8th Annual Symposium on Global Cancer Research
Selected Oral Abstract Presentations Webinar

July 10, 2020

Moderated By:

Christopher Loffredo, PhD
Georgetown Lombardi Comprehensive Cancer Center

Linsey Eldridge, MPH
Center for Global Health, National Cancer Institute
8th Annual Symposium on Global Cancer Research
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NIH
Consortium of Universities for Global Health
8th Annual Symposium on Global Cancer Research
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Topic 1: Controlling cancer risk factors
Reducing dermal exposure to agrochemical carcinogens using a fluorescent dye-based intervention among subsistence farmers in rural Honduras

Purpose and Methods

**March 2017**
Registration, Consent, and Educational Skit
- 44 participants

**July 2017**
First Spraying Event
- 15 participants
  - 12 participants remaining
  - 3 new
  - 4 new

**Lost to Follow-up**
- 8 participants

**“Experienced”**
- 6 participants

**“Naive”**
- 7 participants

**October 2017**
Second Spraying Event
- 13 participants
- 45 new participants from 8 different villages

**October 2017**
Shower Facility Opens
- 70 participants

**Fluorescent tracer deposition on contaminated hand and foot.**

**Community chemical storage and decontamination facility.**
Results and Conclusion

Heat Map of Contamination by Body Segment.
*p < 0.05, pooled t-test.

Comparison of Mean Dermal Exposure Between Experienced vs. Naïve Participants

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Experienced (n=6)</th>
<th>Naïve (n=7)</th>
<th>Difference (95% CI)</th>
<th>p-value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>TVS</td>
<td>41.27</td>
<td>78.37</td>
<td>-37.10 (-66.26, -7.95)</td>
<td>0.02</td>
</tr>
<tr>
<td>CBA</td>
<td>11.28</td>
<td>17.49</td>
<td>-6.20 (-12.82, 0.41)</td>
<td>0.06</td>
</tr>
</tbody>
</table>

* using t-test with pooled variance
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Topic 1: Controlling cancer risk factors

Q&A

Moderator

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Topic 2: Cancer prevention interventions
Can we leverage HIV prevention programs for breast cancer interventions? *Preliminary findings from a study among Nigerian women working in the informal work sector*

Mojisola M. Oluwasanu\textsuperscript{1}, Yue Wang\textsuperscript{2}, Oladimeji Oladepe\textsuperscript{1}, Dezheng Huo\textsuperscript{2} and Olufunmilayo Olopade\textsuperscript{2}

\textsuperscript{1}Faculty of Public Health, College of Medicine, University of Ibadan

\textsuperscript{2}Center for Global Health, The University of Chicago, USA
Purpose and Methods

- Breast cancer (BC) is the leading cause of cancer-related deaths in Nigerian women\(^1\).
- Current BC prevention and screening programs in Nigeria are few, inaccessible, “one-off”, activities.
- Disproportionately lower BC screening practices have been reported among Nigerian women working in the informal work sector\(^2,3\).
- The huge proportion of Nigeria women in the informal work sector are artisans - a highly cohesive social network and the largest in Africa.
- The national HIV prevention program has been implemented for over a decade through the artisan groups with significant impact on preventive and screening behaviours.
- Integrating BC programs into the HIV prevention program may offer potentials to tap synergies and could lead to sustainable integrated interventions.

- *Study assessed BC knowledge, screening practices and feasibility of implementing integrated HIV and BC programs among artisans.*
- A cross-sectional study was carried out in three local government areas in Ibadan, Nigeria.
- Four hundred artisans selected through a multi-stage sampling technique were interviewed.
- Knowledge of BC and HIV were measured on a 14 and 8-item scales.
- HIV and Breast cancer screening behaviours and willingness to participate in an integrated HIV and BC intervention were assessed.
- Data was analyzed using descriptive statistics and inferential test.
Results and Conclusion

A quarter were aged ≥40 years and 64.8% had secondary level education or less.

Higher educational level and knowledge of BC signs and symptoms were significantly associated with increased BC screening (P<0.05).

Study findings have shown that artisans are willing to participate in integrated HIV and BC prevention programs. This will inform the development of an integrated intervention - cluster-randomized, type I hybrid effectiveness-implementation trial that tests a community-based, integrated HIV and BC intervention to improve breast health and HIV screening practices.

This can serve as a model with the potential to expand coverage, and reduce missed opportunities for early detection and treatment of BC and other non-communicable diseases.

Fig. 1: BC and HIV knowledge and screening behaviors

- Proportion who knew at least 7 of the 14 signs and symptoms of BC
- Proportion who knew at least 6 of the 8 modes of transmission of HIV

| Knowledge of BC | 32.8% |
| Knowledge of HIV | 92.7% |
| Ever screened by Clinical Breast Examination | 11.3% |
| Ever screened by mammography | 9% |
| Ever screened for HIV | 74% |
| Willingness to participate in integrated HIV&BC... | 95.5% |

<table>
<thead>
<tr>
<th>Amount respondents are willing to pay for bi-annual mammography</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;N5,000 ($16)</td>
</tr>
<tr>
<td>N5,000 ≤10,000 ($16≤$32)</td>
</tr>
<tr>
<td>N10,000 ($32)</td>
</tr>
</tbody>
</table>

References
Long-term lung cancer risk associated with prior chest radiograph and sputum cytological screening results in an Occupational Cohort in Yunnan, China

Presenter: Zheng Su
Corresponding Author: You-lin Qiao

National Cancer Center/Cancer Hospital,
Chinese Academy of Medical Sciences & Peking Union Medical College

2020.07
Purpose

The aim of this study was to investigate the lung cancer risk according to different screening results in an occupational screening cohort in China.

Method

A one-armed prospective lung cancer screening cohort study with chest radiography and sputum cytology was conducted in Yunnan, China, from 1992 to 1999. A total of 9,295 tin miners aged 40 years or older were enrolled in this study and follow up was ended on December 31, 2018. We stratified patients into four subgroups according to screening results to observe the risk of lung cancer death adjusting for other factors.
Results

![Graph showing survival probability over follow-up years]

Number at risk

<table>
<thead>
<tr>
<th>Double Negative</th>
<th>Sputum cytology Positive</th>
<th>Chest Radiography Positive</th>
<th>Double Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>7658</td>
<td>5816</td>
<td>4902</td>
<td>1532</td>
</tr>
<tr>
<td>6554</td>
<td>43</td>
<td>27</td>
<td>14</td>
</tr>
<tr>
<td>388</td>
<td>235</td>
<td>170</td>
<td>128</td>
</tr>
<tr>
<td>31</td>
<td>10</td>
<td>2</td>
<td>2</td>
</tr>
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<td></td>
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</tbody>
</table>

Adjusted HR

<table>
<thead>
<tr>
<th></th>
<th>Adjusted HR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sputum cytology Positive</td>
<td>3.70 (2.49, 5.49)</td>
</tr>
<tr>
<td>Chest Radiography Positive</td>
<td>2.76 (2.22, 3.42)</td>
</tr>
<tr>
<td>Double Positive</td>
<td>11.81 (7.23, 19.30)</td>
</tr>
</tbody>
</table>

Adjust for age at entry, sex, education, smoking status, arsenic level, radon level, history of lung cancer and BMI

Conclusion

Previous lung cancer screening history provides an opportunity for further risk stratifications of those who undergo lung cancer screening.
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Topic 2: Cancer prevention interventions

Q&A

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Topic 3: Cancer care and cancer control
Improving Access to Vitally Important Chemotherapy Treatments in Northern Nigeria through the African Access Initiative (AAI)

Presented at the 8th Annual Symposium on Global Cancer Research held in partnership between NCI's Centre for Global Health and the Consortium of Universities for Global Health on Friday July 10th 2020

Mohammed Faruk\textsuperscript{1}, Tajudeen Olasinde\textsuperscript{1}, Abdullahi Adamu\textsuperscript{1}, Analise LeJeune-Stodieck\textsuperscript{2}, Noah Hunthausen\textsuperscript{2}, Katy Graef\textsuperscript{2}, Jennifer Dent\textsuperscript{2}

\textsuperscript{1}: Ahmadu Bello University Teaching Hospital (ABUTH)
\textsuperscript{2}: BIO Ventures for Global Health (BVGH)
Driving Access in Northern Nigeria

Each year, 70,000+ Nigerians die from cancer

- Sustainable access to affordable, high-quality cancer drugs is needed to improve cancer outcomes in Nigeria
- Nigerian oncologists and hospital leadership convened to prioritize cancers and treatment regimens
- A request for proposals (RFP) was submitted to multinational pharmaceutical companies
- Companies responded with deeply-discounted prices
Driving Access in Northern Nigeria

AHMADU BELLO UNIVERSITY (ABU) & ABUTH
Led by ABU, 8 Northern Nigerian teaching hospitals are participating in the cancer drug access program.

Cancer treatment funding model
- Federal government
- Northern Nigeria governors

Central Bank of Nigeria
Cancer drug funds held in and disbursed from escrow account

Evaluation & Reporting
- Biobank for tissues & blood
- Databank for patient outcomes
- Adverse events reported to FMOH

Bio and databanks managed by ABU

41 cancer drugs & 8 cancers prioritized

RFP issued to 14 pharmaceutical companies

8 companies responded with reduced prices

Hospital-specific budget forecast for 2,116 cancer patients created

ABUTH cancer drug access agreements

2,116 Nigerian cancer patients receive treatment

Training and support from international partners
A descriptive analysis of the NCI’s investment in site-specific cancer research funding involving collaborators in Latin America and its correspondence to sub-regional cancer burden

Jasmin S. Vargas¹, Rachel Abudu², Kalina Duncan¹

Center for Global Health, National Cancer Institute¹

CMPRD, Frederick National Laboratory for Cancer Research, Leidos Biomedical Research²

ASGCR 2020
Purpose and Study Design

Hypothesis
NCI funded projects with LAC Collaborators in each sub-region correspond to sub-regional cancer burden

Methods

Step 1: Perform portfolio analysis of extramural NCI-funded projects between FY 14-18 with a LAC Collaborator using the IMPAC II Database and stratify by PAHO defined sub-regions to describe research distribution by site

Step 2: Identify sub-regional cancer burden in ASR World Age-Standardized Incidence (GLOBOCAN 2018)

Step 3: Compare extramural funding findings to sub-regional cancer burden

<table>
<thead>
<tr>
<th>Subregion</th>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central America Isthmus and Mexico</td>
<td>Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua</td>
</tr>
<tr>
<td>Andean Subregion</td>
<td>Bolivia, Colombia, Ecuador, Peru</td>
</tr>
<tr>
<td>Southern Cone</td>
<td>Argentina, Brazil, Chile, Paraguay, Uruguay</td>
</tr>
<tr>
<td>Latin Caribbean</td>
<td>Dominican Republic, Puerto Rico, Cuba</td>
</tr>
<tr>
<td>Non-Latin Caribbean</td>
<td>Bahamas, Haiti, Jamaica, Trinidad and Tobago</td>
</tr>
</tbody>
</table>

GLOBOCAN IARC, 2018
Main Findings: Variation exists at the sub-regional level for all 5 top cancers in terms of ASR incidence and project counts. Disparities between projects and incidence by tumor site were largest for colorectal, lung, and uterine cancers. Disparities between projects and incidence by sub-region were largest for the Latin Caribbean and Non-Latin Caribbean.
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Topic 1: Controlling cancer risk factors
Q&A

Faruk Mohammed, MSc
Ahmadu Bello University Teaching Hospital

Jasmin Vargas, BA
Center for Global Health, National Cancer Institute

Linsey Eldridge, MPH
Center for Global Health, National Cancer Institute

Moderator
Upcoming…

3-Part Series: Global Efforts to Reduce the Burden of Cervical Cancer: What Will it Take?

29 July

3-Part Series: Global Efforts to Reduce the Burden of Cervical Cancer: What Will it Take?
Session One: Overview of the global initiatives in cervical cancer control
Wednesday, 29 July 2020, 11AM-12PM US ET. Registration link pending.

05 August

3-Part Series: Global Efforts to Reduce the Burden of Cervical Cancer: What Will it Take?
Session Two: Latest scientific advances, tools, and approaches to address cervical cancer control at the country-level
Wednesday, 05 August 2020, 11AM-12PM US ET. Registration link pending.

12 August

3-Part Series: Global Efforts to Reduce the Burden of Cervical Cancer: What Will it Take?
Session Three: Ensuring effective implementation of cervical cancer prevention and control strategies
Wednesday, 12 August 2020, 11AM-12PM US ET. Registration link pending.

July 20th

Special issue of selected abstracts from 8th Annual Symposium on Global Cancer Research

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Closing Remarks

Christopher Loffredo, PhD
Georgetown Lombardi Comprehensive Cancer Center