Dana-Farber Cancer Institute | The Jimmy Fund

# Opportunities for Care Redesign for vulnerable communities

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# Overview

- Introduction
    - Issues with Precision medicine
    - Role of the Academic Cancer Center

- Outreach Clinic interventions

- Unique opportunities

# ACCESS TO CARE

**Cancer diagnosis and treatment is complex.**

Medical oncology end user of a complex web of health experiences.
Primary care → Screening → Diagnosis → Treatment → Palliative/end of life care.

**The complexity goes beyond clinical, and extends to insurance, referral networks, and services.**

Patients with the most disease burden, have the most restrictive plans & need for services.

**Poor perception of cancer centers in communities of color.**

Look and feel, lack of consistent *clinical* navigation programs
Lack sustained *clinical* presence in communities.

Cancer care access matters, and the need for relevant, impactful, and inclusive high-quality cancer care for underserved* populations is imperative.

Excellent care and clinical trial access will bring high end patients

*BIPOC, elderly, Lower SES, LEP

# Lung Cancer Disparities in Molecular Testing

- EGFR
  - Early studies Asian > White  > Black (Leider et al, and Yang et al,)
  - Plethora of studies not matched for appropriate variables
  - Binary approach to non-binary variable

- Current State in NSCLC
  - ALK, ROS1, BRAF, EGFR and PD-L1 (2019)
  - Data presented at *ASCO revealed that 45% of patients get NGS  for NSCLC or have the commor mutations tested for.
  - Black patients were less likely to have comprehensive testing those are of tested are 2x more likely to be on clinical trials

  - Now FDA approved drugs for MET, KRAS G12c, and the RET drug was approved in 2020

Research

JAMA Oncology | Original Investigation

The Mutational Landscape of Lung Cancers From Black and White Populations

Joshua D. Campbell, PhD; Christopher Lathan, MD, MPH; Lynette Sholl, MD; Matthew Ducar; Mikenah Vega; Ashwini Sunkavalli; Ling Lin, PhD; Megan Hanna; Laura Schubert; Aaron Thorner, PhD; Nicholas Faris, MDiv; David R. Williams, PhD, MPH; Raymond U. Osarogiagbon, MBBS; Paul van Hummelen, PhD; Matthew Meyerson, MD, PhD; Laura MacConaill, PhD

Supplemental content

**IMPORTANCE** Lung cancer is the leading cause of cancer death in the United States in all ethnic and racial groups. The overall death rate from lung cancer is higher in black patients than in white patients.

**OBJECTIVE** To compare the prevalence and types of somatic alterations between lung cancers from black patients and white patients. Differences in mutational frequencies could illuminate differences in prognosis and lead to the reduction of outcome disparities by more precisely targeting patients' treatment.

**DESIGN, SETTING, AND PARTICIPANTS** Tumor specimens were collected from Baptist Cancer Center (Memphis, TN) over the course of 9 years (January 2004-December 2012). Genomic analysis by massively parallel sequencing of 504 cancer genes was performed at Dana-Farber Cancer Institute (Boston, MA). Overall, 509 lung cancer tumors specimens (319 adenocarcinomas; 142 squamous cell carcinomas) were profiled from 245 black patients and 264 white patients.

**MAIN OUTCOMES AND MEASURES** The frequencies of genomic alterations were compared between tumors from black and white populations.

**RESULTS** Overall, 509 lung cancers were collected and analyzed (273 women [129 black patients; 144 white patients] and 263 men [116 black patients; 120 white patients]). Using 313 adenocarcinomas and 138 squamous cell carcinomas with genetically supported ancestry, overall mutational frequencies and copy number changes were not significantly different between black and white populations in either tumor type after correcting for multiple hypothesis testing. Furthermore, specific activating alterations in members of the receptor tyrosine kinase/Ras/Raf pathway including *EGFR* and *KRAS* were not significantly different between populations in lung adenocarcinoma.

**CONCLUSIONS AND RELEVANCE** These results demonstrate that lung cancers from black patients are similar to cancers from white patients with respect to clinically actionable

*American Society of Clinical Oncology Annual meeting 2021 Bruno et al, Robert et al oral presentation*

# Cancer Center Networks

What is the role of the cancer center network

- Provide cancer center level care outside the cancer center
- Utilize the strength of the cancer center to improve outcomes
- Broaden access to clinical trials

Is this being accomplished? What are the barriers:

- Clinical Trials –inadequate support network (CRC's nursing rn's)
- Providers-one disease subspecialists developing investigator-initiated research. VS Community oncology and benign heme
- "Payor Mix"

The business arm of the cancer center interacts with the mission of the cancer center. Infrastructure is a problem

# Community Engagement

- Develop relationships with community
  - Durable, visible and without ask
  - Relationship must be of mutual benefit

- Establish trust
  - Entrée to community
  - Broker relationships
  - Cultural Humility

- Give back to community
  - Write community grants
  - Train staff/pipeline to jobs clinical, research, nursing, admin.
  - Sustain coalitions

Stay for the long haul. More than one problem/grant cycle

# Intervention Models Cancer Care Equity Program

# Unique Opportunities

## Clinical access innovation projects

Broaden partnerships with community centers, FQHC’s and academic centers across the state via community liaisons to increase awareness and access.

*Create interventions and measure impact*

## Community Facing navigation and internal navigation

Integrated navigation programs that link for sharing best practices. Limited centralized leadership likely needed. External navigation is community facing, (CCEP like) internal navigation is focused on internal processes.

*Honestly address clinical access*

## *Transdisciplinary Research focused on underserved patient population

Link throughout cross cutting all areas: clinical, translational, basic science, social science, and policy. This is an essential building block of the NCI designation

*Synergies with Dentists for oral health, HPV, and head and neck cancers.*

# Priorities and Timeline

## Community engagement/navigation

-Build clinical access paths for the community (PCP's, CHC's, FQHC's)

-Engage faith-based groups, large employers, community leaders and pols as part of COE

-Listen to catchment area communities and build a *bi-directional* sustainable relationship

-Invest in expanding the community facing navigation program

*"Leave the community better than you found it"*

## NCI CC's-Organizational structure/research alignment

-Build on existing strengths in basic sciences with link to emerging clinical strengths

-Focus on the health equity/disparities opportunities across the enterprise leading to authentic transdisciplinary research across all platforms

# Thoughts from an NCI session

Health Equity, Vol. 5, No. 1 | Consensus

Open Access

**Special Convening and Listening Session on Health Equity and Community Outreach and Engagement at National Cancer Institute-Designated Comprehensive Cancer Centers**

Patricia M. Doykos, Moon S. ChenJr., Karriem Watson, Vida Henderson, Monica L. Baskin, Sarah Downer, Lauren A. Smith, Neeraja Bhavaraju, Samantha Dina, and Christopher S. Lathan

Published Online: 26 Feb 2021 | https://doi.org/10.1089/heq.2020.0155

Health Equity, Vol. 5, No. 1 | Consensus

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**Recommendations from a Dialogue on Evolving National Cancer Institute-Designated Comprehensive Cancer Center Community Outreach and Engagement Requirements: A Path Forward**

Patricia M. Doykos, Moon S. ChenJr., Karriem Watson, Vida Henderson, Monica L. Baskin, Sarah Downer, Lauren A. Smith, Neeraja Bhavaraju, Samantha Dina, and Christopher S. Lathan

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A listening session was held in 2019 between 22 NCI designated cancer centers and NCI, with a focus on the new core grant requirements for COE and its potential impacts.

- NCI is interested in *measurable* impact on catchment areas
- Community outreach must go beyond education and start to deal with barriers to care
- Academic Medical Centers must promote and respect the work of its faculty that work in the space of health equity.

Doykos et al Health Equity 2021