Increasing Lung Cancer Screening Among African Americans in Chicago: A ‘Teachable Moment'

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• No relevant conflicts of interest for this presentation
Lung Cancer – Leading Cause of Cancer Death

 Image: American Cancer Society, 2021

<table>
<thead>
<tr>
<th>Cancer Site</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung &amp; bronchus</td>
<td>22%</td>
<td>22%</td>
</tr>
<tr>
<td>Prostate</td>
<td>11%</td>
<td>15%</td>
</tr>
<tr>
<td>Colon &amp; rectum</td>
<td>9%</td>
<td>8%</td>
</tr>
<tr>
<td>Pancreas</td>
<td>8%</td>
<td>5%</td>
</tr>
<tr>
<td>Liver &amp; intrahepatic bile duct</td>
<td>6%</td>
<td>4%</td>
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<tr>
<td>Leukemia</td>
<td>4%</td>
<td>3%</td>
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<tr>
<td>Esophagus</td>
<td>4%</td>
<td></td>
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<tr>
<td>Urinary bladder</td>
<td>4%</td>
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</tr>
<tr>
<td>Non-Hodgkin lymphoma</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>Brain &amp; other nervous system</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>All other sites</td>
<td>25%</td>
<td>26%</td>
</tr>
</tbody>
</table>

Image: American Cancer Society, 2021
Smoking, Lung Cancer, and Health Disparities

**Smoking**
- Rates are highest among:
  - **Race/Ethnicity:** American Indians and Alaskan Natives 26.1%, White 19.4%, Black/African Americans 18.3%, Hispanics 18%
  - **Education Status:** no diploma 27.1%, high school 21.7%, some college 20%, college degree 9.1%
  - **Poverty Status:** Below poverty level 26%, at or above poverty level 14%
- Cigarette advertising is targeted at minorities
- Minorities are least likely to be screened for smoking by primary care providers and receive smoking cessation resources

**Lung Cancer**
- Black/African Americans (AA):
  - AA men have the highest incidence and mortality of lung cancer
  - More likely to smoke longer in years but less cigarettes per day
  - More likely to smoke menthol (more addictive)
  - More likely to be diagnosed at a late stage
  - More likely to be diagnosed at a younger age
- Women are more likely to be diagnosed at a younger age with less smoking intensity compare to men

Race, Lung Cancer, & Life Expectancy Rates

Race/ethnicity Map of Chicago

Lung Cancer Mortality Rate

Life Expectancy Rate


Chicago Health Atlas: chicagohealthatlas.org
DNA & ZNA

DNA
Genetic Code

ZNA
DNA & ZNA

DNA
Genetic Code

ZNA
Zip Code
DNA & ZNA

DNA
Genetic Code

ZNA
Zip Code
Cancer Mortality Rates in Chicago

Chicago Health Atlas: chicagohealthatlas.org
Social Determinants of Health

Poverty Rate

Unemployment Rate

Low Food Access Rate

Severe Rent-Burdened Rate

Self-care Difficulty Rate

High School Graduation Rate

Neighborhood Safety Rate

Community Belonging Rate

Chicago Health Atlas: chicagohealthatlas.org
Lung Cancer Screening – Goal to diagnose lung cancer at an early stage to improve survival
Lung Cancer Screening

USPSTF and CMS Criteria

Annual low-dose chest CT

- Age 50-80 (50—77 for CMS)
- Smoking history >20 pack-years (one pack-year = smoking one pack per day for one year; 1 pack = 20 cigarettes)
- Individuals who currently smoke or quit within the past 15 years

Shared decision making visit (CMS mandated) and smoking cessation counseling
Lung Cancer Mortality and UI Health’s Service Area

- 24 community areas in the West and South-side of Chicago
- 465 bed hospital, 21 outpatient clinics, and a network of FQHCs (Mile Square)
- Lung Screening Program stated in 2015
Hybrid Lung Screening Workflow, UI Health

Provider (MD, APN, PA) Identified patient, meets criteria

Provider does Shared Decision Making Visit, Smoking Cessation, Orders Scan

LDCT Scan Performed

LungRADS 1 & 2 (Annual LDCT)

Results to Referring Provider who Follows up with Pt

LungRADS 3 (6 month LDCT)

Reviewed in Multidisciplinary Thoracic Tumor Board Conference

LungRADS 4 APRN involvement

Follow up: PET, Biopsy, Surgery, Pulmonary, Med or Rad Oncology

Data collected and submitted for ACR registry by coordinator
Comprehensive Lung Screening Program - Nurse Practitioner Led

High risk patient referred to the Comprehensive Lung Screening Clinic - Shared Decision Making visit to discuss program, assess eligibility, discuss lung cancer risk, and provide smoking cessation (In-person or telehealth visits)

Low-dose CT

Clinic visit for results and next steps

Next Low-dose CT ordered

Ongoing smoking cessation as needed

*Primary Care Providers are keep updated on results and outcomes

Multidisciplinary Thoracic Tumor Board
Follow up: CT, PET, Biopsy, Surgery, Pulmonary, Medical or Radiation Oncology

LungRads 4
Low-dose CT Results – A Teachable Moment

Nodule

Emphysema

Coronary Calcification
UI Health's Lung Screening Program

- Lung Screening population:
  - 70% African American, 19% White, 11% Hispanic
  - 70% Currently smoke
- 2.6% lung cancer detection rate
- >65% lung cancers are diagnosed at an early stage (stage 1 or 2)
UI Health - Establishing Partnerships for Lung Screening

Physician Partnerships
- Faculty meetings
- Resident and Fellow orientations
- Grand Rounds

Community Engagement
2021: 117 Cancer Center community events
- The Great American Smokeout
- Nobody Quits Like Chicago
- Cancer Screening Events – partnering with churches and community organizations
- Social media – Youtube, Facebook
- Linkage to care events
- WVON1690AM Talk Radio
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**Community Partnerships for Lung Screening**
- Partnerships other FQHCs
- Private physician offices
The Midwest Lung Screening Consortium

Rush
University Illinois Chicago
Advocate
NorthShore University Health System
The University of Chicago
Community Healthcare System
UnityPoint Health – Methodist
Northwestern
Palos Health
Silver Cross/Rush
Methodist Hospitals - Oncology Institute
AMITA Health
Northwest Community Healthcare
Franciscan Health
Swedish Covenant
Edward Elmhurst
Loyola University Medical Center
Presence Saints Mary and Elizabeth
DuPage Medical Group
Stroger

• Physicians, Nurse Practitioners, Nurses, lung screening coordinators, managers
Smoking Cessation
Another Teachable Moment

Smoking Cessation = Prevent Cancer

Smoking Cessation After a Cancer Diagnosis = Improve Outcomes

- May reduce the risk of dying by 30% to 40%
- Improve the body’s ability to heal and respond to therapy
- Lowers the risk of pneumonia and respiratory failure
- Lower the risk for second primary cancers

CDC; Cancer.net
Stigma – Addressing the Elephant in the Room

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Stigma, Explicit Bias, Implicit Bias = Health Disparities

• Current evidence suggests that stigma detrimentally affects psychosocial, communication, and behavioral outcomes over the entire cancer control continuum and across multiple levels.

• For many patients who are at high risk of or have received a diagnosis of lung cancer, the stigma can detrimentally affect:
  • Willingness to engage in screening for early detection
  • Delay seeking medical evaluation for presenting symptoms
  • Limit involvement in lung cancer treatment and survivorship care

Equity Starts with our Words

Use Person-First Language
- Lung Cancer Patient vs Patient with Lung Cancer

Eliminate Blame Language
- Patient Failed Treatment vs Treatment Failed Patient

End Stigma
- Smoker vs Person who smokes

Slide: Courtesy of Dr. Efrén J. Flores
THANK YOU

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