KENYA SOCIETY OF
HEMATOLOGY AND
ONCOLOGY

5th INTERNATIONAL CANCER
CONFERENCE 2018

Title: ......CANCER STRATEGY, RESEARCH AND EDUCATION

Author(s): Verna Vanderpuye...Aortic Secretary 2017/2019
AORTIC’s HISTORY, MISSION, VISION

HISTORY:
Established in 1982, and gaining exponential momentum since 2003. Milestones achieved include placing cancer control on the Continent’s health agenda.

MEMBERSHIP:
Span across the African Continent, Europe, North America & Australia and Organizations with 500 individual and close to 20 organizational members.

MISSION:
Transform cancer control in Africa through collaboration in education, research and delivery of equitable and timely interventions to minimise the impact of cancer.

VISION:
Africa, a continent where all have universal access to cancer care.
KEY CANCER FACTS

• The number of new cases is expected to rise by about 70% over the next 2 decades.

• Approximately 70% of deaths from cancer occur in LIC & LMIC.

• Around one third of deaths from cancer are due to the 5 leading behavioral and dietary risks: high body mass index, low fruit and vegetable intake, lack of physical activity, tobacco and alcohol use.

• Tobacco is the most important risk factor responsible for approximately 22% of cancer deaths.

• Cancer causing infections, such as hepatitis and human papilloma virus (HPV), are responsible for up to 25% of cancer cases in L & MIC.

• Late-stage presentation and inaccessible diagnosis and treatment are common. In 2015, only 35% of LIC reported having pathology services in the public sector, > 90% of HIC reported treatment services are available compared < 30% of LIC.

• The total annual economic cost of cancer in 2010 was estimated at approximately US$ 1.16 trillion.

• Only 1 in 5 low- and middle-income countries have the necessary data to drive cancer policy.

http://www.who.int/news-room/fact-sheets/detail/cancer 12/09/18
Introduction/Background

• The most common cancers in the African Region are cervix, breast, liver and prostate as well as Kaposi's sarcoma and non-Hodgkin's lymphoma.

• In the African Region, infections due to HPV and hepatitis B and C viruses significantly contribute to the burden of the top two cancers - cervical and liver cancer respectively.

• Many lives can be saved if appropriate investment is made in raising public awareness on the early signs and symptoms of common cancers.

• In addition people should adopt healthy lifestyles that reduce the risk of cancers.

• HPV and hepatitis B vaccines could prevent 1 million cancer cases each year.

• **In summary of these facts it should be easy to reduce our cancer burden!!!**

https://afro.who.int/health-topics/cancer
Translating knowledge into action

• Approx. 60% reduction in incidence/mortality.
• Dependent on societal behavioral change.
• Sociocultural norms & resources influence behavior.
• Drivers - legislation, communication, incentive.
• Most cost effective cancer interventions
• NCD" best buys" : obesity, cervix/breast screening, alcohol, smoking

Cancer control strategy for Africa

Prevention

Early detection

Diagnosis and treatment

Palliative care, survivorship, supportive care

Research

↓ impact of cancer – morbidity, mortality, cost
↑ QoL of patients / care givers

How are we doing?

The WHO African Region had the fastest increase in registries

• between 2010 and 2015, 86% (23) of countries in the region included registries in their plans.

• WHO African region and LICs were least likely to have plans that included HPV vaccination.

• Under registration still a major problem affecting data quality.

Progression of operational cancer plans worldwide per region

<table>
<thead>
<tr>
<th>Region</th>
<th>2013</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>46%</td>
<td>74%</td>
</tr>
<tr>
<td>Americas</td>
<td>61%</td>
<td>77%</td>
</tr>
<tr>
<td>Eastern Mediterranean</td>
<td>48%</td>
<td>71%</td>
</tr>
<tr>
<td>Europe</td>
<td>82%</td>
<td>90%</td>
</tr>
<tr>
<td>South-East Asia</td>
<td>73%</td>
<td>91%</td>
</tr>
<tr>
<td>Western Pacific</td>
<td>83%</td>
<td>83%</td>
</tr>
<tr>
<td>Total</td>
<td>66%</td>
<td>81%</td>
</tr>
</tbody>
</table>

Examples of strategies

**Ethiopia**
- “Even though we are taking various policy and structural measures, including the new cancer control strategy, we have a long way to go for our efforts to match the burden of cancer,” she added.
- The Strategy will rely on the existing primary health care service delivery system primarily focuses on extensive prevention work having the health extension program, health development army and the expanded health centers as pillars.
- The national cancer control strategy was developed with the participation of various stakeholders, are urged to also provide strong support to the implementation of the strategy.

**Kenya**
- The new strategy addresses interventions for cancer control, ranging from a comprehensive national cancer screening programme,
- Improved access to medicines and essential technologies, palliative care
- Providing universal health coverage
- Training centers of excellence
- Supporting population-based cancer registry network
- A LOT OF POLITICAL WILL.
Rwanda

No NCCP yet but....

- Recognized as leading cancer control efforts
- 7.5% of GDP on health
- 100% coverage of Hep & Hpv vaccine
- Low cost cervical cancer screening
- ? Universal health care
- Demonstrates importance of leadership

POLITICAL WILL!!

Nigeria

- Extensive cross-sectoral collaboration involving the government, public health professionals and physicians in academia, bilateral and multilateral organizations and civil societies. I
- Health professional needed have been employed and trained in tertiary hospital.
- Funding the much needed equipment such as diagnostic equipment, CT, MRI and Laboratory facilities and radiotherapy machines.
- Government investment in cancer control would not be sufficient considering the large population of the country, he urged State Government and private sector to collaborate with government to support the fight against cancer
- Steering Committee of National Cancer Control Plan to Implementation Committee of the Cancer Control Plan 2018-20122.
Role of research in cancer control

- Fostering innovation across cancer care continuum to inform science
- Increasing skills and capacity
- Address local clinical and public health practice and be transfable
- Interaction between social determinants and health seeking outcomes
- Genomics, radionomics, diet, dynamics
- Cost effectiveness of therapies
- Monitoring and evaluation of interventions
- Outcomes
- Informs policy and implementation steps where appropriate

* current mapping of oncology research available in gomap.*
* many opportunities available from international organizations*

# Global Obstacles to cancer research

<table>
<thead>
<tr>
<th></th>
<th>Average rank&lt;sup&gt;a&lt;/sup&gt;</th>
<th>HICs (n = 41)</th>
<th>LMICs (n = 39)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competent authorities procedures</td>
<td>4.25</td>
<td>4.61</td>
<td>3.87</td>
</tr>
<tr>
<td>Ethics committee procedures</td>
<td>4.55</td>
<td>4.80</td>
<td>4.28</td>
</tr>
<tr>
<td>Insurance/indemnification coverage</td>
<td>4.55</td>
<td>4.54</td>
<td>4.56</td>
</tr>
<tr>
<td>Lack of patients/patient accrual</td>
<td>5.43</td>
<td>5.27</td>
<td>5.59</td>
</tr>
<tr>
<td>Lack of funding</td>
<td>3.16</td>
<td>3.15</td>
<td>3.18</td>
</tr>
<tr>
<td>Lack of research materials (e.g., drugs)</td>
<td>4.49</td>
<td>4.49</td>
<td>4.49</td>
</tr>
<tr>
<td>Lack of trained personnel</td>
<td>5.00</td>
<td>4.90</td>
<td>5.10</td>
</tr>
<tr>
<td>Lack of time or competing priorities</td>
<td>4.58</td>
<td>4.24</td>
<td>4.92</td>
</tr>
</tbody>
</table>

<sup>a</sup>Lack of funding vs. the next most important barrier (competent authorities procedures) is statistically significant ($p = .002$); lack of patients/patient accrual vs. the second next least important barrier (lack of trained personnel) is statistically significant ($p = .019$).

Abbreviations: HICs, high-income countries; LMICs, low- to middle-income countries.

Moodley et al SAMJ 2016

Fig. 1. Cancer projects classified by type of research domain (note: research projects could be categorised in more than one research domain).

Table 1. CSO classification for research projects addressing the five most commonly diagnosed cancers in SA

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>Biology</th>
<th>Aetiology</th>
<th>Prevention</th>
<th>Early detection and diagnosis</th>
<th>Clinical prognosis/ progression/ staging</th>
<th>Treatment</th>
<th>Patient profiles, clinical audits and review</th>
<th>Survivorship</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast</td>
<td>12</td>
<td>18</td>
<td>2</td>
<td>9</td>
<td>14</td>
<td>35</td>
<td>3</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Cervical</td>
<td>5</td>
<td>4</td>
<td>13</td>
<td>2</td>
<td>6</td>
<td>8</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Colorectal</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Uterus</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Kaposi's sarcoma</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>25</td>
<td>15</td>
<td>13</td>
<td>22</td>
<td>46</td>
<td>12</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

Top five cancers in males

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>Biology</th>
<th>Aetiology</th>
<th>Prevention</th>
<th>Early detection and diagnosis</th>
<th>Clinical prognosis/ progression/ staging</th>
<th>Treatment</th>
<th>Patient profiles, clinical audits and review</th>
<th>Survivorship</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prostate</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Lung</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>16</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Colorectal</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Oesophageal</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Kaposi's sarcoma</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>9</td>
<td>1</td>
<td>5</td>
<td>5</td>
<td>33</td>
<td>5</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

*One project title too vague to classify.
Global Oncology Map

Projects: 4442
Project Leads: 3036
Collaborators: 4219

http://gcpm.globalonc.org/?data=projects
Cancer Workforce training in AFRICA

- A big gap in cancer control planning especially in LIC and LMIC
- Cancer management is not recognized as a separate and vital specialty
- Improved American/ French outcomes is in part attributable to the policy of every cancer patient being evaluated by a cancer specialist.
- Many invest in complex resources without necessary investment in skilled labour
- As setting up training facilities is expensive, regional hubs of excellence is key
- This should however not stifle attempts at strengthening local training initiatives
- Areas of great need in oncology – Nurses, surgery, gynecology, pediatrics, palliative, psychologist, pathologist
Clinical oncology shortfall

The Lancet. "Over three-quarters of people with cancer worldwide have no access to safe surgery: Failure to train more cancer surgeons, strengthen surgical systems could cost the global economy more than $6 trillion by 2030."

<www.sciencedaily.com/releases/2015/09/150928092542.htm

‘There is just one pathologist for every one million patients in sub-Saharan Africa, a ratio 50 times lower than in high-income countries. insufficient human resources and workforce capacity; inadequate education and training; inadequate infrastructure; and insufficient quality, standards and accreditation.”

WHO response to cancer burden

WHO and IARC collaborate with other UN organizations within the UN
• increase political commitment for cancer prevention and control;
• coordinate and conduct research on the causes of human cancer and the mechanisms of carcinogenesis;
• monitor the cancer burden (Global Initiative on Cancer Registries);
• identify priority strategies for cancer prevention and control;
• generate new knowledge and disseminate existing knowledge to facilitate the delivery of evidence-based approaches to cancer control;
• develop standards and tools to guide the planning and implementation of interventions;
• facilitate broad networks of cancer control partners and experts at global, regional and national levels;
• strengthen health systems at all levels to deliver cure and care for cancer patients;
• provide global leadership as well as technical assistance to support governments and their partners build and sustain high-quality cervical cancer control programmes; and
• provide technical assistance for rapid, effective transfer of best practice interventions to less developed countries.
SNAPSHOT OF AORTIC NEW STRATEGY

• **Research** – Map out current research on the continent with collaborations, (gomap) provide contacts, act as networking hub. Provide guidance to relevant research, encourage peer reviewed and open access publication and exposure of research from the continent, importantly promote implementation research to inform tailored evidence based practices.

• **Education and training** – Map centers of regional excellence, identify gaps, train of trainers, act as liaison between institutions across cancer care continuum. Foster local and south-south training collaboration. Forming special interest groups to improve knowledge/skills.

• **Advocacy** – Serve as a mouth piece for cancer related issues on the international forum, political agenda in countries. Promote survivorship support to our growing number of cancer survivors. Provide guidance to the relevant socially/culturally appropriate cancer control measures.
- AORTIC 2017 KIGALI, RWANDA
- 894 Attendees
- 55 Countries represented - 34 Africa
- 1,120 Abstracts submitted
- 95 Sessions - 10 Keynotes
- 13 Round Table Focus Groups
- 82 Orals - 320 Posters displayed
- 1 Pre-conference symposium
- 20 Satellite & Side meetings

**AORTIC conference attendees**

![Graph showing attendance trends over years](image)
JOIN US TO PROMOTE THE AFRICAN CANCER AGENDA. WE NEED TO LEAD THE WAY. COME LET US COLLABORATE TO RISE UP.
Thank you...