcomes at critical points along the cancer care continuum. We will also use these data to investigate best practices to examine residential histories in risk modeling for PCa outcomes. Multilevel regression models will be conducted to evaluate independent associations of multi-level factors with PCa outcomes. A qualitative analysis with community stakeholders will identify strengths, weaknesses, opportunities, and threats (SWOT) to improving the health and care of prostate cancer patients living in different parts of the city. The information that we learn from this study will help us to understand the role of community and residential histories in cancer disparities, develop future studies that examine how patient factors and healthcare may yield different outcomes based upon the context of residential experience, and develop novel community-driven strategies for reducing PCa disparities in diverse populations.

KEYWORDS:

Prostate cancer, neighborhoods, structural racism, redlining, gentrification, disparities, LexisNexis, SWOT analysis

ACCOMPLISHMENTS:**Statement of Work – Year 1**

We are ~ one year behind schedule in our statement of work because of a delayed transfer of the award from Thomas Jefferson University to Fox Chase Cancer Center (the PI changed institutions). The transfer was completed August 2023.

- Major Goal 1: Obtain IRB Approvals
 - IRB approvals have been obtained, and we are in the process of completing all approvals for reliance agreements. The reliance agreement for Drexel University is completed and approved by the DOD. The reliance agreement for Temple University is completed and has been sent to the DOD for approval. The process for issuing a reliance agreement for Thomas Jefferson University is underway.
- Major Goal 2: Obtain PA Cancer Registry Data
 - We have submitted an application to request 10 years of data on incident prostate cancer patients from the PA cancer registry. We are waiting for that request to be completed.
 - In addition, we have initiated conversations with LexisNexis to obtain residential history data. Fox Chase Cancer Center will have a contract with the company for use of the data.

What were the major goals of the project?

- Major Goal 1: Obtain IRB Approvals
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- Major Goal 2: Obtain PA Cancer Registry Data
 - We have submitted an application to request 10 years of data on incident prostate cancer patients from the PA cancer registry. We are waiting for that request to be completed.
 - In addition, we have initiated conversations with LexisNexis to obtain residential history data. Fox Chase Cancer Center will have a contract with the company for use of the data.
- Major Goal 3: Conduct Quantitative Analysis
 - We are awaiting data from the PA Cancer Registry. We will begin assembling other data that will be merged with the cancer registry dataset in the coming months.
- Milestones:
 - Achieved: Application submitted to request PA Cancer Registry Data.
 - In Progress: Obtaining PA Cancer Registry Data. When the data are received, we will proceed with coding variables, and geocoding and mapping patient addresses. This study was delayed because of the transfer of award from Thomas Jefferson University to Fox Chase Cancer Center.

What was accomplished under these goals?

- We have completed IRB approval at the PI's institution and are in the process of completing Reliance Agreements for the collaborating institutions. We have submitted the application to request PA Cancer Registry Data and initiated conversations with LexisNexis representatives.
- We have not yet obtained PA Cancer Registry Data. This study was delayed because of the transfer of award from Thomas Jefferson University to Fox Chase Cancer Center.

What opportunities for training and professional development has the project provided?

Nothing to Report.

How were the results disseminated to communities of interest?

Nothing to Report.

What do you plan to do during the next reporting period to accomplish the goals?

We plan to obtain the cancer registry and LexisNexis datasets. We will complete all of the Reliance Agreements, initiate regular team meetings, and clean and prepare the data for statistical analyses.

IMPACT:

What was the impact on the development of the principal discipline(s) of the project?

Nothing to Report.

What was the impact on other disciplines?

Nothing to Report.

What was the impact on technology transfer?

Nothing to Report.

What was the impact on society beyond science and technology?

Nothing to Report.

CHANGES/PROBLEMS:

Changes in approach and reasons for change

Nothing to Report.

Actual or anticipated problems or delays and actions or plans to resolve them

The study was delayed by the award transfer to a new institution. The transfer was completed August 2023.

Changes that had a significant impact on expenditures

Nothing to Report.

Significant changes in use or care of human subjects, vertebrate animals, biohazards, and/or select agents

Nothing to Report.

Significant changes in use or care of human subjects

Nothing to Report.

Significant changes in use or care of vertebrate animals.

Not applicable.

Significant changes in use of biohazards and/or select agents

Not applicable.

PRODUCTS:

Nothing to Report.

Publications, conference papers, and presentations

Nothing to Report.

Journal publications.

Nothing to Report.

Books or other non-periodical, one-time publications.

Nothing to Report.

Other publications, conference papers, and presentations.

Nothing to Report.

Website(s) or other Internet site(s)

Nothing to Report.

Technologies or techniques

Nothing to Report.

Inventions, patent applications, and/or licenses

Nothing to Report.

Other Products

Nothing to Report.

PARTICIPANTS & OTHER COLLABORATING ORGANIZATIONS**What individuals have worked on the project?**

Name:	Charnita Zeigler-Johnson, Ph.D.
Project Role:	Principal Investigator
Researcher Identifier (e.g. ORCID ID):	0000-0003-2841-7755 (ORCID ID)
Nearest person month worked:	1
Contribution to Project:	Dr. Zeigler-Johnson has overseen the coordination of study sites, protocol development, and IRB approvals. She also submitted the application to request data from the PA Cancer Registry.
Funding Support:	DOD
Name:	Scott Keith, Ph.D.
Project Role:	Co-Investigator
Researcher Identifier (e.g. ORCID ID):	

Nearest person month worked:	1
Contribution to Project:	Dr. Keith assisted with protocol development.
Funding Support:	DOD

Has there been a change in the active other support of the PD/PI(s) or senior/key personnel since the last reporting period?

Nothing to Report (this is the first reporting period.).

What other organizations were involved as partners?

Nothing to Report.

Organization Name: N/A (PI's previous institution was the site of the original award.)

Location of Organization: N/A

Partner's contribution to the project N/A

Financial support;

In-kind support N/A

Facilities N/A

Collaboration N/A

Personnel exchanges N/A

and

Other. N/A

SPECIAL REPORTING REQUIREMENTS

COLLABORATIVE AWARDS: N/A

QUAD CHARTS: N/A

APPENDICES:

Inclusion Enrollment Report: The award modification was received on July 26, 2023, therefore no participants have been enrolled.