KESHO International Cancer Conference
15\textsuperscript{th} – 17\textsuperscript{th} November 2018
Crowne Plaza Hotel
Nairobi, Kenya

\textit{Summary REPORT}

By Rachel Olwanda
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15th – 17th November 2018 - Nairobi Kenya

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# Abbreviations

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<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>AGM</td>
<td>Annual General Meeting</td>
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<tr>
<td>AKUH-N</td>
<td>Aga Khan University Hospital</td>
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<tr>
<td>AORTIC</td>
<td>African Organization of Research and Training in Cancer</td>
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<td>ARF</td>
<td>African Organization of Research and Training in Cancer</td>
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<td>ASCO</td>
<td>American Society of Clinical Oncology</td>
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<td>BRECC</td>
<td>Breast Cancer Care</td>
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<tr>
<td>CD</td>
<td>Compact Disk</td>
</tr>
<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
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<tr>
<td>CME</td>
<td>Continuing Medical Education</td>
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<tr>
<td>DNR</td>
<td>Do Not Resuscitate</td>
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<tr>
<td>FDA</td>
<td>Food and Drug Administration</td>
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<tr>
<td>FISH</td>
<td>Fluorescence In Situ Hybridization</td>
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<td>GoK</td>
<td>Government of Kenya</td>
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<tr>
<td>HPV</td>
<td>Human Papilloma Virus</td>
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<tr>
<td>HR</td>
<td>Human Resource</td>
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<tr>
<td>ICCC</td>
<td>International Classification of Childhood Cancer</td>
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<tr>
<td>IHC</td>
<td>Immunohistochemical</td>
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<tr>
<td>KEMRI</td>
<td>Kenya Medical Research Institute</td>
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<td>KENCO</td>
<td>Kenya Network of Cancer Organizations</td>
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<tr>
<td>KEPCAH</td>
<td>Kenya Society of Haematology &amp; Oncology</td>
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<tr>
<td>KESHO</td>
<td>Kenya Society of Haematology &amp; Oncology</td>
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<tr>
<td>KNH</td>
<td>Kenyatta National Hospital</td>
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<tr>
<td>MoH</td>
<td>Ministry of Health</td>
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<tr>
<td>MTRH</td>
<td>Moi Teaching and Referral Hospital</td>
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<tr>
<td>NCCP</td>
<td>National Cancer Control Program</td>
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<td>NCI-K</td>
<td>National Cancer Institute of Kenya</td>
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<td>NGS</td>
<td>Next-Generation Sequencing</td>
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<td>NHIF</td>
<td>National Hospital Insurance Fund</td>
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<td>OS</td>
<td>Overall Survival</td>
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<tr>
<td>PCR</td>
<td>Polymerase Chain Reaction</td>
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<tr>
<td>PET CT</td>
<td>Positron emission tomography–Computed Tomography</td>
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<tr>
<td>PFS</td>
<td>Progression Free Survival</td>
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<tr>
<td>PPP</td>
<td>Public Private Partnership</td>
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<tr>
<td>QOL</td>
<td>Quality of Life</td>
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<tr>
<td>TB</td>
<td>Tuberculosis</td>
</tr>
<tr>
<td>TCC</td>
<td>Texas Cancer Centre</td>
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<tr>
<td>UN</td>
<td>United Nations</td>
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<tr>
<td>UoN</td>
<td>University of Nairobi</td>
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<td>WHO</td>
<td>World Health Organization</td>
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FOREWORD

The latest cancer statistics show that the cancer burden is expected to rise to 18.1 million new cases and 9.6 million cancer deaths in 2018 globally. Kenya has less than 30 cancer specialists mostly in the urban settings against an increasing cancer population currently documented at 43,000 patients across the country illuminating a dire professional deficit and much needed concerted effort by all players to curb the catastrophic effects of cancer burden.

Cancer control research therefore seeks to identify and evaluate means of reducing cancer morbidity and mortality and thereby improving the quality of life of people living with, recovering from or dying of cancer. Knowledge of the facts and statistics, plausible risk factors of disease and emergent complexes, suitable interventions in response as well as the policies and frameworks that help facilitate cancer control is essential in reducing incidents, rates and mortality due to cancer. Through research, cancer experts are able to tackle cancer with community and country/region specific interventions.

The 5th International Cancer Conference in 2018 by KESHO hosted in partnership with the Ministry of Health, Kenya, brought together an average of more than 250 participants each conference day. They comprised both delegates and partners whose profile ranged from oncologists, radiologists, pharmacists, medical officers and a myriad of players in cancer management and treatment including health authorities and experts from the state, non-governmental organizations and projects working in screening and surveillance of risk and crisis management as well as scientists, advocacy groups and individuals/persons living with cancer to discuss integrating cancer treatment practice and research. More than 30% of the participants, were doctors with the rest being diverse practitioners mitigating cancer related complexes. It was an opportunity to review and evaluate performance and discuss various advances made so far in cancer treatment and management both locally and globally and how to embrace them as well as create a platform to decentralize cancer information from few experts to devolved layers in cancer management such as general physicians and caregivers at county level. The program included diverse content from renowned experts in several related fields and a well versed keynote speaker from around the world and local clinical specialists and practitioners in research, policy makers and cancer advocates to infuse a more holistic perspective.

The conference format included plenary sessions, context specific breakout sessions, illustrative exhibitions by sector players, workshops including research workshop facilitated by international and local researchers who steer participants in navigating the enormous dilemma in conducting research (quantitative and qualitative), grant writing and getting published and the first ever KESHO-ASCO Joint Symposium showcasing KESHO members and ASCO faculty tackling cases in the setting of precision medicine and immunotherapy. Additionally, there were social activities linked and tilted to the conference activities and themes such as a Gala Dinner by Texas Cancer Centre in Kenya enriched by a fashion show with cancer survivor runway models and a Cancer awareness concert by renowned celebrity artists.

The theme of the conference in 2018 was ‘Integrating Research and Practice’ with the main objective being to highlight the research work centred on cancer treatment and management and create a platform for local, regional and international health care providers to present their work, hear from each other, learn and encourage collaboration.
The overall goal of the KESHO International Cancer Conference in 2018 was: *To strengthen purpose, create awareness, bring clarity and direction of cancer response locally and globally as well as enhance the capacity of Cancer Management and Treatment focal points on concerted effort, utilizing the available resources for greater impact across Africa.*

Specifically, the key objectives of the conference in 2018 was:

- To improve quality and quantity of cancer research in the country and the region.
- To assess current developments in cancer research in sub Saharan Africa.
- To support national cancer control research agenda through collaborative working and stakeholder engagement.
- To advocate for government funding for cancer research
- To provide fora to discuss new technologies and treatment protocols in clinical cancer management
- To impact policy and advocacy for cancer and hematological conditions

Ultimately, the conference accentuated a team culture amongst the sector focal points, experts and persons living with cancer to ensure that they share experiences, lessons learnt, recommend best practices and complement each other effectively in their related roles despite of their diversity in roles in cancer management and treatment, activity, agency core work, socialization, skills and competence.

The conference featured 2 practical workshops. Namely:

a) Research Training and Scientific Writing  
b) Pathology and radiology featuring hands on specimen handling

The tracks were as follows:

a) Where Africa is in Cancer Research  
b) Advocacy: Policy and Legislation  
c) Palliative & Supportive care  
d) Clinical Care & Diagnostics  
e) Hematological Malignancies in Adults & Children  
f) Education sessions

All these were in line with KESHO’s mandate objectives which is

1. To be a catalyst for research in cancer and blood diseases  
2. To help improve patient care and stimulate capacity building for cancer care both regionally and nationally  
3. To provide physicians involved in diagnosis and treatment of cancer and blood diseases with a forum to discuss ideas for purposes of improving practice and outcomes

The plenary at the culmination of the conference took participants through

1. Review and discussions on country-level progress and challenges, shared lessons and experiences and the latest tools and resources in cancer screening, treatment and management  
2. Discussions on strategies and priorities for cancer treatment and mechanisms supporting and strengthening cancer treatment

This was achieved specifically through: Enhancing the synergy between the established KESHO secretariat, relevant national government agencies, partners and sector specialists spanning across Africa and globally through focused information sharing, empowerment and team building; Effecting a process of follow up and accountability on the workshop priority and action areas; and Laying milestones for years ahead.
The process was facilitated by KESHO secretariat, guest moderators and covered more than 15 regional countries who participated during the 3 days in discussions, presentations, workshops and breakout sessions.

The achievements of the workshop were elucidated by the conference delegates in the evaluation and feedback sessions in plenary through post session questionnaires and evaluation forms.

As a sequel to the last KESHO 2016 workshop whose focus was on ‘Taking cancer Care to the Communities’ the KESHO 2018 conference sought to review the operationalization of the same seeking to accentuate the essence of integrating practice and research at the devolved layers of local administration and dovetailing the national government’s efforts in cancer control and treatment.

The KESHO chairperson Dr Sitna Mwanzi at the close of the workshop reiterated the deliberate effort towards ensuring that

1. There is enhanced communication and support;
2. KESHO focal persons and other key persons are actively and consultatively engaged in all processes in enriching the response to currently identified key areas to ensure there is capacity to handle the broader wellbeing issues emerging in cancer treatment and management
3. There will be empowerment of KESHO members with tools necessary to effectively carry out their mandate

She indicated that whilst there is a global trend to integrate practice with other multi-disciplinary issues thereby being packaged as part of a larger issue rather than being handled as a stand-alone issue, there are ongoing discussions on the feasibility and effectiveness of the same to ensure that the benefits made do not roll back. She shared that KESHO programme has been implemented since inception in 2002 with very many accomplishments that have only been made possible with the dedication of the members.

In closing she extended appreciation and encouraged the KESHO delegates, members and focal points emphasizing that they are not alone, should keep meeting, advocating and sharing with each other.
ORGANIZATION, WORKSHOP FORMAT & METHODOLOGY

The workshop methodology involved speeches, presentations, exercises, sector exhibitions, group feedback and plenary discussions. A highly interactive environment was created enabling free and candid expression of thoughts by the KESHO focal persons and delegates and emergent immediacy in responding to issues helped to reinforce mutual trust and understanding amongst participants. The conference was conducted in English. Each participant was issued an information pack with all the substantive information shared during the presentations along with cited resources such as handbooks, references and tools. Additionally, an e-certificate for attending the workshop was to be sent to each one of them by email.

COORDINATION

The conference ran for 3 days from Thursday 15th to Saturday 17th November 2018 with participants attending all the plenary sessions and choice breakout sessions. The conference was organized by the KESHO secretariat and with the collaboration of the Crowne Plaza Hotel officials and external facilitators, to enhance the logistics of arranging for the venue, refreshments and conference/workshop consumables such as visual aids, stationery, etc. They ensured that relevant materials were available for the workshops ahead of time.

OUTPUTS

<table>
<thead>
<tr>
<th>Date</th>
<th>Category</th>
<th>No. Of Participants</th>
<th>Sessions/Topics covered</th>
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<tr>
<td></td>
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<td>M</td>
<td>F</td>
</tr>
<tr>
<td>15th November 2018</td>
<td>Delegates &amp; partners</td>
<td>127</td>
<td>127</td>
</tr>
<tr>
<td>16th November 2018</td>
<td>Delegates &amp; partners</td>
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<td>117</td>
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<tr>
<td>17th November 2018</td>
<td>Delegates &amp; partners</td>
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<td>75</td>
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<tr>
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<td>16th November 2018</td>
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<td>30th November 2018</td>
<td>Sponsors Post Event Evaluation breakfast</td>
<td>8</td>
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Countries Represented

> 10
Ethiopia, Egypt, Kenya, Rwanda, South Africa, Sudan, Tanzania, Nigeria, Tunisia, Romania, India, USA

No. Agencies/Organizations represented

60
Africa Cancer Foundation, Aga Khan University Hospital (Nrb & Msa), AIC Kijabe Hospital, AMPATH Oncology, Amref Health Africa, Amring Farma, Amring Farma SRL, Apollo, Astrazeneca, Axios, Bayer East Africa, Beacon Medicare, Brunnel University, London, Cancer Alliance, Cancer Café, Chuka Hospital, Cipla, Coast provincial general hospital, Ethiopia, FN Scientific, Garissa County, Independent Researcher, Intas/Accord, Individual practitioners, Kenya Hospices and Palliative Care Association (KEHPCA), Kenyatta National Hospital, Lagoon Hospital, Lagos, Nigeria, LANCET, M.P Shah Hospital, Mercury Health, Metropolis Star Lab, Ministry of Health, MSN Onco, Nairobi Hospital, Nairobi Radiotherapy and Cancer Centre, Nakuru, National Cancer Control Programme, Novartis, Nyeri County
Results distribution of conference attendees

Participants (refer to participants and speakers’ list)

In attendance were a total of 228 KESHO delegates of whom 44% were female and 56% male.

Regional representation of conference attendees
Conference Programme (refer to final copy of programme)
Facilitators adapted the same programme as was provided to the participants with very subtle tweaks to manage time and absence of some presenters.

SESSIONS SUMMARY

The three day schedule ran as planned in the programme on the substantive context and content with minor changes where scheduled presenters did not attend the conference and mostly to accommodate more plenary discussions. Each session had session chairs and was concluded with an interactive Q&A session to presenting panelists expounding on their presentations.

Day 1
Session 1: Cancer Management Review and Updates
This session kicked off by giving a glimpse at the current status in cancer control and management with a glimpse at different kinds of cancers and enriched with pilot, research and case studies that support the submissions that were made. Additionally, there were insights on new trends, updates & progress made, key challenges and lessons learnt in cancer management to date. It was a useful session for participants to contemplate whether there was meaningful impact in the existing cancer control, treatment and management approaches. Guiding questions included ‘How much of the current practice has been shaped by ongoing research?’ , ‘Is there sufficient multidisciplinary collaboration towards mitigation of cancer complexes?’ and ‘Is enough being done?’

Session 2: Opening Ceremony of the 5th Kenya International Cancer Conference
Tribute was given to the late Dr. Eliud Njuguna who at the time of passing was KESHO’s chairperson and was very instrumental in the establishment of KESHO. The conference was thereafter, formally opened by the chief guest Hon. Dr. Mohamed Kuti also the Chair of Council of Governors Health Committee who reinforced the Kenya National government’s commitment to improve healthcare in the country. It was also an opportunity to call on all stakeholders in cancer treatment and management to collaborate and partner concertedly in response to cancer for meaningful impact.

Session 3: Key Note Address
In this session the guest speaker gave an elevator statement on cancer control and treatment and pitched for a different but winning approach towards cancer control, treatment and diagnostic approaches. He presented a win-win approach in cancer control, management and treatment hinged on scientific exploration; establishment of much needed services that are accessible at grass root level; use of knowledge and informatics for better outcomes; modern technology

Breakout Sessions:
In this session 2 tracks and 1 workshop featured as under:
  a) Clinical Care: featuring Breast and Prostrate Cancer
     - Reviewed sequencing of therapy in hormone receptor breast cancer and the process to determining the appropriate line of treatment
     - Study shared on local perspectives on surgical management of breast cancer in a local teaching hospital (AKUH-N) which has an active breast cancer patients clinic
     - Reviewed hypo-fractionation versus standard fractionation radiotherapy in post mastectomy early stage breast cancer
b) Palliative and Supportive Care
   - Review various ways to provide care for those diagnosed, in treatment and living with cancer physically, emotionally, socially, spiritually and psychologically as well as the emergent ethical issues that arise in oncological treatment towards the end of life
   - The question here is should the focus be on seeking curative treatments, prolonging life or palliative care?

c) Research Training and Scientific Writing
   - Workshop was to empower participants on research basics, good practice and techniques, manuscript writing and grant proposals with insights on qualitative research as well as on what and how to start doing research.

Day 2
Session 4: Review of Cancer Research in Africa
This session put perspective on cancer treatment in Africa and the emergent complexes. The key question here is ‘What is the safest health system’ and ‘What is applicable in the interim for treatment in the African context?’

Session 5: Academic sessions: Where Kenya is in Cancer
This session was pointed towards review of 6 diverse abstracts that was probing multidisciplinary issues in cancer control, screening, barriers to treatment, financial barriers to screening and treatment and epidemiology of cancer in Kenya. The questions to ponder are ‘What measures can be taken to address the challenge of affordability given that the existing support covers largely the treatment and other complimentary matters such as access expenses for transport?’

Breakout Sessions:
In this session 2 tracks and 1 workshop featured as under:
   a) Clinical Care: Diagnostics
      - A look at various diagnostic approaches in cancer treatment and advancements made in molecular pathology tests with sample case studies and the outcomes
   b) Advocacy/Policy and Screening
      - The foundational questions to ponder in dealing with medical scepticism is; Can advocates understand complex science? What expertise do they bring on board and is it important for them to learn science?’
   c) KESHO/ASCO Joint Session
      - This session aimed at providing information on the latest treatments in the common cancers focusing particularly on targeted therapies and immunotherapies and illuminating the opportunities presented to improve patient outcome and challenges faced by clinicians and patients using these therapies. This was through showcasing several cases with insights provided by ASCO faculty on latest advances.

Day 3
Breakout Sessions:
In this session 2 tracks and 1 workshop featured:
   a) Education
      - Creating awareness of oncological training opportunities locally and exploring the need for more trained professionals to respond to the expressed need for cancer treatment and management
   b) Hematological Malignancies in Adults and Children
      - Review of disorders that affect the human body’s normal production of blood, diagnosis and treatment and evidence based case studies
c) Pathology and Radiology workshop on Specimen handling
   - Practical hands on workshop that illuminates best practice in specimen retrieval and handling for
effective analysis of cancer and other related complexes. The session also showcases modern non-
intrusive procedure and technique in screening for cancer through magnetic tracers.

Session 6: Outlook & Country Level Coordination and Response to the cancer burden
The session was used more to discuss various elements of inter-agency efforts to demonstrate and create
understanding of the importance of their unique roles in the country as well as provide information on effective
approaches and available resources that can be accessed locally. It featured presentations by officials from
national institutes & regulatory agencies as well as renowned private institutions working in cancer registry,
financing care, training and education opportunities in cancer control, management and treatment.

Featured topics included, mapping stakeholders to enhance coordination of cancer prevention and control,
development of consolidated screening guidelines in Kenya, the improvements in the financing policy for cancer
care, opportunities for developing population based cancer registries and bridging the gap in low resource settings.

Closing and concluding Sessions;
Vote of thanks was delivered by the KESHO chairperson and acknowledgement of all who collaborated to make the
conference a success. At the end of every session participants were provided with evaluation tools to give
feedback gauging the outcomes of the sessions as well as provide information on their experience towards
enriching future interactions with KESHO.
CONFERENCE OBJECTIVES

The objectives of the KESHO 5th International Cancer Conference were to:

1. To improve quality and quantity of cancer research in the country and the region.
2. To assess current developments in cancer research in sub Saharan Africa.
3. To support national cancer control research agenda through collaborative working and stakeholder engagement.
4. To advocate for government funding for cancer research.
5. To provide fora to discuss new technologies and treatment protocols in clinical cancer management.
6. To impact policy and advocacy for cancer and hematological conditions.

CONFERENCE CONTENT

The conference programme covered the following content:

1. Cancer Management Review and Updates
2. National Government’s perspective in response to the cancer burden in the country
3. Winning Scientific approaches
4. Clinical Care: featuring Breast and Prostate Cancer
5. Palliative and Supportive Care
6. Research Training and Scientific Writing
7. Review of cancer research in Africa
8. Clinical Care: Diagnostics
9. Advocacy/Policy and Screening
10. KESHO/ASCO Joint Session
11. Education
12. Hematological Malignancies in Adults and Children
13. Pathology and Radiology workshop on Specimen handling
14. Country-level progress and challenges, shared lessons and experiences and the latest tools and resources in cancer screening, treatment and management
15. Strategies and priorities for cancer treatment and mechanisms supporting and strengthening cancer treatment
OPENING REMARKS

Speech by Hon. Dr Mohamed Kuti, Governor of Isiolo County & current Council of Governors Chair of Health Committee

“I am privileged to be amongst highly educated gathering today. Ladies and Gentlemen, distinguished guests on behalf of the Council of Governors I take this opportunity to express my pleasure to be part of this initiative to improve healthcare in the country through integrating research and practice into policies, programs and services to benefit cancer patients. The latest cancer statistics shows that the cancer burden is expected to rise to 18.1million new cases and 9.6million cancer deaths in 2018 globally. About 80% of these deaths occur in low and middle income countries. This clearly indicates that cancer becomes relatively more the cause of premature deaths.

In Kenya, if we are to reduce these numbers research comes in handy. Through research, cancer experts can understand best what ails the community, the prevalent areas and devise counter measures to reduce new cancer incidents, improve timely diagnosis, treatment and ultimately increase in survivorship. Kenya has less than 30 cancer specialists against an increasing cancer population of 43,000. Which means every cancer specialist should attend to at least 1,300 cancer patients. This is a dire professional deficit which clearly requires urgent attention. Against this backdrop, there have been efforts towards knowledge sharing platforms including conferences and monthly continuous medical education sessions with fellow cancer experts, physicians, cancer nurses, radiation therapy technologists, cancer support groups amongst other like-minded cancer networks.

However, the main challenge remains the distribution and access to these specialists by Kenyans who need their services out of the few cancer specialists in the country, where nearly 90% of them practice in urban areas, particularly Nairobi and the other 10% in Mombasa and Eldoret leaving out the rest of the country which has a constant growing cancer burden.

These knowledge sharing avenues have therefore been instrumental in decentralizing cancer information from the few specialists in major cities and empower the various physicians and other healthcare providers at the county level who are sometimes overwhelmed by the number of cases they receive.

Before I conclude, I would like all of us to know that cancer as a cause of illness and death will continue to grow. Even with effective preventive measures. Therefore, appropriate cancer management, early detection, diagnosis and treatment can extend the lives of many particularly if diagnosed early. Cancer scourge is affecting Kenyan families and communities from all parts of this country. The rural and urban folks alike, the rich and poor, the young and old have not been spared.

County governments are trying their best in disseminating relevant information and education, cancer screening, early diagnosis, referrals and management of terminal cases. However, more work needs to be done to enhance capacity at the county level through decentralization of facilities for cancer diagnosis and treatment, training of service providers, generating evidence on diseases burden through research as well as increasing population access to such facilities and thereby reducing costs incurred by households in seeking cancer treatment. To achieve this goal I therefore call upon all relevant players and stakeholders to a purposeful partnership that must include but not limited to the county government, national ministry of health, research institutions and diagnostic centres of excellence.

First Draft KESHO – 5th KENYA INTERNATIONAL CANCER CONFERENCE Detailed Report
Ladies and gentlemen, as drivers of the health sector, we are obliged to ensure that the county governments utilize these initiatives to catalyse the realisation of the right to the highest attainable standard of health as enshrined in the constitution of Kenya 2010. It is therefore incumbent upon us to work in a collaborative and consultative manner towards achievement of universal healthcare. I take this opportunity to wish you all fruitful discussion in the coming days of this conference.

But I would like to emphasize three things

1. The role the counties are playing cannot be over emphasised because of the fact that health has now been 90% devolved. Looking at the Medical Equipment Leasing (MEL) program’s impact on the county, the counties now have better equipment and capacity to diagnose early. The challenge though is we still do not have adequate trained staff with the necessary skills to utilize these resources. In some sub-county facilities, those equipment which are very expensive and sophisticated which would have helped patients a lot are still collecting dust because of lack of personnel to utilize them for the benefit of the patients. I hope that this kind of forum will be able to address this in its discussions.

2. We also have a good opportunity where the political wind is in favour of health where universal healthcare has been declared as one of the big 4 agenda. And just this week we had the opportunity to launch universal health registration of households with 4pilots counties including Isiolo, Machakos, Nyeri and Kisumu. There are changes in the launch of UHC from the original plan which was NHIF was to receive funds from treasury then send to the facilities but that has since been changed so that now Treasury send 70% of the funds are sent to KEMSA to ensure that facilities have medicines and medical commodities which have been a challenge for patients to access care and the 30% is directly sent to facilities not passing through the county enabling facility committee and management could determine how best to utilize the fund so that they improve on the public facilities and regain back the confidence of the public which had eroded in the past making patients bypass the various referral facilities and go for private medical care which is very expensive. All of us at one point or another have been called upon for medical fundraising which is a huge financial burden due to a debilitating health condition. UHC is meant to reduce the financial burden. This cannot be achieved until the government facilities regain the confidence that is ensuring that commodities are there all the time i.e. medicine and medical commodities, staff must be there all the time to receive and give care to the patients and the referral system must be functional. This new wind will remove the burden of medical care from the communities.

3. The UHC has put a lot of emphasis of primary healthcare and more specifically community health care services. This is where the issue of oncology and stress on cancer should be based where, we need to strengthen the community health service at the last mile and create awareness in messaging that most of the cancers are preventable. The best approach here includes strengthening community health volunteers and inculcating information technology to improve and ease the work of community health workers and volunteers as is being done by one local initiative ‘Living Goods’ that puts smart phones in the hands of community health volunteers enabling them to help monitor and even send notifications on diverse health matters like where they are meeting communities for awareness clinics, areas due for immunization, ante natal clinic notifications, households needing attention, etc. Community Health Service should be given the priority that it deserves as well as put sufficient focus on Primary Health Care by doctors, practitioners and policy makers in order to be able to diagnose and detect early the symptoms of disease.”
KEYNOTE ADDRESS

Presentation by Prof. Ahmed Elzawawy – Harvard Global Health Catalyst Win-Win Initiative – Boston USA and Suez Canal University, Egypt

The keynote presentation was an emphasis on the need to explore some positive and constructive points to increase affordability of better value cancer chemotherapy care in the world starting with low & middle income countries and Africa by marshaling different stakeholders to work in a concerted effort.

Emerging issues:

1. In nearly half the countries that have a cancer control plan, it was found that accessibility and affordability of the actual treatment remained low in developing countries more because countries mimic phrases and texts of WHO plans without tailoring them to the country plan and real situation and challenges. A successful plan considers this and achieves its goals by full implantation in the real local conditions.
2. If there is a way to broaden the markets remarkably in the underserved regions in the world, it would be beneficial to all stakeholders. Use of ICT could remarkably assist.
3. Where all stakeholders are involved all win due to the inherent gains to all parties i.e. cancer patients & their families, scientists in the progress of science, pharmaceutical companies and manufacturers of equipment such as radiotherapy & screening machines and other medical devices without ruining a country or individuals economies.
4. Presenting stimulating ideas and effective approaches should be adapted through initiatives such as ‘The Win-Win initiative’ partnership which is opened to experts, industries, organizations and all with constructive ideas to serve the cause of addressing the cancer burdenconcertedly and comprehensively without competing with or clamoring to replace any organization or society. Solutions provision is open to all.
5. High Value cancer care keeps costs down
6. All should be contributors in the change that brings about greater good and gain

CANCER MANAGEMENT UPDATES AND REVIEW

Session Chairs: DR Sitna Mwanzi and Dr Catherine Nyongesa

The following presentations were shared during the session

Presentations made in this session by:

- **Dr. Ahmed Kalebi** (Lancet Group, Kenya) on Lung carcinomas seen at a referral laboratory in Kenya - a retrospective review of clinical and pathological characteristics over a 7-year period;
- **Dr. Amha Gebremedhin** (Addis Ababa University, Ethiopia) on Approach to management of CML patients with resistance/intolerance to imatinib therapy;
- **Prof. Paul Ruff** (The Medical Oncology Centre of Rosebank, South Africa) on Updates in the management of colon cancer;
- **Dr. Fredrick Chite** (AMPATH Oncology and Haematology, Kenya) on Research updates in lung cancer management in Kenya;
- **Prof. Bernardo Rappaport** (The Medical Oncology Centre of Rosebank, South Africa) on Recent advances in Immunotherapy;
- **Dr. Asim Jamal** (Aga Khan University, Kenya) on Updates in the management of Hormone Positive Advanced breast cancer;

Full presentations are accessible on KESHO website on the link [https://kesho-kenya.org/index.php/presentations](https://kesho-kenya.org/index.php/presentations)
**Emerging issues on review of the cancer management advances**

1. The lingering concern in all the presentations was in the lack of proper, quality or sufficient data and documentation that could be used as benchmarks for other complimentary players in cancer therapy and clinical response in the region.

2. Lack of clinical details hampers further detailed analysis of the epidemiological characteristics of patients.

3. There is evidence that most patients can live a near normal life with the appropriate treatment.

4. There are still difficulties in early diagnosis, treatment and evaluation of treatment response.

5. Therapy has improved significantly. Along with it also presents cases of emergent mutation at various time points on different therapies and this needs to be put under assessment to ensure that the merits outweigh the risks.

6. More effort is required to have more facilities for cytogenetic and molecular studies for early diagnosis, follow-up studies and resistant testing.

7. It is important to monitor patients frequently to identify those with suboptimal response to therapy and intervene early to increase the probability of good response and long term favorable outcome through understanding too of side effects.

8. Oncologists need to prepare themselves for overwhelming new knowledge of molecular pathways.

9. Early recognition and management is important to decrease morbidity and mortality. This is achieved through proactive monitoring, early recognition and reporting, prompt appropriate management and vigilant follow up.

10. There are major advances in immunotherapy in cancer treatment with long term remissions and possible cures.

11. There has to be intentional toxicity management since there are diverse toxicity profiles.

12. Not all lung mass have lung cancer.

13. Patients aren’t necessarily late in seeking treatment and there is evidence that some make several visits before diagnosis is made accurately often at stage 4. In some cases patients die while being treated for other things. How can we assist WHO in development of lung cancer tools given than clinically it presents itself and is symptomatic at about 8months?

14. The system of referral is poor and protocols and guidelines for treatment are not often clear poising the patient in danger of being treated for other things other than the cancer e.g. TB instead. In the protocols, it needs to be established for early detection ‘If not TB, what else?’
WHERE AFRICA IS IN CANCER RESEARCH

Session Moderators: Dr Asim Jamal and Dr Riaz Kasmani

The following presentations were shared during the session

- **Dr Verna Vanderpuye** (Korlebu Teaching Hospital, Ghana and Secretary Treasurer of African Organization of Research and Training in Cancer (AORTIC)) on Cancer Strategy, Research and Education in Africa
- **Prof. Fernando de Mora** (Universidad Autónoma de Barcelona, Spain) on Biosimilar: rigorous evidence of equivalence
- **Dr. Catherine Nyongesa** (Texas Cancer Centre, Kenya) on Renal Failure - a deadly complication in cervical cancer
- **Prof. Ana Maria Sureda** (Institut Català d’Oncologia - Hospital de Barcelona) on Hodgkin’s Lymphoma Update
- **Dr Alexanda M Stessin** (Stony Brook University Hospital, USA) on Game changing trends in radiation oncology and their applicability to the African Clinical setting

Full presentations are accessible on KESHO website on the link [https://kesho-kenya.org/index.php/presentations](https://kesho-kenya.org/index.php/presentations)

**Emerging Issues on Where Africa is in Cancer Research**

1. Treatment is always challenging and often affect the patients quality of life hence the need to identify the best fit per patient and to counsel them accordingly on the implications of any therapy undertaken.
2. All players in cancer control, treatment and care should collaborate through education, research and delivery of equitable and timely interventions to reduce the burden of cancer.
3. Only 1 in 5 low and middle income countries have the necessary data to drive cancer policy
4. The number of new cases is expected to increase by 70% over the next 2 decades.
5. 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.
6. Late-stage presentation and inaccessible diagnosis and treatment are common.
7. 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.
8. Many lives can be saved if appropriate investment is made in raising public awareness on the early signs and symptoms of common cancers.
9. Many African States invest in complex resources without necessary investment in skilled labour. Areas of great need in capacity building and training include; Nurses, surgery, gynecology, pediatrics, palliative, psychologist, pathologist
10. The WHO African Region had the fastest increase in registries
11. Diverse strategies have been deployed across Africa to address the cancer burden however the essence of political goodwill cannot be understated
12. There are drugs approved after trial yet not yet accessible in Africa for Hodgkins Lymphoma
13. Even with improved results there is risk of inflammation by patients
14. The New trends in the 21st Century feature; Stereotactic Radiosurgery (SRS/SBRT/SABR); Radiotherapy and Immunotherapy and Hypofractionation: A trend applicable to the African clinical setting
15. In the new emerging models it is believed that there is more to radiation therapy than free radicals and double strand breaks. SBRT: reduce the volume and toxicity, deliver treatment faster – start immune fire
16. Studies have shown that in early stage breast cancer, hypofractionated regimens should be considered standard of care

17. What is applicable to African Clinical Context is Hypofractionated regimens – NOW; Dose Escalation with Stereotactic Radiotherapy – FUTURE (need better treatment planning and delivery systems); and Combination of treatment with new systemic agents such as immunotherapy, “radiotherapeutic vaccination” – FUTURE (as these agents become more available)

18. Renal failure has been observed as a deadly complication of advanced cervical cancer whereby in advanced stages treatment is always challenging because tubes dislodge, get infected, uncomfortable to carry around or never drain at all sometimes and thus interventions should prioritize the patient’s quality of life. Considering the high mortality found among patients with advanced cervix cancer, particularly if complicated by obstructive ARF, studies are needed to evaluate the factors that may influence the survival and quality of life of such patients since there hasn’t been a great deal of research undertaken on the same.

19. HPV vaccination programs potentially can reduce the long-term future burden of cervical cancer, and the WHO currently recommends:
   - vaccinations against HPV of girls aged 9 to 13 years
   - Screening programs among unvaccinated older women.
   - Screening of women aged 30 to 49 years—either through visual inspection with acetic acid, PAP Smear tests every 3 to 5 years, or HPV testing every 5 years—coupled with timely treatment of precancerous lesions

WHO Response to Cancer Burden

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

Session Moderators: Dr Joseph Githaiga and Dr Lucy Muchiri

The following presentations were shared during the session:

- **Abstract 1:** Financial barriers to breast cancer screening and treatment by *Dr Robai Gakunga* (Research Triangle International, Kenya)
- **Abstract 2:** The Scoping Review of Oncology Research in Kenya by *Dr. Veronica Manduku* (KEMRI, Kenya)
- **Abstract 3:** Results of breast cancer care (BRECC) Registry at the Kenyatta National Hospital by *Prof. N A Othieno Abinya* (University of Nairobi, Kenya)
- **Abstract 4:** Epidemiology of Cancer in Kenya: Data from National Cancer Registry; 2014-2016 by *Dr. Valerian Mwenda* (National Cancer Control Program (NCCP), Kenya)
- **Abstract 5:** Reducing barriers to cancer treatment completion at KNH Cancer Treatment Centre – *KNH Navigation team*
- **Grant Award Abstract:** Mapping of cervical cancer screening activities and equipment in county health facilities in Kenya by *Dr. Mary Nyangasi* (NCCP, Kenya)

Emerging Issues on Academic Session on Cancer Research

1. Providing more comprehensive insurance coverage is a key solution to address affordability and access to cancer screening and treatment since cost is a major concern in even seeking medical services as depicted in the study of women living with and without breast cancer.

2. There is often adoption and sometimes adaption of management policies and medical practice in the context of insufficient research evidence. Therefore, understanding the cancer research gaps may impact policy, prioritization and hence health expenditure as was indicative in the scoping review of oncology research study.

3. Having a comprehensive cancer research agenda is important towards determining best cancer preventative methods, improving rehabilitation and patient support activities and in ensuring timely access to screening, diagnosis, treatment and palliative care services.

4. There is robust activity taking place at focal leading training and research institutions. There seems to be a mismatch between cancer focal areas of research and the cancer incidence pattern e.g. very few studies in prostrate and colorectal cancers. There is need to explore the subject areas and opportunities for further research from the data.

5. In Kenya the most common cancer amongst women is breast cancer hence the need to audit cancer diagnosis and management at various treatment centres. It emerged that MRM was the most preferred surgery and AC chemotherapy most preferred in the pilot study at Kenyatta National Hospital which is the only public institution offering comprehensive cancer care in Kenya.

6. Navigation is a patient-centric healthcare service delivery model that focuses on promoting the timely movement of an individual patient through the complex healthcare continuum amid patient navigation barriers such as fear, disability, literacy, child/adult care, perceptions and beliefs, language, economic challenges emanating from employment and loss of wages, transportation to treatment, accommodation needs for patients and caregivers who have to travel out of town for treatment, etc.

7. The types of navigators featured entailed; **Clinical Navigator:** focused on helping patients to understand their cancer diagnosis and treatment plan; **Physical Navigator:** focused on addressing the physical movement of patients through; and **Lay Navigator:** focused on helping patients to access resources both inside and outside of the hospital setting that will help them to complete treatment and improve their quality of life.
8. In the efforts to describe cancer prevalence from the National registry data from all 47 Kenya counties in the period 2014-2016, it appeared that a high cancer burden was in middle aged females and that majority of cancers reported lacked stage information. There is need for more relaying of data to the national registry for further analysis and exploration especially to feature effectively, geographical clustering of burden, cancer types and underlying mechanisms to geographical clustering in epidemiological information. Also required are clear mechanisms to ensure that there is data completeness especially on staging.

9. Despite the fact that cervical cancer is preventable through vaccination and screening and curable if detected early and managed effectively, it appears to be the 2nd overall both in incidence and mortality and leading cause of morbidity among women in Kenya! The screening coverage remains low at 16% for eligible women.

10. Following a survey conducted in April 2018 in 34 facilities across 30 counties in Kenya by NCCP-K to understand availability, status and usage of equipment supplied by GoK and partners under the Kenya cervical Cancer Prevention and Control Programme 2011-2015, it emerged that there were still major challenges that affected the efficacy in response to cervical cancer prevention and treatment. The challenges entailed; Lack of community awareness; financial constraints; Stigma and cultural issues; Staff shortage, lack of trained HR capacity and its retention; Lack of supply of key consumables e.g. pap smear kits and frequent stock outs; Lack of a room/space for screening facility e.g. Garissa, cryo not in use, Bungoma- LEEP in box, no space; For majority (80%) of the facilities, the turnaround time for cytology and pap smear results was more than eight days and majority outsourced this service.

11. Whilst looking at procurement of medical equipment, it is essential to consider the related costs in totality for sustained response to cancer burden by reviewing both direct costs that entails purchase and installation of equipment as well as indirect costs that entails periodic maintenance, training of personnel handling the equipment, HR costs, integration, technology upgrade and depreciating serviceable parts

12. In order to improve cervical cancer screening services in primary care across Kenya there is need to have in place structured cervical cancer screening programs with clear targets in the community mobilization for catchment population integrated within the health facilities. Also needed is a prioritization and budgetary allocation to raise community awareness, build HR capacity through regular trainings, purchasing of necessary medical supplies, equipment maintenance and PPPs/improve histopathology infrastructure. This includes involvement of county biomedical engineers in installation and ongoing preventive maintenance of cancer screening equipment.

ADVOCACY: POLICY AND LEGISLATION

Session Moderators: Dr Anne Ng’ang’a and Roselyne Okumu

The following presentations were shared during the session

- **Mercy Rop (AMPATH, Kenya)** on Community uptake patterns of free breast and cervical screening in Western Kenya
- **Mr. Kiptoo Steven (AMPATH, Kenya)** on Loss to follow up to cervical cancer screening and treatment program in Western Kenya
- **Mr. David Makumi (Kenya Network of Cancer Organizations (KENCO))** on Cancer Science for Cancer advocates
- **Ms. Muthoni Mate (KENCO, Kenya)** Bridging the information gap following a cancer diagnosis – the case of the cancer café
- **Ms. Nelima Otipa (Population Services Kenya)** Contextualising information, education and communication for early cancer control in Kenya
- **Henry Nndungu (Uganda Cancer Institute, Uganda)** on Harmonization of NCCN Guidelines for resource limited settings
Emerging questions, answers and issues arising in the patient management;
- Insight is required to know how to handle cases where there was evidence of discomfort of men accompanying their ailing partners to the clinics or being involved proactively in their treatment. It is felt that a discussion needs to be had with partners since this kind of withdrawal is a factor contributing to the well-being of the patients.
- There are patients using alternative medicine, specifically herbs which they don’t disclose usage of and may be counteractive with chemotherapy. How or what mechanism can be in place to ensure full disclosure so that there can be a way to establish those that are meaningful to the treatment process and those that are counterproductive and have the patient know it is their well-being being served in the holistic therapy?
- Some patients take anti-oxidants in a bid to flush out toxins or chemotherapy in the body without considering or even knowledge of the effects on the body. How do we get patients to be comfortable to talk frankly about all the treatments they are undertaking?
- There are incidents where there isn’t full disclosure to the patient about what they are ailing of especially the elderly in the care of their children who aren’t telling them that they are being treated of cancer or in chemotherapy.
- The idea of empowering the advocates with the right kind of information and messaging is appreciated because there are so many mixed messages out there that some results in deaths in many instances because they have been given so many restrictions on what they can and cannot do, eat, etc. and in their desperation the patients undertake counterproductive therapies.
- There is information required to know where one can get workshops or places to build capacity as advocates?
- Often the person charged with the responsibility to break news on cancer status is the primary health care provider (doctor) who is often constrained for time as they have other patients to see. How do you communicate the diagnosis of cancer given the short time provided?

Feedback:
The challenges faced by cancer patients are very similar in the region (Kenya, Uganda, Tanzania, Rwanda, etc). In the long term therefore once the curriculum is developed and tested in the pilot, we are exploring an East African curriculum for cancer control for advocates. Since the content will require subtle tweaking for local adaptation. Hence collaborations within the region to standardize content, is welcomed to ensure structured commentary.

Advocacy itself requires training as well as training on cancer science for advocates (as is already trademarked for cancer advocates). We have amongst us and in our networks resource persons already well versed with Strategic advocacy and they can be helpful in designing the curriculum.

Breaking news of cancer diagnosis is a delicate matter and not a one off event. The patient often breaks down the information slowly. It is therefore imperative for the doctor to be confident and to have all the facts and
communication skills to break down this information. The first instant when aware that such a test has to be done is often to confirm the existence of cancer or not for most patients. However, in some cases where the query has been done without the cancer patient’s knowledge, they are often unprepared for either outcome. Preparation for either outcome is often essential to reduce the shock of a positive diagnosis to cancer. There needs to be a plan for disclosure from the point of giving the sample where the patient is advised to be accompanied by someone they rely on for support for either outcome. Also time ought to be given to the patients to internalize the results before they are rushed into the next steps of treatment which often entail surgery too. There are various models of disclosure that can be adapted depending on case by case.

**Question:** Is there room for discussion or conversation with herbalists or practitioners of alternative medicine so that they may be involved consultatively on what would be appropriate for the well-being of the patient?

Within the Ministry of Health in Kenya there is a policy being developed with the practitioners of herbal medicine because they cannot be wished away and it is therefore important to have a structured way of dealing with them so that there is no harm to the patient. The Ministry is intentional on having a structured way of dealing with the herbalists.

**Emerging Issues on Advocacy: Policy & Legislation**

1. Basic understanding of cancer science is a critical component of cancer advocacy work
2. Cancer control advocates should have a mandatory foundation training on cancer before engaging the public, media and policy makers for ease in matching expectations and ensuring there are shared goals
3. Oncologists and Policy makers need to recognize the contribution of advocates to cancer control and treat them as valuable allies
PALLIATIVE & SUPPORTIVE CARE

Session Moderators: Dr Zipporah Ali & Dr Elias Melly Kipchumba

The following presentations were shared during the session:

- Molly Akinyi Abende (Texas Cancer Centre, Kenya) on Effects of different cancer treatments on nutrition; status of cancer patients attending Texas Cancer Centre
- David Musyoki (Kenya Hospices and Palliative Care Association, Kenya) on Psychosocial aspects in palliative care
- Dr. Charles Muteshi (Aga Khan University) on Determining response for controlled ovarian stimulation in a random start cycle and utilization of cryopreserved oocytes and embryos in cancer patients
- Dr. Andrew Odhiambo (University of Nairobi) on Communication in cancer management on
- Betsy Chelangat (Tenwek Hospital, Kenya) on Patient support for patients with terminal esophageal cancer – the Tenwek Experience
- Gladys N Mukosi (Kenyatta National Hospital, Kenya) on Sexuality in patients with Cancer
- Dr. Helena Musau (HCG Cancer Centre, Kenya) on Ethical issues
- Dr. Sayed Ali (Aga Khan University, Kenya) on Advance care planning
- Dr John Weru (Aga Khan University, Kenya) on Pain control

Full presentations are accessible on KESHO website on the link https://kesho-kenya.org/index.php/presentations

Questions & Feedback from Presentations

Determining Response for Controlled Ovarian Stimulation - Dr Charles Muteshi

There are dilemmas foreseen that one needs to address before fully committing to cancer treatment especially where the affected is a reproductive organ. Do you preserve it or not? In the event of death, what would one wish to be done with e.g. the stored ‘eggs’? In the event of donation too key details of the donor need to be disclosed for seamless transitions for them to be put to use.

Communication in Cancer Management - Dr Odhiambo

- About communication especially in the government hospitals there is a loop since the initial communication determines the journey with the patient. What are we doing to ensure that it is effective given that practitioners are also often overwhelmed?
- How many patients understand English and what efforts are in place to ensure that they are communicated to effectively say through translation or diagrams?
- The communication presentation should be for all especially the radio-oncologists and oncologists especially in handling delicate issues such as sexuality and preserving fertility and permission to discuss

Feedback:

“Not enough is being done yet because for a system to work there is need to have patients communicating freely on all matters to do with healthcare. We need to have effective communication and more so a human component to it. We need human personnel well trained in communicating specifically in matters to do with cancer and other terminal chronic diseases/illnesses. We need to start from somewhere and this should be as far as the existing health centres not necessarily at the high level of bigger facilities that have information applications and mechanisms such as navigator which are sufficient. The gaps however, are especially in the rural populations where there aren’t personnel communicating or walking with the patients and hence there are cases where a patient has only a letter they are given and told to go to the referral hospital without much information. Some patients have biopsy reports dating even 3 months old and even having made several visits to the clinics haven’t
Effects of Cancer Treatment on Nutrition – Molly Akinyi Obende

- Does nutrition affect treatment of cancer? Most confusion seems to emerge from nutritionists who have conflicting positions on what is appropriate and what isn’t and many myths about diets. What is the best message we should give to cancer patients about nutrition.

“From the study shared, there was no significant relationship between the type of cancer treatment and nutrition. It did not come out significantly but this kind of conclusion can only be drawn after a long time of study. What was evident though was that the type of treatment and side effects experienced during treatment does affect nutrition habits. Communication on nutrition is key in order to address the emergent myths. The simplest solution in nutrition is a balanced diet and in moderation. Most patients are aware that good nutrition is important for efficacy of treatment. However, there is a need to debunk the myth that proper nutrition is expensive to patients. Because of the lack of communication there is the tendency for most new patients upon diagnosis to excavate information from social media and google application some of which may not be grounded in facts hence more misleading information in the public domain. The presence of nutrition quacks preying on the vulnerability of patients also sets back recovery and treatment. The presence of untested and little known supplements complicates the scene more.”

Emerging issues on Palliative Care & Diagnostics

1. Nutrition education on cancer treatment and a diet plan should be incorporate as part of treatment plan for cancer patients both in and outpatient and extended to the care givers based on the type of cancer and treatment they are undergoing to reduce risk of malnutrition and weight loss and ultimately to improve prognosis

2. Health care providers should acknowledge patient’s emotions, explore the meaning of these emotions and encourage patients to say more about what may be difficult topics to broach to lessen the feeling of helplessness and to raise new opportunities for patients to find comfort

3. As patients struggle to find closure in their lives, active listening and empathy have great therapeutic value

4. Evidence is starting to accumulate showing that there are reasonable chances for women to achieve pregnancy in controlled ovarian stimulation to start cycle and utilization of cryopreserved oocytes and embryos in cancer patients hence the need to allow the patients to discuss fertility preservation options

5. Given the enormity of the anticipation of, perception or reality of a cancer diagnosis, communication and disclosure needs to be tactful, professional as well as sensitive to the patient. Therefore health care providers need to prepare well for the same and future counsel with full clarity and facts of the case. This is because patients and their loved ones are often scared, stressed, lonely, worried, doubtful, self-blaming and suffer mostly from severe information deficiency.

6. Patient centred communication should be effective in relaying health outcomes by responding to emotions, exchanging information, managing uncertainty, enabling patient self-management, fostering healthy relationships and making decisions

7. Patients living with cancer need to feel that interactions with them transcends just what the job is to the care giver and consulting specialist but is a human experience where there is real care. Sometimes all they need is a touch on the hand, touch on the shoulder or just a smile letting them know that they are there for them.
8. Many patients struggle with the perceived altered sense of sexual or intimate self when their reproductive sensual and sexual organs have cancer. This coupled with treatment of some cancers create a lot of embarrassment that alter a person’s self-esteem and social functioning.

9. Ethical issues need to be considered in cancer treatment before pursuit of oncological treatment towards end of life with the dignity of the patient in mind. The Ethical principles to be considered in palliative care entail prolongation of life; withholding or withdrawing treatment; Do Not Resuscitate (DNR/AND); Medical futility; Euthanasia; and Double effect.

10. Cancer pain has various effects in one’s physical & social functioning resulting in emotional distress and a myriad of societal consequences such as substance abuse, disability, loss of work and effect on healthcare utilization. Hence there is need for an effective pain relief program that entails both non-pharmacological and pharmacological pain therapy with a comprehensive pain assessment, personalized pain goal, longitudinal assessments, predictive factors for cancer pain control and evidence based pain education & information.

### Session Moderators:

Session Moderators: part 1 Dr Gladwell Kiarie & Rajendra Chauhan; & part 2 Dr Jesse Githanga & Dr Richard Njoroge

The following presentations were shared during the session:

- **Prof. Ola Khorshid (Cairo University, Egypt)** on Sequencing of therapy in hormone receptor positive advanced breast cancer
- **Prof Ronald Wasike (Aga Khan University, Kenya)** on Local perspectives of surgical management of breast cancer
- **Dr Peter Rotich (HCG Cancer Care, Kenya)** on Hypo fractionation versus standard fractionation radiotherapy in post Mastectomy early stage breast cancer
- **Discussing Stormy Waters; Navigating Clinical Conundrums in Prostate Cancer** by **Multi-disciplinary panel of**
  - Dr. Sitna Mwanzi – Medical Oncology – Aga Khan University, Kenya;
  - Dr. David Kimani-Urology – Kenyatta National Hospital, Kenya;
  - Dr. Ahmed Komen-Radio-oncology – Aga Khan University, Kenya;
  - Dr. Parmenas Okemwa – Pathology – University of Nairobi, Kenya;
  - Dr Alfred Odhiambo – Radiology and Imaging - University of Nairobi, Kenya
- **Dr. Samuel Ng’uku (Aga Khan University, Kenya)** on Role of PET CT in hematological malignancies
- **Dr. Rabia Mukadam (Lancet Kenya, Nairobi)** on Oncogenetic testing KRAS, BRAF and EGFR at a private referral lab in Kenya – A 5-year experience
- **Dr Shaikhali Barodawala (Govt Medical College, India)** on Morphology to molecular – lung and colorectal cancers
- **Dr Michael Mwachiro (Tenwek Hospital, Kenya)** on High urinary polycyclic aromatic hydrocarbons concentrations in Bomet Kenya, a region with a high incidence of esophageal squamous cell carcinoma
- **Dr Peter Oyiro (University of Nairobi, Kenya)** on The Clinicopathological Profile of Diffuse Large B-Cell Lymphoma at Kenyatta National Hospital
- **Amusalu Degu (USIU, Kenya)** Drug related outcomes/problems among patients with cervical cancer at KNH
- **Dr Adarsh Chandramouleswar (HCG Cancer Care, Nairobi)** on Intensity modulated radiation therapy in prostate cancer – a clinical experience
- **Dr Maria Isabel Bermúdez Domínguez – Cuba** on Vidatox 30CH – its use in cancer patients in Cuba
- **Dr Hajj Mansor Manel – Tunisia** on Evaluation of clinico-pathological aspects, prognostic factors and outcome of biliary tract cancers – a 5 year Tunisian monocentric experience

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Emerging Issues on Clinical Care & Diagnostics

1. Critical evaluation & clinical correlation are important in breast cancer treatment
2. Standardization, Quality Control & Quality Assurance are required to help ensure accurate results
3. The goal of treatment is to create a balance whereby in spite of the side effects of the treatment, there is a positive balance that ensures that it reduces symptoms, increases survival and improves quality of life of patients. This includes creating convenience, availability and reasonable financial implications
4. In determining the treatment to start it is best to weigh whether hormonal treatment or chemotherapy would be the best approach for the patient and if it would be single or a combination and the status of the patient if they may be in a visceral crisis
5. Future trials design ought to explore enrollment of both pre and post-menopausal women and men in new endocrine-based strategies for more custom outcomes
6. There needs to be more meaningful interactions between nurses and pathologists to avoid having many negative results that reduce the scope of query
7. Discourage biopsies for the imminent side effects
8. There is need to incorporate hypofractionation RT into clinical policy framework in management of breast cancer in Kenya because it has short treatment schedules and lower cost treatment; reduced waiting times by transiting more patients into treatment; mitigates impact of disease progression and outcomes during waiting times; it addresses the patient’s transport and accommodation logistical challenges; it is cost effective especially for resource strained geographical areas and it reduces the burden and strain on the national healthcare expenditure in general
9. Many lymphomas are curable, but treatment side effects reduce the length and quality of patient’s lives hence the need to think through anatomical versus functional change in imaging and radiation therapy planning.
10. Surveillance PET scans should be discouraged due to the residual side effects and the timing for PET CT needs to be well planned considering the staging between chemotherapy and radiotherapy
11. There are labs now with multiple centres across Africa such as Lancet Group of Labs that has attained vast experience (25years) in molecular pathology test including PCR, FISH and NGS tests. For years Kenya had been sending molecular oncological tests to South Africa until the services were introduced locally and now more clinicians are getting more sensitized and the molecular testing is gaining more popularity amongst oncologists. It is expected that with wider availability of targeted immunotherapy in the country, there will be a higher uptake of the same for various cancers.
12. With the New benchmarks in e.g. Lung cancer pathology from morphology to molecular data gathering and analysis there has been mechanisms of resistance which have been identified and resultant to that new therapies have been developed. Additionally there has been predictive molecular biomarker testing to direct targeted therapy. Body tissue using molecular testing is used in smaller proportions for more outcomes.
13. Liquid biopsy is another option to diagnostics when all else fails in obtaining tumor cells or when the patient is unwilling for a repeat or fresh biopsy and are believed to capture the entire tumor genome
14. In immunotherapy for lung cancer there has been several therapies approved and granted by FDA e.g. nivolumab to treat people with metastatic squamous non-small cell lung cancer who no longer respond after chemotherapy; pembrolizumab to treat people with metastatic non-small cell lung cancer who expressed PD-L1 and no longer respond after chemotherapy amongst others
15. We should be prepared to adopt newer diagnostics such as nano-string
16. Some of the limitation in diagnostics emerge from poor record keeping, poor retrieval of tissue blocks from some laboratories and lack of uniform system of resporting and adherence to the WHO system of classification.
17. In cancer therapy, there is a tremendous potential for drug related problems due to high toxicity & the complexity of the regimens. Therefore, there should be routine medication review and need for clinical pharmacists interventions in multidisciplinary team to minimize drug related problems.

18. Cisplatin a chemotherapy medication has been found to pose significant chronic complication after treatment in a way that may affect the patients quality of life while on or post chemotherapy from a study conducted at the Kenyatta National Hospital. Long term prospective studies are needed. Patients should be screened when treated with neurotoxic chemotherapeutics for Peripheral neuropathy.

HEMATOLOGICAL MALIGNANCIES IN ADULTS & CHILDREN

Session Moderators: Prof Abinya & Dr MD Maina

The following presentations were shared during the session

- Dr. Paresh Dave (MP Shah Hospital, Kenya) on Primary myelofibrosis – diagnosis and management
- Dr. Anne Mwirigi (Aga Khan University, Kenya) on Novel perspectives on the management of chronic immune thrombocytopenia
- Dr. Doreen Karimi (Gertrudes Hospital, Kenya) on Clinical application of deferasorox – practical patient management
- Dr. Mutura Dominic (KNH, Kenya) on Clinical and pathologic features of Non-Hodgkin’s Lymphoma among patients seen at KNH
- Dr. Chirag Shah (Apollo/CBCC Cancer Centre, Kenya) on Autologous HSCT for Multiple myeloma in a developing country
- Mr Hillary Kiprorno – AMPATH on Symptoms manifestation of MM at diagnosis – a retrospective review from MTRH
- Prof Abinya et al on High neutrophil counts in circulation could be the major cause of clinical manifestations in CML
- Ms Korir Rachel (AMPATH, Kenya) on Factor VIII inhibitors and levels of CD4 and CD25 positive regulatory T cells among patients with hemophilia in Western Kenya

Full presentations are accessible on KESHO website on the link https://kesho-kenya.org/index.php/presentations

Emerging Issues on Hematological Malignancies in Adults & Children

1. Survival and quality of life are often substantially compromised but High Risk patients can now benefit from the use of JAK ½ inhibitors.

2. Iron overload in clinical practice is often an under recognized cause of morbidity and mortality of patients undergoing chronic PRBC transfusions. Monitoring of iron overload should therefore be done by taking a transfusion history, laboratory and imaging studies which help estimate total body iron burden. It’s treatment involves phlebotomy, erythracapharesis and iron chelation which provide a way of getting rid of toxic iron deposited in organs at risk and prevent/reverse organ damage

3. In Moi Teaching and Referral Hospital, multiple Myeloma is the 4th common cancer and 2nd most common hematological malignancy. Multiple myeloma patients at MTRH presented with diverse symptoms at diagnosis. To reduce late detection a tool for screening high risk individuals must be developed.

4. Lack of data, lack of laboratory expertise an high cost of reagents has led to sub optimal management of patients hence the risk of morbidities, mortalities and frequent hospitalization in Kenya.

5. The greatest limitation to successful treatment of 20-30% of patients with Hemophilia is the development of inhibitors.
EDUCATION

Session Moderators: Dr Nazik Hammad & Dr Fredrick Chite

The following presentations were shared during the session

- Gladys Mwango /Dr. Anthony Nderitu (KNH, Kenya) on Radiation oncology
- Dr Nazik Hamad (Queens University Cancer Centre, Canada) on Medical Education
- Dr Andrew Odhiambo (University of Nairobi) on Medical oncology fellowship at University of Nairobi
- Dr Fred Chite (AMPATH Oncology and Haematology, Kenya) on In country oncology training at Moi University/AMPATH oncology

Full presentations are accessible on KESHO website on the link https://kesho-kenya.org/index.php/presentations

Emerging Issues on Education

1. It is imperative to increase the cancer personnel in Kenya because there are only 89 cancer personnel in Kenya that comprises 10 medical oncologists, 10 radiation oncologists, 6 gynae oncologists, 27 therapy radiographers, 6 medical physicists and 31 oncological nurses in 2018!! Making the ratio to those living with cancer to broad to render quality treatment across the board.

2. There are available fellowship training programs in Kenya in gynae oncology in Moi and University of Nairobi and Masters training on radiation oncology at the University of Nairobi

3. Majority of practicing oncology physicians trained outside the continent but that situation is now changing because of the need to train cancer specialists locally.

4. High educational and research standards are crucial in resource constrained settings because high quality professional leadership is crucial for progress; needed for research in prevention, understanding natural history of disease and response of treatment; due to allocation of limited resources; ethical consideration and because of patients and communities often pay for the services out of pocket.

5. When there is treatment and palliation, people are more likely to listen to messages on prevention and surveillance

6. Countries that have invested in local training programs coupled with some degree of universal health coverage often have significant achievements in terms of delivering cancer services

7. Professionals invariably are the leaders, planners and policy makers of health systems and are also an invaluable resource for training of community workers.

8. For many years there haven’t been training opportunities locally such that as at Jan2018 only 7 medical oncologists in Kenya. Yet the demand is real considering that majority of the cancer burden is metastatic and our cancer profiles are different

WORKSHOPS

CANCER RESEARCH TRAINING AND SCIENTIFIC WRITTING

Session Moderators: Christine Ngaruiya/Miriam Mutebi

The following presentations were shared during the session

- Dr. Christine Ngaruiya (Yale University) on Introduction and Basics in Research
- Gershim Asiki (Africa Population Health Research Center) on Research basics
- Gershim Asiki (Africa Population Health Research Center) on Manuscript writing
- Prof Michael Chung (Aga Khan University) on Grant writing
- Prof Elizabeth Bukusi (Kenya Medical Research Institute - KEMRI, Kenya) on How to get published
- Dr Miriam Mutebi (Aga Khan University, Kenya) on Introduction to qualitative research

Full presentations are accessible on KESHO website on the link https://kesho-kenya.org/index.php/presentations
Emerging issues on Cancer Research Workshop

1. Cancer research is a global priority and also because cancer is a leading cause of death and disability in Kenya yet lacks sufficient primary data for effective approach to and response to treatment. Research has the greatest impact on health: in advocacy, policy, programs and treatment.

2. There is a lot of research conducted that is not published and that creates a lot of duplication and waste of resources and respondents time.

3. To bridge the gap in research competency the real key is, one needs to find a strong research mentor that can provide guidance and they do not necessarily have to be in one’s specialty.

4. There are grants provided out there for descriptive study as well as published data that isn’t being accessed because of lack of knowledge of their existence.

5. Qualitative work enriches understanding of a phenomenon and can be used in combination with quantitative work to paint a more holistic picture.

6. There are ethics imperative in research to ensure that there is a reasonable balance of risks and benefits to participants both physically and psychologically. There must be clear communication of risks and benefits to participants and participants must have the freedom to choose to participate or not.

PATHOLOGY AND RADIOLOGY

Session Facilitators: Dr Miriam Mutebi & Dr Shahin Sayed (Aga Khan Hospital)

There is a paradigm shift in cancer diagnosis whereby tissue samples no longer only used for microscopy but has also become an analyte. As a result standardization is a critically important element which begins with tissue handling coupled with time fixation and effective recording at required intervals. Fixation is a critical step in pre-analytic preparation of tissues for IHC (Immunohistochemical). The time from tissue removal to initiation of formaline fixation is “Cold Ischemic Time” and progressive loss of immunoreactivity is due to degradation of macromolecules. Time of tissue collection should be recorded and the lab must capture the time to fixation.

The session room was set up with 4 demonstration stations featuring:
1. preparation of formalin
2. pre analytic specimen handling by universal standards
3. FNA table for cytology showing how to perform fine needle aspirate and make confirmations indicated in follow ups and good indications for breast cancer, surgical station showcasing how to make the right orientation i.e. mark specimen and label it well for removal with clear margin; and
4. Sentimag techniques and new technology, safe appropriate technique currently available in the market that would be viable for low income resource setting. This was necessary because specimen handling starts from surgical station to obtain specimen and how specimen is handled is critical in management and outcomes for good treatment solutions. It is essential to be proactive in engaging the pathologist for best outcomes for patients.

In the ensuing practical sessions a presentation by Julie Belloni also an experienced palliative care nurse showed magnetic marking using a “Magseed” or “Sienna Magtrace”. The emphasis of the presentation illuminated the fact that cancer in the breast is not the killer, metastatic cancer is. Through the Sentimag System she demonstrated that it was possible to offer quality treatment to any patient anywhere especially given that many patients across Africa are underserved due to lack of resources, long distances and financial constraints. From the discussions it was demonstrated that mastectomies and axillary dissections are still widely performed and these procedures have their own morbidity and there is need to prioritize breast cancer care from national to regional and across the divide of insured and non-insured.
a) Sienna /Magtrace is a magnetic tracer for easy localisation of sentinel lymph nodes. The tracer can be injected 7 days to 20 minutes before surgery. It is non-radioactive, no signs of anaphylaxis, easily available, and can be used by any clinician anywhere.

b) Magseed has made impalpable localisation of lesions easier and less stressful for patients. This can be placed long term and saves the patients undergoing multiple pre-operative procedures.

Emerging Issues
1. The accuracy of the method used in testing determines the appropriate application of treatment and leads to significant improvements in survival
2. Standardization, Quality control and quality assurance are required to help ensure accurate results
3. Critical evaluation & clinical correlation are important
4. Most of the issues with testing have occurred because of variation in pre-analytic variables, thresholds for positivity, and interpretation criteria.

VALUE IN CANCER CARE

Dr Nazik Hammad of Queens University Cancer Centre Canada

Cancer care is complex and complicated hence value is derived from delivering best care at lowest possible cost; avoiding financial toxicity to patients, family and society; ethical considerations especially in relationship with pharmaceutical and diagnostics companies; and effective stewardship of available resources. The ultimate goal therefore would be to practice care at the highest level of humanism ensuring economic benefits, equity in health care and universal coverage, effective governance and standardization of practice.

Cancer patients are treated to live longer as well as to live better. In clinical context therefore the endpoints would be patient centred clinical endpoints ensuring overall survival (OS) and health related Quality of Life (QOL), now known as PROs and Tumor Centered clinical endpoint that ensures progression free survival (PFS).

There are efforts globally towards value determination on cancer control and treatment regime and choosing interventions wisely. After careful consideration by experienced oncologists, ASCO highlights ten categories of tests, procedures and/or treatments whose common use and clinical value are not supported by available evidence. These test and treatment options should not be administered unless the physician and patient have carefully considered if their use is appropriate in the individual case. These items are provided solely for informational purposes and are not intended to replace a medical professional’s independent judgment or as a substitute for consultation with a medical professional. Patients with any specific questions about the items on this list or their individual situation should consult their health care provider for the sake of good order.

Canada on the other hand also has six guiding principles in making a choice. These include that the practice must;

1. have evidence of low value and/or harm,
2. be frequently used in the country (Canada),
3. have potential for reduction,
4. be clear and understandable,
5. be feasible and measurable, and
6. be relevant and appropriate to the country (Canadian) context.

Deriving these lists and standards entailed installation of competent multidisciplinary task forces and a supporting budget as was the case in ASCO since 2007. In Canada a framework driven consensus process and a series of electronic surveys and voting processes were used to capture consensus. What needs to be considered is the relevance of this process in Africa or low and middle income countries and how to go about generating and updating the list.
UPDATE IN CHILDOOD CANCERS

Presentation by Dr. Fatma Abdalla

The presentation entailed sharing of age specific and adjusted data of incident rates for childhood cancers by ICCC groups and related treatment options of each. The childhood cancers featured in Kenya were Lymphoma, Acute leukemia, Brain tumors, Nephroblastoma, Retinoblastoma, Neuroblastoma, Rhabdomyosarcoma and Osteosarcoma all of which occur often before 15 years of age and responsible for 10% of childhood deaths. The most common are Lymphoma and Leukaemia. Overall prognosis in pediatric oncology is generally good with long term survivors but may have sensitivity to treatment with growth issues and CNS sensitivity.

MAPPING STAKEHOLDERS TO ENHANCE COORDINATION OF CANCER PREVENTION CONTROL

Presentation by Dr. Alfred Karagu of the National Cancer Institute of Kenya (NCI-K)

The relevance of mapping of stakeholders is to ensure that there is prudent use of available resources and reduction of redundancies or possible overlaps. Through NCI-K mandated to coordinate and centrally coordinate cancer prevention activities there is an opportunity to develop functional database to keep track of various stakeholders nationally. Efforts towards the same were rolled out between October 2017 and May 2018 in collaboration with NCI-US with the aim to determine the geographical distribution and scope of cancer prevention and control activities as well as sources of financing. It emerged that there is a strong stakeholder presence in most parts of Kenya with main areas of focus being training, screening and advocacy and awareness. The most commonly screened cancers were breast and cervical cancer. Areas in Kenya with the highest presence of stakeholders are Nairobi, Uasin Gishu and Kisumu counties. The most common source of funding is grants.

SURGICAL ONCOLOGY

Presentation by Dr. Miriam Mutebi of Aga Khan University, Kenya

Surgery is one of the major pillars of cancer care and control. It can be preventive, diagnostic, curative, supportive, palliative, and reconstructive. In 1970 only 15% of cancers were reported in low and middle income countries but the predicted proportion by 2030 is 70%. Notably, mortality ratio of cancer is lower in high income countries (46%) compared to low middle income countries (75%). Globally, less than 25% of patients have access to safe affordable timely surgery according to reports by Globocan in 2018. More than 80% of cancer patients globally require surgery and it is projected that 48 million such surgeries will be required by 2030 according to the same report. There are clear disparities in the distribution of services according to Global Surgical Commission especially in the low middle income countries whereby so far there are 143 million additional surgical procedures needed yet only 6% of the annual global surgical procedures are done. There is a great unmet need in Eastern, Western, Central and Sub-Saharan Africa as well as South Asia with 33 million individuals facing catastrophic health expenditure.

There is need to consider having innovative approach and a paradigm shift for solution setting up multisystem approaches that are custom to the regional nuances such as more cancer surgeons and healthcare workers at cancer treatment centres in low middle income countries making diagnosis, providing surgical treatments, chemotherapy and follow-up. Further, scale up efforts to improve access to oncological surgical care. There is a need for introspection looking at procedures done, the outcomes and an expanded workforce advocating for improvements within oncological centres urging surgeons to be catalysts for change, developing communities of
practice through networks, driving for research that is outcome based, deeper, extensive and meaningful collaborations and communications and ensuring feedback and buy-in from patients.

In Kenya the specific priorities should entail;
- Better regulated systems – with better and robust documentation, electronic record keeping
- Reflective practice with regular audits, outcomes research
- Partnerships, centralization of surgical oncology services with clear referral patterns
- Education and training building more women’s surgical oncology teams and multidisciplinary teams
- Investment in supportive services such as pathology (featuring tele-pathology, telementoring), imaging and radiotherapy
- Extensive area specific research
- Patient care initiatives

DEVELOPMENT OF CONSOLIDATED CANCER SCREENING GUIDELINES IN KENYA 2018

Presentation by Dr. JP Bor Malenya of National Cancer Control Programme Kenya

Leading cancers in Kenya are amenable to screening yet there are approximately 64% late diagnosis at stage III and IV. Cancer is a leading cause of death in Kenya with 45% rise since 2012 to date. Leading cancer deaths are oesophageal, cervical and breast also the leading incidence cases including prostate and colorectal. It is therefore imperative to ensure that there is prevention, early detection and effective screening mechanism to address the cancer burden. Through the National Cancer Control Strategy (2017-22) efforts are in place to ensure that national guidelines are in place for cancer screening, early diagnosis including referral and follow up mechanism. The objective of the guidelines are to ensure cancer screening is standardized; screening operational protocols are provided; referrals are streamed along the levels of care and ultimately, to improve treatment outcomes.

The guideline development panel is constituted by the National Cancer Control Program (Ministry of Health) composed of multidisciplinary teams including subject matter experts from MOH, Academic institutions, Health research organizations, Civil society organizations, Cancer specialists and County departments of health representatives. Guideline for Kenya is developed through multi-stakeholder effort and is consolidated, standardized, evidence-based and customized to the local situation. In the guideline formulation special considerations have been placed on; current evidence citing relevant research publications; International best practice - Existing international guidelines; Guidance statements from cancer care organizations globally; Local context; and Expert opinion/consensus - where there was paucity of evidence.

The guideline specifies screening activities at each healthcare level and roles of various healthcare providers. It is to be used to streamline cancer screening activities and ensure uniformity across the health sector, reduction in cancer morbidity & mortality, reduction in cancer treatment costs and enhancement of the universal health coverage.

Notably, an individualized patient-centered approach is advocated for in implementing, patients’ rights are a high consideration and the guidelines not a basis to deny services, strengthening of the referral systems is important to ensure optimal service delivery, screening must be part of a comprehensive cancer control plan and effective dissemination of the guideline is important for full impact to be realized.
Patients in every socio-demographic group are vulnerable to financial difficulties as a result of cancer diagnosis which ultimately plunges them or exacerbates poverty in their households. Financial vulnerability is often occasioned by either, their affected livelihood or employment circumstances as well as the financial support available to them in their ecosystem which may include depleting of financial savings due to continued treatment. Cost of healthcare is a global concern and cancer management costs are so high that it becomes a burden to people diagnosed with cancer, their families and society as a whole. The doctrine of fair price (‘justum pretium’) doesn’t hold well in oncology care due to high costs of surgery, inpatient care, consultations and repetitive diagnostic and staging investigations. This coupled with secondary indirect costs such as transport, lost man hours, nutrition and accommodation where treatment is sought away from home-county compounds the financial burden and compromises access and affordability of optimal healthcare.

Other issues therefore manifest when cancer patients are uninsured such as;

- Fewer hospital visits by cancer patients
- Delay in health seeking when unwell
- Increased mortality due to late diagnosis, loss of follow up and default in treatment
- Less care during hospitalization
- Inability to procure much needed tests and procedures where costs are high
- Higher in-hospital mortality rates

Most health insurance thresholds are unable to cover most oncology targeted interventions due to prohibitive premium limits. Financing requires concerted effort from multi-sectoral players who currently function in a very competitive environment. The Government needs to be lobbied along with investors and medical suppliers to make cancer intervention services more accessible and affordable. Screening and palliation needs also require dialogue and discussions for the wellbeing of the cancer patient. Quality assurance is also imperative for meaningful and greater impact.

In 2014, a forum was organized by Ministry of Health, US National Cancer Institute and Global Health convening key players in development of cancer registry through a multi-sectoral Cancer Registry Technical working group. The working group had both local and global representation comprising of KEMRI, MoH, UoN & KNH from Kenya and internationally based Dr. Sandy Dawsey, Pr. Rosemary Rochford. The specific objective of the TWG was to

- Strengthen existing population-based cancer registries (Nairobi, Eldoret, Kisumu) to attain high quality data (supported by NCI, USA)
- Expand population-based registries (additional regions)
- Link the registries at KEMRI to have a centralized population-based cancer registry programme

Activities following approval of proposal by the scientific and ethics committee, entailed a one week course held in Nairobi targeting all the selected counties, onsite trainings of individual registrars at selected facilities and ongoing process of collection, cleaning of data and analysis generation of factsheets and reports to date funded for 2years. by GoK (National Treasury) and US NCI. It also involved MoU signing with selected counties, training of registrars.
on installation of custom databases and technical support. Data collected and analyzed included information regarding the top cancers in women, men and children as well as age profile of cancer cases. The results revealed that in Kenya most common malignancies among women was breast and cervical cancer and respectively among men it is prostrate and oesophageal cancer. Further, it illuminated the need for intervention programmes to address the high burden of disease in communities particularly, HPV vaccination of girls and boys, cancer screening at least once in two years, education and awareness to reduce stigma thereby also addressing cultural barriers and access to care including palliative care. It was also clear that there is need for more research in the African setting.

Ultimately, there is need to invest in population based registries that cover a broader representation of population in the country. Capacity building is key to ensure that data generated is of high quality and that there is adoption of new technological methods in generating data at point of care systems and electronic medical care systems. There is need to also improve death registries systems to harmonize civil registration of births and deaths.

CANCER CONTROL PUBLIC HEALTH AND PRIMARY CARE ASPECTS & OPPORTUNITIES

Presented by Dr Anne Ng’ang’a of the National Cancer Control Program Kenya

The vision of the National Cancer Control Programme is a Kenyan population with a low burden of cancer. This is to be achieved through implementation of a coordinated and responsive cancer control framework that leads to reduction in incidence morbidity and mortality through effective partnerships and collaborations for prevention, diagnostics, treatment, palliation and financing of cancer control activities to improve well-being of Kenyans. This is tackled through 5 pillars. Namely:

1. Prevention;
2. Diagnosis, Registration & Surveillance;
3. Treatment, Palliative Care & Survivorship;
4. Coordination, partnership & financing; and
5. Monitoring, Evaluation & Research

The Kenya constitution 2010 mandates the national government with policy development. This along with other global and national frameworks such as sustainable development goals, Kenya Big 4 action plan and vision 2030 speak to the national aspirations to achieve having a country with low and well managed disease burden. There is every effort even by World Health Organization to ensure that there are bold and innovative solutions to curb non-communicable diseases (NCDs) such as heart and respiratory diseases, cancers and diabetes. The involvement of political leaders is also appreciated in advocacy work to ensure resource allocation in national response to disease burden.

There is limited infrastructure for cancer control. As a priority, NCCP-K wants to ensure that patients are diagnosed in a timely manner hence established a comprehensive national oncology reference ‘lab’ based at Nairobi for a start as adequate infrastructure is built across the country then gradually build the capacity of the counties. The national oncology lab through a referral system is able to receive samples from across the country and results sent back at the requesting stations in the counties. In its experience it will also share how they work, the outcomes and learning on areas that need improvement. Currently, the national oncology lab is in the process of development of policy on how to handle specimen, operational standards & guidelines for imaging & pathology diagnostic work-up.

A National cancer registry has also been established at the Ministry of Health towards expansion of cancer registration services. The data compilation is an ongoing initiative whose content will be periodically shared with
County governors who are so far enthusiastic in their engagement to ensure effective data collection and cancer control at devolved levels in the counties. There are efforts to ensure data is generated from the counties and thereafter sent to the central registry in Nairobi for analysis and further disseminated back. This also includes integration of cancer registry data collection tools into health information systems as well as capacity building of HRIOs in cancer registration to strengthen health systems for sustainability.

Development of policy featuring treatment protocols and guidelines also underway for establishment of cancer centres as well as palliative care in hospitals to ensure minimum standards are attained in the set-up. It has been noted that there are several places operating as cancer centres that don’t have minimum requirements of such a facility hence the need to ensure there is a standard by which these facilities are developed to safeguard the cancer patients from being taken advantage of. That way, patients will be encouraged to go to approved cancer centres with the requisite infrastructure, human resource and clinical support much needed for cancer care.

Due to limited capacity, looking to also improve infrastructure, by establishing chemotherapy centres at the existing district/county hospitals and also integration of palliative care within. So far there has been the distribution of equipment such as chemo chairs and related accessories to some district hospitals and this is an ongoing process to build capacity of county hospitals as well as training of personnel to handle cancer care. NCCP-K is committed to engage with county governments to ensure that health facilities have at least the 1st line of treatment care for cancer readily available at county level. Some of which are very progressive and have even identified funding for the same.

Currently, also making efforts to see how patients can afford cancer treatment hence looking to review, the oncology package under NHIF to increase enrollment and to integrate effective multidisciplinary cancer treatment in the same.

NCCP-K has also created a specific Technical Working Group (TWG) of survivors/cancer warriors to ensure that there is knowledge and information being shared constantly on what the needs of a cancer patient are driven by their tag line “Nothing about Us without Us” ensuring participation, ownership and inclusion in decision making and plans of cancer survivors.

All efforts are void without effective coordination hence there are in place coordination structures in partnerships that drive technical working groups and oversee the partnerships at both national and county levels.

Financing is a huge component in cancer control intervention and management therefore looking into sustainable financing through cancer fund exchequer, NHIF, public and private partnerships. There is a proposal and strategy underway to set up a cancer fund in collaboration with like-minded legislators to ensure donors finance cancer control in diverse aspects as well as have the national treasury invest in various aspects of the same being that the government is expected to be a lead agency in mitigating health complexes in this case, those derived from the cancer burden.

Partnerships are also sought and encouraged in the establishment of comprehensive cancer care centres. Hence the public and private partnerships are much appreciated to leverage on readily available and existing resources in the trajectory of growth. These partnerships entail the academia, society/general public, civil society, national & county governments, regional and global communities embracing everyone because only through partnerships do we derive meaningful impact.

To track implementations there are monitoring mechanisms to make sure there is effective tracking and achievement of set goals captured in annual monitoring review reports that recount on the progress and scorecard
on the implementation of strategy in place as well as the research agenda in a bid to understand better the complex effects derived from the cancer burden.

Outcomes on Where Kenya is in Cancer from Plenary discussions
1. There is a Stigma when seeking financial support for cancer due to both cultural perceptions and ignorance
2. The National Health Insurance doesn’t cover the bulk of the cancer treatment needs so far
3. There exists a fear of diagnosis amongst women regarding the adverse effects causing possible delay in accessing treatment hence often late treatment
4. Screening needs to be improved and accessible at local health centres
5. Drug availability needs to be addressed
6. Cancer burden increasing
7. Many are doing research and are not necessarily getting published
8. There is need to add other cancers in the categories such as pediatric cancers
9. For guidelines to realize full impact, there is need to ensure that there are guideline formats for specific cancers
10. There is need to consider psychosocial support along with the screening activities given that women are afraid of cancer and perceived danger

SOCIAL & COMPLIMENTARY CONFERENCE ACTIVITIES

KESHO organizing committee duly acknowledges all the stakeholders of the society and being responsible also for the procurement and management of the partnership, sponsorship and exhibition functions of the conference, made every effort to ensure that there was interaction and representation of all the benefactors of its initiatives. This was through the KESHO AGM, Dinner gala and fundraising concert featured in summary below.

KESHO AGM

Institutionally, KESHO also took advantage of the convening of the members to provide updates and review functional structure and operational processes of KESHO through the AGM thereby allowing the KESHO focal points to have a glimpse at their milestones, organizational working model and share best practices and lessons learnt and ultimately have guided discussions and mutually agree on the way forward and action areas.

Ultimately, the program priorities for 2019 were identified during the conference and they revolved around the following key-issues:
1. Strengthening/supporting KESHO activities
2. Practical workshops
3. Reaching out to sector players & dependants through
   - Learning sessions and exchange of ideas
   - Wellness & Health programmes
   - Research Activities
4. Capacity building for KESHO focal persons and membership

TEXAS CANCER CENTRE DINNER GALA

Texas Cancer Center as a gold sponsor to the KESHO conference packaged and exciting dinner gala with a vibrant programme on the 2nd day of the conference (16th November 2018) which included a fashion show by cancer survivors from the Uwezo cancer support group members and also graced by celebrity gospel artist Solomon
5th KENYA INTERNATIONAL CANCER CONFERENCE
15th – 17th November 2018 - Nairobi Kenya

Mkubwa who performed and renowned comedian Ewaso Nyiro who delighted the revelers at the dinner. It was an opportunity for the KESHO conference delegates to put a face to some of the benefactors of their expertise and services as well as hear more on their journey and how further to enrich the services offered to those living with and are affected by cancer. Texas Cancer Centre (TCC) as a player in the sector offers treatment that focuses on linear accelerator radiotherapy, chemotherapy, cancer screening and awareness creation, palliative care and 24-hours in-patient care and emergency response.

The dinner was also graced by the presence of the Nairobi Women Rep legislator Hon. Esther Passaris who reinforced her support for the agenda of the KESHO 5th Kenya international conference and hailed the service that was offered by Texas cancer Centre to people living with cancer.

The event featured and had great following on mainstream and social media which made for great publicity for the conference.
EXHIBITION

Through the entire duration of the conference there were exhibition stalls installed and run simultaneously by diverse players in the sector that deal with cancer. It was an opportunity for the KESHO conference delegates to interact with the various service providers and network for more meaningful collaborations.

CANCER CONCERT

The conference culminated in the end with a star studded Cancer Concert also organized by the Texas Cancer Centre. It brought good publicity of the conference in relatable manner to the general public drawing celebrity performing artists from across Africa.

The location was also high profile and renowned for attracting middle and high income footprint of revelers.

The aim of the concert was to create cancer awareness as well as entertainment and also generate funds that would be used for cancer awareness programmes.
CLOSING REMARKS

KESHO chairperson took the opportunity to express appreciation to all the delegates, partners and service providers who made the day a success. She expressed that it had been an arduous journey where the organizing committee had been meeting every two weeks since January 2018 and having successfully put together the conference.

A special tribute was also extended to the Ministry of Health, the CEO of National Cancer Institute Dr. Alfred Karagu, Director of National Cancer Control Program at the Ministry of Health, Dr. Anne Ng’ang’a and all members of the organizing committee as well as members of the secretariat for a good job.

Also appreciated were the international guest speakers who travelled from far to share their insights. Also acknowledged was Africa Organization for Research and Training in Cancer and the presence of Dr. Bernard Olekuye and also the vice president of East Africa. Gratitude was also extended to the sponsors. She further thanked all the 80 speakers from within and outside the country for bringing their teams and sharing their data and demonstrating that there are strides being made and so much going on to address the cancer burden and sought to encourage all to collaborate with each other. Speakers were requested to leave their presentations for sharing with the larger group. IT teams at the conference were also acknowledged for their efforts.

In conclusion, she pointed that a lot was shared and what was important was putting what was learnt into practice for it all to make sense. She reinstated that there was need for all players to function in a coordinated manner for greater impact.

OVERALL WORKSHOP EVALUATION

The objective of the evaluation was to identify strengths and weaknesses of the conference and to assess its immediate outcomes in order to improve planning and delivery of future similar conferences. Results of the evaluation will be used by the organizers of the next KESHO Conference on, which will be held in 2020, and by the various committees during the planning and programme-building phases. The evaluation is also expected to be used as an accountability tool by all conference participants, online followers, donors, sponsors and other stakeholders to get a consolidated overview of what happened at KESHO 5th International Cancer Conference.

The leading data collection instrument was an end of conference hardcopy print survey issued to all present individually registered delegates, at the end of the conference. In addition to the delegate survey, individual interviews with delegates and focus group discussions with conference sponsors and partners were conducted both during and after the conference. The outcome of which is shared below. The evaluation demonstrated that the KESHO programme was overall highly rated and was successful in achieving the conference objectives and in providing new insights into treatment, prevention and clinical care that can lead to new research directions. Majority (49%) of the participants rated the workshop as being very good and (43%) rating it as being excellent with a handful finding it good and fair. They were also pleased with the facilitation as conducted by the facilitators and from the personal reviews expressed eagerness to have more sessions such as this with more days to allow for more plenary on pertinent issues and information sharing on best practices and lessons learnt. Ratings on other areas are as under:
### Evaluation of the Conference Organization

<table>
<thead>
<tr>
<th>Question</th>
<th>Excellent %</th>
<th>Very Good %</th>
<th>Good %</th>
<th>Fair %</th>
<th>Poor %</th>
<th>No Answer %</th>
</tr>
</thead>
<tbody>
<tr>
<td>How would you rate the overall organisation of the KESHO 2018 International Cancer Conference</td>
<td>43</td>
<td>49</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>How well was the conference structured</td>
<td>30</td>
<td>49</td>
<td>17</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>How would you rate the registration procedures?</td>
<td>23</td>
<td>36</td>
<td>32</td>
<td>6</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>In your opinion, how well did the conference meet its objectives?</td>
<td>19</td>
<td>40</td>
<td>36</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>How would you rate the keynote presentation</td>
<td>28</td>
<td>45</td>
<td>17</td>
<td>6</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

![Bar chart showing evaluations of conference aspects](chart.png)

- **rate overall**: Excellent, Very Good, Good, Fair, Poor, No Answer
- **conference structure**: Excellent, Very Good, Good, Fair, Poor, No Answer
- **registration process**: Excellent, Very Good, Good, Fair, Poor, No Answer
- **objective met**: Excellent, Very Good, Good, Fair, Poor, No Answer
- **keynote presentation**: Excellent, Very Good, Good, Fair, Poor, No Answer
Assessment of content quality and facility service

<table>
<thead>
<tr>
<th>Question</th>
<th>Excellent</th>
<th>Very Good</th>
<th>Fair</th>
<th>Fair</th>
<th>Poor</th>
<th>No Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance/Practicability of information</td>
<td>36%</td>
<td>34%</td>
<td>17%</td>
<td>0%</td>
<td>0%</td>
<td>13%</td>
</tr>
<tr>
<td>Variety of Breakout Topics</td>
<td>40%</td>
<td>36%</td>
<td>17%</td>
<td>0%</td>
<td>0%</td>
<td>6%</td>
</tr>
<tr>
<td>Vendor Exhibits</td>
<td>21%</td>
<td>36%</td>
<td>26%</td>
<td>4%</td>
<td>0%</td>
<td>13%</td>
</tr>
<tr>
<td>Quality of speakers/presenters</td>
<td>49%</td>
<td>26%</td>
<td>17%</td>
<td>2%</td>
<td>0%</td>
<td>6%</td>
</tr>
<tr>
<td>Venue Facilities</td>
<td>43%</td>
<td>34%</td>
<td>11%</td>
<td>2%</td>
<td>0%</td>
<td>11%</td>
</tr>
<tr>
<td>Audio/Visual equipment</td>
<td>34%</td>
<td>34%</td>
<td>26%</td>
<td>2%</td>
<td>0%</td>
<td>4%</td>
</tr>
<tr>
<td>Food Beverages</td>
<td>38%</td>
<td>36%</td>
<td>17%</td>
<td>2%</td>
<td>0%</td>
<td>6%</td>
</tr>
</tbody>
</table>

*Graph showing the assessment of various aspects of the conference.*

*First Draft KESHO – 5th KENYA INTERNATIONAL CANCER CONFERENCE Detailed Report 42*
Distribution of participants to workshop tracks

<table>
<thead>
<tr>
<th>Please indicate which workshop(s) or Track(s) you attended</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research training and scientific writing</td>
<td>26</td>
</tr>
<tr>
<td>Palliative and supportive care</td>
<td>38</td>
</tr>
<tr>
<td>Clinical Care - Current Research focused</td>
<td>43</td>
</tr>
<tr>
<td>Diagnostics</td>
<td>4</td>
</tr>
<tr>
<td>KESHO/ASCO Joint session</td>
<td>2</td>
</tr>
<tr>
<td>Biomarkers</td>
<td>0</td>
</tr>
<tr>
<td>Hematological malignancies in adults and children</td>
<td>2</td>
</tr>
<tr>
<td>Pathology and Radiology</td>
<td>2</td>
</tr>
</tbody>
</table>

Distribution of participants to Breakout sessions

Did the conference cover material that will be useful in your work?

<table>
<thead>
<tr>
<th>Response</th>
<th>% respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>87</td>
</tr>
<tr>
<td>No</td>
<td>4</td>
</tr>
<tr>
<td>No response</td>
<td>9</td>
</tr>
</tbody>
</table>
What part of the conference was most valuable to you? In order of most cited to the least

1. Breakout sessions
2. Palliative supportive care
3. Communication with cancer patients
4. Prostate cancer track
5. Research & Scientific writing
6. Networking
7. Discussions
8. Sexuality
9. All others (individually)

Most Valuable session of the Conference

Breakout sessions
Palliative supportive care
Communication with cancer patients
Prostate cancer track
Research & Scientific writing
Networking
Discussions
Sexuality
All others (individually)

Would you attend the KESHO 6th International Cancer Conference in 2020?

<table>
<thead>
<tr>
<th>Response</th>
<th>% respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>89</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>No response</td>
<td>11</td>
</tr>
</tbody>
</table>

Would Attend the KESHO 6th International Cancer Conference in 2020

% respondents

Yes
No
No response
What breakout topics would you like to see in 2020?

### Mentioned by more than one respondent in order of priority
- Paediatric Oncology
- Hematological malignancies
- Care discussions on metastatic breast cancer, prostate cancer & colon cancer

### Mentioned at least once
- Pain Management in paediatric
- The burden of AML and other malignancies
- Multi-disciplinary experience
- Palliative care always has gray areas
- Policy
- Safe handling of chemotherapy drugs
- Challenges faced by parents whose children are diagnosed with cancer at young age
- Role of Health promotion in prevention of cancer
- How to address risk factors to cancer
- Gynaecology
- Surgical Oncology
- Health Services/policies
- More about radiotherapy
- Communication in children palliative care
- Communication
- Palliative care amongst teenagers
- Complimentary therapies
- Health reforms in the context of cancer care especially on insurance cover
- More of sexuality in patients with cancer
- How to prevent or avoid the cancers that can be avoided
- Nutrition and CA Rx advance planning, pain control, psychosocial aspects in palliative
- More leukemia/lymphoma
- Malignant Melanoma
- Kaposi’s Eczema
- Gynaecolor for malifrucem (cervical cancer)
- Immuno-therapy
- Viral cytoriduction
- Role of Gere therapy
- Recent advances in radiotherapy
- Childhood cancers
- P2riein tumour theurin
- Advanced treatment options
- Genomics and precision oncology
- Liquid Biopsies as Biomarkers
- Big Data. machine learning and AI in cancer management
- Data Analytics
- Compatibility study in cancer
- Latest advances in cancer care in Kenya
- Local Cancer management cases and strategies
- Biostatistics of Research methods
- Research Training and scientific writing
- Palliative and supportive care

### Additional Comments (in order of priority):
1. Well prepared and organized conference
2. Very good & educative conference
3. Excellent Conference
4. Job well done
5. I hope we will practice what we have learned in our clinical areas
6. KESHO should take the lead in advisory in quality care, training and research. If should also have advocacy arm. If should lead in expert guidelines. Just mirror. What ASCO/ESMO/ESTRO/ASTRO's doing
7. Venue should fix the water flushing problem for the washrooms and adjust the piping to suit large group conference facilities. The issue is very slow/to no filling up of the cistern on 1st user flushing.
8. Childhood cancer largely left out
9. The conference was very informative with relevant topics that address current medical issues and patient management.
KESHO/ASCO JOINT SESSION EVALUATION

Suggestions of topics requested for joint sessions in future

1. Radiation therapy
2. Include other MDT dilemmas and input
3. Earlier preparation of slides and correction to ASCO team
4. Lymphomas
5. Leukemia - AML - Where we are in terms of remission rates, projections of availability affordability of molecular, cytogemics tests
6. Availability of transplant centre
7. Multiple Myeloma - Patients are suffering from my experience, mortality is high
8. Experiences of hematological malignancy managements by experienced Dr. Gatura
9. Benign haematoiologist
10. Paediatric oncology
11. Hematologic malignanses
12. It would be nice to have case presentations in which there is no metastatic disease and involve a true multi-disciplinary team of disenssants
13. Prostate Cancer
14. Ground dissemination
15. Source of disenssants did not tailor their dissemination to cases
16. Genomics
17. Cancer Bio-informatics
18. Machine learning & AI
19. Automated processes for early detection

Did KESHO/ASCO Joint session meet objective

Participants assessment of the KESHO/ASCO Joint Session
Partners & Sponsors Post Conference Evaluation

As is standard practice for KESHO, the partners and sponsors to the conference were convened to a post conference evaluation breakfast meeting at Sarova Panafric Hotel in Nairobi-Kenya, in order to both appreciate their support as well as get feedback on how to further enrich the future conferences. The session was concluded with certificate issuance to the partners and sponsors appreciating and recognizing their efforts and support towards seeing the conference. The session was well attended by representatives from 12 organizations out of 27 who supported the conference.

It was noteworthy that there were a high number of sponsored delegates that boosted the event. Sponsorship offered for support had 8 categories. Namely: Platinum sponsor, Gold sponsor, Silver sponsor, Lunch sponsor, Sponsor to a Speaker, Conference Dinner sponsor, Welcome cocktail sponsor and other sponsorship opportunities that entailed conference break-out, conference bag, Advertisement in the conference book, conference lanyard, Conference bag inserts, Conference Videography and Photography and Web ad on KESHO website.

Overview of the Sponsors and Partners

The profile of sponsors and partners ranged from pharmaceutical companies, clinical, laboratories, medical manufacturers and oncological clinics. The Gold sponsors were Texas cancer center; Silver sponsors – Norvatis, AMRING and Takeda and sponsor to the conference bag was Nairobi Radiotherapy & Cancer center. The breakout sessions were supported by Janssen Oncology and AstraZeneca. Roche and RTI offered unrestricted monetary support with no specific line item linked to the support and the lanyards were supported by SUN Pharma.

Other support to the conference came from the exhibitors which included; Lancet, Bayer, Metropolis, Salama Pharmaceuticals, SANOFI, SUN Pharma, MERCK, ORIGENS Limited, F&S Scientific, Cipla, Eldoret oncology, Mercury Healthcare solutions, Apollo Hospitals, LABIOFAM, MSN, HETERO Mylan and Intas Pharmaceuticals Ltd., some of whom also brought in guest speakers.

Attendees profiled by region entailed; 230 local delegates 230; 10 regional delegates & 14 International delegates thereby attaining the set registration target by the KESHO secretariat and organizing committee. Appreciatively there was a high number of sponsored delegates by Norvatis, AMPATH, Nairobi Radiotherapy, NCCP and Texas Cancer Centre. Partnership with Ministry of Health yielded a lot including attendance of the Hon. Dr. Mohamed Kuti also the Chair of Council of Governors Health Committee.

Following feedback from the conference delegate there are plans to relook sponsorship packages to suit diverse partners who would like to come on board and enrich the knowledge sharing platforms. The KESHO chair expressed that earlier commitment by partners towards the conference would be much appreciated in future too for smoother and seamless transitions in planning and coordination of future KESHO events and activities and look forward to that to avoid late reminders and logistical adjustments. Also indicated that Abstract Review was affected by some late submissions that affected timely notification of presenters to prepare prior to sessions and timely inclusion in the conference programme especially instances where the program had to be updated on site.

Notably, there were other conferences within the same time as the KESHO conference and this may have affected commitment by attendees and brought sponsor’s inertia and fatigue in the sector. Another key concern was the need to harmonize delegates fees to reduce the number of packages for ease of management in the upcoming events to avoid confusion.
Sponsors were urged to continue with their support in view of the improvements and growth plans in the years ahead to make the planned activities and conference a success. It was emphasized that support from the partners and sponsors is very instrumental to make the conference and other KESHO activities a success.

Support is also required to strengthen the secretariat with the imminent growth of KESHO to ensure that its operations are not vested on a few who would be overwhelmed but to include more personnel whose roles can be more specific to attain the much needed efficiency. KESHO is also working towards a broader scope of the organization so that it increases partnership which is more diverse and is not only centralized to conference but working to see other related activities are engaged in and ensure a longer and sustainable partnership relationship.

The next conference will be in 2020 and the exact month is expected to be communicated once approved by the organizing committee after consultation with the partners.

**RECOMMENDATIONS FOR FUTURE KESHO EVENTS**

The partners and sponsors unanimously agreed that the 5th Kenya 2018 International Cancer Conference was a success. However, they made the following recommendations to enhance the outcomes and impacts of future similar conferences and activities, starting with KESHO 2020. The session was moderated by Mr. David Makumi.

**Registration fees**

- Make the registration fees more-friendly for nurses who would like to attend the sessions. Notably the conference content was very relevant to them and they do not want to miss out in future conferences
- Consider perhaps pitching economy of scale with vendors to ease the financial burden on potential delegates
- Can there be fees subsidy for sponsors/partners who have diverse contributions to the conference e.g. have complimentary registration/tickets for partners bringing in high profile speakers, contributing cash, or supporting conference activities, etc.

**Programme**

- Put efforts to finalize 2019 calendar early and aligned to partner strategic priorities while ensuring it covers the membership’s expressed needs and is communicated to the larger group ahead of time for planning
- Ensure the programme is set well in advance so that there are no last minute changes especially for the guest speakers travelling from far with tight itineraries and for those sponsoring the meetings
- Maintain a fast, early, quality and strict abstract selection process to ensure that only high-quality and relevant new scientific findings are presented at the conference.
- Make further efforts to ensure gender, age and regional diversity of speakers.
- Provide more opportunities for dialogue, debate and networking among sector professionals.
- Find and implement solutions to limit time conflicts between sessions addressing similar topics or fields of research.

**KESHO Activities**

- Look at expanding the KESHO scope to include cancer awareness across the country
- CME’s to be opened up to more diverse companies and not be confined to just a few companies as is often practiced by other platforms
- Reconsider changing conference month from February to another month since February is a busy month for doctors in Kenya with several other related activities which may upstage involvement with KESHO.
Poster exhibition
- Allocate more time to view the poster exhibition set up prior to event and avoid having clashes with the main programme and oral poster sessions.
- Review ahead of time and involve the sponsors and exhibitors participating in the set-up of the poster display area, make it more attractive for people to visit the poster area and go to the poster sessions.
- Create more time to enable interaction opportunities during poster viewing breaks and discussions.
- Innovate more on how to actually drive traffic to the exhibition stands given that in some instances where exhibition stands are well positioned, delegates may not have the motivation to visit or find value in visiting the exhibition stands e.g. lottery or raffles, or have high profile keynote speaker or guest who may also be a legislative policy maker have a session in the programme going round visiting the booths.
- Essential part of running the conference is to bring industry in and give them an opportunity to present their product or service. Appreciatively, the platform gives the partners a platform to network however, from a business perspective more thinking is required to explore how partners who support the conference can yield a return on their investment in the conference to encourage their continual support.
- Booth size versus the cost should be commensurate
- Consider having an innovative exhibition guest sign up tied to a reward to drive traffic to the stands and to encourage engagement with the exhibitors.

Conference venue, organization and staff
- Consider having innovative access to conference programme such as having a mobile application.
- Provide fast internet access throughout the conference venue.
- Have a good balance between paper-based materials and technology.
- Better evaluate the allocation of rooms based on their size to avoid having empty rooms while others are overcrowded.
- Ensure that volunteers are also knowledgeable about the directions outside the conference venue e.g. hotels, taxi’s and safety issues.

Information, communication and media
- Continue the good and regular communication and notifications of upcoming events and progress.
- Better inform potential delegates about the key differences between the KESHO Conference and other Conference to avoid misunderstanding and wrong expectations.
- Further continue to promote the social media pages through interesting social media handles e.g. as was done on youtube on https://www.youtube.com/watch?v=5K6Ab6Ick6s&feature=youtu.be&fbclid=IwAR2skeGFrJVVwWoPd5EuYGebVrSkPB4-HpyxcV9agf_46dCiyYOT85Ev3c4cSLIE and as was used on Facebook page and Twitter account dedicated to the conference #BusinessNews #KESHO #5thKenyaInternationalCancerConference.
- Provide more information on the conference host city and its transportation services, including maps.

Partner co-planned events
- KESHO to consider planning events on behalf of partners as experienced experts in successfully organizing various KESHO activities more as an interaction of exchange for support given to them and where partners may not have had an opportunity at the KESHO events to engage their target audience.
Advocacy

- Doctors need to speak up about price controls as that makes it easier for pharmaceutical companies to thrive especially with imported drugs which sometimes because of the brand have outrageous prices. Advocacy around this needs to be considered

Social events e.g. Dinner Invites

- We need to find a way to encourage attendance and avoid poor attendance and demoralization of the guest speakers to scheduled social and networking events in the programme

Generally, in order to maintain the high profile of the conference, KESHO should propel higher attendance to robust levels of attendance in a competitive environment. The organizers of the KESHO Conference will have to continue being innovative, avoid redundancy against other well-known Cancer related conferences, and strengthen existing mechanisms to select the best science, focusing on high-quality, new and promising scientific research.

SUGGESTIONS & OBSERVATIONS BY RAPPORTEUR

TOOLS & INFORMATION RESOURCES

KESHO seems to have over time developed numerous content and IEC materials as well as packaged information during its learning sessions from inception in tangible handbooks, resource packs and online resources.

Notably, one of the greatest resources yet relatively under-utilized is the KESHO web portal that should hosts all the resources and fact sheets that have ever been developed and linkages necessary to partners. It is the only public website for KESHO which can be a depository of a lot of resources in several languages with latest news and multi-media content.

The KESHO focal points during the workshop were exposed to the breadth of the resources available online and even had sessions with practical navigation within this electronic space to demonstrate its full utility. For joint breakout sessions there was a tease of the KESHO/ASCO session facilitation and training e-course which can be utilized as a built in forum structure with guided sessions that can be completed within hours. It is a complimentary service to the practical training sessions being conducted at the various country offices and even issue certificates where appropriate though only to those who score above an agreed grade e.g 80% having completed the entire course. It can be accessed in CD formats for station in remote locations and in a lower version with no animations for areas that have internet of low bandwidth.

A completed KESHO Service directory if also developed and shared with members and participants where appropriate can be useful in identifying resources with credible partners across the country, continent and even globally for shared learning and enrich practice opportunities. It can be a secure site not open for public consumption since the contact details of KESHO focal points are uploaded for country custom response but accessible to members. Due to the sensitivity of certain data shared editing of various components on the country links would be confined only to certain personnel that had administrator access status level. Hence the onus would be on KESHO focal points to ensure that their access levels are updated accordingly.
The monitoring and research tools show cased once enriched for local usage can be considered for various activities such as advocacy and featured several survey/research content that would be meaningful in fielding facts, statistics and figures.

The system was shown to be able to generate reports from linked global servers lessening time for information gathering around various search parameters. It even has the ability to generate time progressive reports. Many cancer control practitioners in the KESHO membership can make good use of the same in making presentations and getting baseline information on the region and country stations before they make their field visits creating higher level of preparedness in KESHO programme implementation.

The KESHO focal points are urged to be more proactive in sharing information on their country activities by uploading them on the e-workspace and forums that share information with the world. Use of the social media is also encouraged linking the country sites with the global links.

Notably, there were challenges cited on functionality, updated content and user friendliness of the online resources and through trouble shooting it was clear that there was more practice and interaction with the ICT portals needed by the KESHO focal points to gain proficiency in the same and to debug any problems encountered.
KESHO chair gave a forecast on the way forward and calendar of events till the next biennial conference scheduled to be in 2020 at the post conference evaluation breakfast session with partners and sponsors to the 5th KESHO international cancer conference.

It was noted that KESHO has previously focused mainly on education, continuous medical education and activities centred around the conference. However, following the conference feedback and intentional steps towards improving KESHO as well as towards broadening focus areas, KESHO is looking to include research as has been requested by many partners. It is expected that this will also broaden partnership. Also following partnership with the government Ministry of Health and sector regulators such as KENCO, there is the aspiration to improve impact with partners in advocacy and policy as well.

In 2019, the tentative education calendar is as follows but subject to subtle tweaks to ensure meaningful impact. Given that KESHO CME’s are often schedule every last Thursday of every month see below the proposed topics lined up for 2019 subject to further confirmation.

**PROPOSED TOPICS LINED UP FOR 2019**

The presentations of the monthly CME’s are expected to be enriched by having diverse perspectives of the planned subject area having in place in some sessions the presence of more than one speaker putting in different perspectives of the subject matter e.g. having a surgical perspective, chemo perspective and radio perspective. The half day and full day sessions will be broader considering that tackling the cancer burden is a multidisciplinary concern that brings together various players.

**QTR1**

1. January – Breast cancer
2. February - Commemoration of World Cancer Day and related activities including creating a platform for Ministry of Health to engage in elaborating on the completed Kenya Cancer Screening Guidelines
3. March - TBA

*Half day symposium in collaboration with HIV Clinicians Society focusing on HIV associated malignancies*

**QTR2**

1. April – Esophagus, Gastric and Colloratal cancer
2. May – Hematology with a focus on Treatment of leukemia
3. June – Pediatric malignancies

*Joint symposium in collaboration with Kenya Cardiac Society on cardiac oncology*

**QTR3**

1. July – pancreatic cancer
2. August - TBA
3. September – management of brain tumors

*Half day Symposium in collaboration with KENCO on palliative care*

**QTR4**

1. October – Surgical oncology
2. November – Endocrine tumors
3. December – TBA

*1st time hold a full day Bi-annual Haematology symposium covering benign and malignant haematology & aiming for regional representation*

There are multiple areas for partnership. There is also intent to take some of the educational activities/sessions outside of Nairobi to give strength to the program to the areas that have a large oncological traffic such as Eldoret, Mombasa, Kisumu and all emerging areas in the counties.
In terms of research, KESHO plans to form research groups across institutions in the region through which there can be joint grant applications. There are also a lot of data shared at the conference hence there are plans to improve the registry data and strengthen capacity in keeping of files and looking to launch a dialogue.

In Advocacy and policy, KESHO is looking to strengthen and continue pursuing partnership with other societies such as KENCO and KEHPCA to have a strong position in improvement of policy in key areas. KESHO mentors are already part of technical working groups in the existing groups such as NCI and NCCP.

Having successfully, completed the 5th International Cancer Conference KESHO is now positioning itself and looking to start planning earlier for the next conference putting in mind the lessons learnt and gains made so far. Having noted that there seems to be many activities in November, there are considerations to move the conference earlier in the year in February. This is pending approval in the KESHO planning committee and due to be communicated ahead of time to both delegates and partners for the sake of good order.

What was done different in 2018 there were panels that came up with topics and identified potential speakers who would come and speak to the local needs unlike before. It may be a radical change for some but intended for the larger good and efficacy in the region.
CONCLUSION

On the way forward
Emerging from the overall concerns raised during the sessions and subsequent presentations on possible solutions the following was noted moving forward

1. There is need to engage and update the specific country stakeholders, teams and management on cancer control management and treatment on the priorities and unique responsibility towards a sustainable solution.
2. There is a need to explore scientific approaches for resource sparing and how to increase affordability of better value cancer care while not compromising the outcome on patients.
3. Move to establish services of clinical oncology starting with the most difficult challenge.
4. There is need to debunk the thought that ‘there is no local resources’ in Africa and limited and medium income countries. As long as there is a well presented project with a good business model customized to the local conditions, funding is assured as has been demonstrated before in Diaspora remissions to sub-Saharan Africa and other local initiatives.
5. Embrace use of knowledge and informatics for better outcomes driven by citizens, information technology and knowledge e.g. Care through Tele-medicine, Tele-oncology, e-consultation, second opinion, remote treatment planning and quality assurance support; Education through online platforms with tutorials to complement workshops and Research through multi-centre clinical trials and even implementation research.
6. Open up to modern technology e.g. in robotic and artificial intelligence, nanotechnology, quantum computing.
7. Value driven approaches with best outcomes relative to cost e.g in chemotherapy care, decrease hospitalizations, use off label affordable drugs with scientific base for higher value, control drug utilization, have strategic use of generics, participate in drug trials and enhance personnel capacity through continuous training.
8. In scientific research consider decreasing the total time spent conducting clinical trials and enrich the scientific quality with more ethnic and perhaps genetic variability.
9. Consider use of immunotherapy for patients who may not be responding well to chemotherapy.
10. Collaborate with global experts for trials.
11. Work not only to lessen the burden on those who have cancer but also to potential deterioration of the socio-economic status of the dependents and future generation.
12. Participate in innovation summits driven by cancer experts.
13. Participate in multicenter clinical trials.

Additional comments from participants
1. Need to lobby for reduction in medication and comprehensive insurance for cancer patients.

Role of Research in Cancer Control
1. Fostering innovation across cancer care continuum to inform science.
2. Increasing skills and capacity.
3. Address local clinical and public health practice and be transferable.
4. Interaction between social determinants and health seeking outcomes.
5. Genomics, ethnicity, diet, pharmacodynamics / genetics.
7. Monitoring and evaluation of interventions.
8. Outcomes research.
9. Informs policy and implementation steps where appropriate.
APPENDIX 1. PARTNERS AND SPONSORS AT POST CONFERENCE EVALUATION MEETING

<table>
<thead>
<tr>
<th>NAME OF SPONSOR/PARTNER REPRESENTATIVE</th>
<th>ORGANIZATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Walter Wanjala</td>
<td>Armring</td>
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<tr>
<td>2. Jimmy Karanja</td>
<td>HENZO Kenya</td>
</tr>
<tr>
<td>3. Rogers Kimutai</td>
<td>HETERO Labs</td>
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<tr>
<td>4. Charles Otieno</td>
<td>HETERO Labs</td>
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<tr>
<td>5. Francis Mwangola</td>
<td>Kutiula Sofware Solutions</td>
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<tr>
<td>6. Wairimu Mbogo</td>
<td>Mercury Healthcare Solutions</td>
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<tr>
<td>7. Maureen Maina</td>
<td>Mercury Healthcare Solutions</td>
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<tr>
<td>8. Dr. Anne Ng’ang’a</td>
<td>MOH-NCCP</td>
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<tr>
<td>9. Bernard Korir</td>
<td>MSN Onco Care</td>
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<td>10. Tela Were</td>
<td>Mylan Labs Ltd.</td>
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<tr>
<td>11. Bernard Sirira</td>
<td>Norvartis</td>
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<td>12. Maureen Mwacanga</td>
<td>Norvartis</td>
</tr>
<tr>
<td>14. Cathy Otieno</td>
<td>Prodigy Health care</td>
</tr>
<tr>
<td>15. Lucy Mithu</td>
<td>SANOFI</td>
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</tbody>
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APPENDIX 2. ONLINE KESHO CONFERENCE RESOURCES

Conference program - https://kesho-kenya.org/index.php/programme
Conference Track summaries - https://kesho-kenya.org/index.php/component/k2/item/238
Conference Registration - https://kesho-kenya.org/index.php/component/chronoforms5/?chronoform=kesho_Reg
Conference presentations - https://kesho-kenya.org/index.php/presentations
KESHO membership registration - https://kesho-kenya.org/index.php/membership
Accredited link to Statutory Travel information - http://www.magicalkenya.com/visit-kenya/visa-information/