Implementing Cervical and Breast Cancer Care Platforms in sub-Saharan Africa: The Experience

February 28, 2022
Agenda

Welcome

Presentation

Q&A and Discussion

Reminders:

For questions to the panelists, use the **Q&A box**

Please use the **chat box** to indicate your name and organization

The webinar recording and slides will be posted on [www.icap.columbia.edu](http://www.icap.columbia.edu)
Groesbeck Parham, MD
Professor of Gynecologic Oncology
Women and Newborn Hospital, Lusaka (Zambia)
University of North Carolina, Chapel Hill (USA)
Alabama Theatre – February, 1963
The Birmingham Children’s Crusade – May, 1963
Terrorism in Birmingham – September, 1963
Black Student Movement of the 1960’s
Connected the dots

Civil Rights Movement  African Liberation Struggles

Racial Segregation  Colonialism
Zambia

- Land-locked/8 international borders
- Approximate size of Texas
- Pop: 18 million; 2.5 million in LSK
  - 42% urban; 58% rural
- Literacy rate: 55.3%
- Median age 17.2 years
- National HIV prevalence rate ~ 11%
  - 1.3 million PLHIV (15-59 y.o.)
- Top two cancers in women: cervical (41%) and breast (12%)
85.3% infected with High-Risk HPV genotypes

Median CD4 Count
165 cells/mm³
Estimating Child Mortality Associated With Maternal Mortality From Breast and Cervical Cancer

Raymond B. Mailhot Vega, MD, MPH; Onyinye D. Balogun, MD; Omar F. Ishaq, MD; Freddie Bray, MD; Ophira Ginsburg, MD; and Silvia C. Formenti, MD
Distribution of disease

Estimated age-standardized incidence rates (World) in 2020, cervix uteri, all ages

Risk for cervical cancer among women living with HIV is 6x higher (RR = 6.07)

Population attributable fraction of women with cervical cancer living with HIV, 2018

Distribution of human resources

Global Distribution of Nurses/Midwives (per 10,000 population)

Global Distribution of Physicians (per 10,000 population)

http://kff.org/global-category/health-workforce-capacity/
Baseline infrastructure

Public health infrastructure in Zambia

Pre-colonial era (Prior to 1888)
Viable indigenous system of traditional medicine

Colonial era (1888-1964)
Medical care orientated around the needs of the extraction industry (copper, emeralds) and diseases experienced by colonialists (malaria, typhoid, etc.)

Post-colonial era (1964-present)
Network of hospitals and clinics: government-owned, mission-supported, private-sector


- One cytologist
- One pathologist
- No oncologists
- No radiation therapy facilities
- Limited number of practicing physicians (0.06 physicians/1,000)
- One cancer advocacy group


- Prevention
  - 10,000 Pap smears

- Treatment
  - 5000 cervical cancer cases, 350 referred for treatment

  Most women died, without any treatment
Screening
Enhanced digital magnification

$15,000

$350
Treatment of precancers
Building a Cervical Cancer Prevention Program into the HIV Care and Treatment Infrastructure in Zambia

Groesbeck P. Parham, Mulindi Mwanahammuntu, Krista Pfaendler, Gricelia Mkumba, Vikrant V. Sahasrabuddhe, Michael L. Hicks, Edith Welty, and Jeffrey S.A. Stringer

Textbook: From the Ground-Up: Building Comprehensive HIV/AIDS Care Programs in Resource Limited Settings
Implementation of ‘see-and-treat’ cervical cancer prevention services linked to HIV care in Zambia

Mulindi H. Mwanahamuntu\textsuperscript{a,b,c}, Vikrant V. Sahasrabuddhe\textsuperscript{d}, Krista S. Pfaendler\textsuperscript{c,e,g}, Victor Mudenda\textsuperscript{a,b}, Michael L. Hicks\textsuperscript{f}, Sten H. Vermund\textsuperscript{d}, Jeffrey S.A. Stringer\textsuperscript{c,g} and Groesbeck P. Parham\textsuperscript{c,g}

AIDS 2009, 23:N1–N5
Telehealth: Transmitted images to remote experts to assist nurses with interpretation, if needed
Telehealth: Track patients who missed appointments
Myths and misconceptions

Myths and misconceptions about cervical cancer among Zambian women: rapid assessment by peer educators

Susan Chirwa1, Mulindi Mwanahamuntu1,2, Sharon Kapambwe1, Gracilia Mkumba1,2, Jeff Stringer1,3, Vikrant Sahasrabuddhe4, Krista Pfandler1,5 and Groesbeck Parham1,2,3

Global Health Promotion, 2010; Supp (2): pp. 47–50

Prominent myths and misconceptions about cervical cancer among unscreened women in Lusaka, Zambia

‘What do you think causes cervical cancer?’
1. If you are found to have cancer of the cervix, that means you were a prostitute.
2. People think that cervical cancer is not from sex but from a Satanic curse.
3. Having sex with a married woman’s husband can give you cervical cancer.
4. When one has cervical cancer that means she was bewitched so I don’t want to know if I have it.
5. Putting herbs in private parts can cause cancer of the cervix.
6. A dirty womb causes cancer so you have to wash yourself out every day.
7. The family planning medicines that they give out at the clinic cause cancer.
8. If you are found with cervical cancer you will die so I don’t want to know.
9. Some people think that it’s a family disease.
10. Eating bad food causes cancer of the cervix.

‘Why haven’t you been screened for cervical cancer?’
1. The nurses who do the screening are Satanists and may take our children.
2. The instruments they use are painful.
3. We are afraid to be cut by the nurses.
4. After screening you have long periods and discharge.
5. There is no privacy and I’m just scared to be screened by people who know me.
6. I’m worried about how clean the instruments are and I am scared of being infected with HIV or any other disease.
7. People think that if you have cancer, they say you have HIV.
8. When someone is found with cervical cancer, they think that the womb will be removed.
9. Screening destroys the ability of a woman to have a baby.
10. Screening enlarges the vagina and reduces sexual enjoyment for men and women.
Awareness
Partnering with traditional Chiefs to expand access to cervical cancer prevention services in rural Zambia

Sharon Kapambwe 1, 2, Mulindi Mwanahamuntu 3, Leeya F Pinder 3, 4, Samson Chisele 3, Susan C Chirwa 2, Groesbeck P Parham 3, 4
Mass cervical cancer screening campaigns
Scaling services


Quality Assurance Measures

Trends in rates of ‘same day-services’ and rates of ‘appropriate referrals’ over 2006–2013

![Graph showing trends in rates of 'same day-services' and 'appropriate referrals' over 2006–2013.]


Trends in rates of screening positivity and cryotherapy rates over 2006–2013

![Graph showing trends in rates of screening positivity and cryotherapy over 2006–2013.]

Accomplishments in cervical cancer care

- Over 1,000,000 women screened for cervical cancer, to date
- Shift in early-stage cancers: 24% to 42%
- Program institutionalized by Zambian MOH in 2015
- Funding increased: PEPFAR, World Bank, Global Fund
- University Teaching Hospital Dept. Ob/Gyn established a gynecologic oncology division and a gynecologic oncology fellowship
Breast cancer in sub-Saharan Africa
Demonstration of an algorithm to overcome health system-related barriers to timely diagnosis of breast diseases in rural Zambia

Leeya F. Pinder, Jean-Baptiste Nzayisenga, Aaron Shibemba, Victor Kusweje, Hector Chiboola, Mary Amuyunzu-Nyamongo, Sharon Kapambwe, Catherine Mwaba, Pavlo Lermontov, Chibamba Mumba, Ronda Henry-Tillman, Groesbeck P. Parham

*LoS One. 2018 May 10;13(5):*
Minimizing Delays in the Breast Cancer Pathway by Integrating Breast Specialty Care Services at the Primary Health Care Level in Zambia

Mutumba Songiso, MBChB, MMED, Leeya F. Pinder, MD, MPH, [...], and Groesbeck P. Parham, MD

Breast cancer stage at diagnosis

<table>
<thead>
<tr>
<th>Stage</th>
<th>n=63 (Year 1)</th>
<th>n=112 (Year 2)</th>
<th>n=276 (Year 3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I &amp; II</td>
<td>28.5%</td>
<td>37.5%</td>
<td>45.7%</td>
</tr>
<tr>
<td>III</td>
<td>62%</td>
<td>54.4%</td>
<td>48.9%</td>
</tr>
<tr>
<td>IV</td>
<td>9.5%</td>
<td>7.1%</td>
<td>5.4%</td>
</tr>
</tbody>
</table>
Building a breast cancer detection and treatment platform in the Democratic Republic of the Congo by integrating training, service and infrastructure development

Kabongo Mukata Mathieu 1, Tankoy Gombo YouYou 1, Michael L Hicks 2 3 4 5 6 7, Alex Mutombo 1 5, Mukanya Mpalata Anaclet 1 5, Mulumba Kapuku Sylvain 1 5, Leeya Pinder 8 9, Maya M Hicks 10 11, Louis Kanda 12, Mirielle Kanda 12, Groesbeck P Parham 2 3 13, Ronda Henry-Tillman 14

Building workforce capacity for the surgical management of cervical cancer in a fragile, low-income African nation—Democratic Republic of the Congo

Michael L Hicks 1 2 3 4 5 6, Alex Mutombo 7, Tankoy Gombo YouYou 7, Mukanya Mpalata Anaclet 7, Mulumba Kapuku Sylvain 7, Kabongo Mukata Mathieu 7, Ronda Henry-Tillman 8 9, Dorothy Lombe 10 11, Maya M Hicks 12 13, Leeya Pinder 14, Louis Kanda 15, Mirielle Kanda 15, Groesbeck P Parham 2 3 16
Keys to success

• Footprints in the soil
• Willingness to learn about, respect and influence local beliefs and culture
• Empowered women to provide medical care to other women
• Utilized task-shifting
• Integrated cancer care services at the primary healthcare level
• Emphasized community awareness
• Incorporated appropriate technology
• Reflection: criticism and self-criticism
• FINANCIAL SUPPORT
Guiding Principle

“You have to learn how to change your attitude in the winds of life to find your way: different ways of thinking, different ways of reacting, different ways of understanding situations. In life you have to drop your certitudes, your common assumptions, your convictions sometimes, to be more flexible, to adapt to the unknown.”

Bertrand Piccard
- Pilot of Solar Impulse - First successful solar-powered flight around the world (2016)
Every woman deserves the right to live a life free from cervical cancer.
Join us on March 22, 2022

ICAP GRAND ROUNDS

Topic – HIV Recency Testing