FACTS ABOUT OCEAN ROAD CANCER INSTITUTE

BUILDING CAPACITY FOR CANCER SERVICES IN TANZANIA

WORKING IN PARTNERSHIP WITH ALL STAKEHOLDERS TO FIGHT CANCER

January 2014
OCEAN ROAD CANCER INSTITUTE

Background
The Ocean Road Cancer Institute (ORCI) is located along the Indian Ocean about 200 meters from the beach. This health facility is one of the oldest health institutions in Tanzania having been founded in 1895 by the German colonial government. At its inception, the hospital catered for German community and after 1st World War the British Colonial government adopted a policy that concentrated on provision of medical services for the European communities.

After independence in 1961, all the barriers from the colonial past were removed and the hospital was re-named the Ocean Road Hospital, catering for all races and operated as a maternity wing of the Muhimbili Medical Centre. In 1980, a decision was made by the Ministry of Health to make Ocean Road Hospital the hub for cancer services, whereby the Radiotherapy Unit of the Faculty of Medicine, University of Dar es Salaam was shifted from Muhimbili Medical Centre to the Ocean Road Hospital to give room for expansion. During the period between 1980 to mid 1996, deliberate efforts were made to upgrade the Radiotherapy Unit to a comprehensive Cancer Institute. In June 1996, by an Act No. 2 of Parliament, Ocean Road Hospital was made an independent autonomous institute directly under the Ministry of Health and its name changed to Ocean Road Cancer Institute (ORCI).

The Chairman of the Board of Trustees and the Executive Director are appointed by the President of the united Republic of Tanzania. The institute has four directorates namely Medical Services, Cancer Prevention, Human Resource Management, Technical, and Planning. The main source of funding is from the Government of Tanzania. The institute also receives assistance from International organizations such as IAEA, WHO, IARC, UICC, INCTR, US NCI, Open Society, IAHPC, ICAP Columbia University, University of Copenhagen etc.

Vision statement
To become a centre with national, regional and international reputation for excellence in cancer control.

Mission statement
To provide equitable, accessible, affordable and high quality services for early detection and cancer care to the public through prevention, research, education and treatment using modern technology and dedicated staff.
Functions of ORCI includes:

(i) To control and manage the institute and assume responsibility for control and management of such hospitals or health facilities as may be vested in the institute by order published in the official gazette.

(ii) To provide medical care to inpatients and outpatients affected with cancer and other diseases in accordance to medical ethics.

(iii) To stimulate and promote programs of education on health and particularly on cancer.

(iv) To conduct training programs.

(v) To provide consultancy services.

(vi) To perform research activities with or without association with person or institutions inside or outside Tanzania.

(vii) To do any act for the purpose of achieving any of the above functions.

ORCI Strategic Objectives
The five years strategic objectives of ORCI for 2008/09 – 2012/13 are:

1. Transformation and strengthening of ORCI as National Cancer Institute
2. Improving cancer diagnosis and treatment
3. Reduce incidence of cancer by increasing cancer awareness initiatives to various communities in the country
4. Reduce incidence and mortality of cancer by installation of the most efficient and effective cancer screening and early detection programs in the country
5. Improving infrastructure for cancer management at the National Cancer Institute, ORCI
6. Improving quality of life for those living with, recovering from or dying from cancer by an effective palliative care program
7. Developing human resource capacity and management system for cancer control in Tanzania
8. Improving cancer research, registration, training, education and information dissemination in cancer management

ORCI Services
The institute provide inpatient and outpatient services including:

- Treatment with radiation (radiotherapy).
- Treatment with cytotoxic drugs (chemotherapy).
- Palliative care services (pain relief using oral morphine, counseling and spiritual services).
- Diagnostic imaging with X-rays, Ultrasound, Mammography and Nuclear medicine.
- General laboratory services.
- Histopathology services
- Cancer registration
- Cervical and breast cancer screening at ORCI
- Cervical and breast cancer screening outreach program in the regions
- Care and treatment clinic for HIV/AIDS patients.
- Teaching programs for Bsc Radiation Therapy Technology and Master of Medicine in Clinical Oncology
- Teaching undergraduate and postgraduate medical students as well as other health care workers.
- Research projects in various aspect of cancer.

It should be noted that Tanzania has a cost-sharing policy for health services but cancer patients are exempted from paying user fees.

**Burden of Cancer in Tanzania**

Tanzania has approximately 44.9 million people based on census data of 2012. In Tanzania, projection data indicate that each year there are 100 new patients in every 100,000 population. This translates that each year in Tanzania there are about 44,000 new cancer patients countrywide. At the moment, Tanzania has a single radiotherapy center, the Ocean Road Cancer Institute in Dar es Salaam although soon another centre will be opened at Bugando Medical Centre. Patient demand for cancer therapy in Tanzania far exceeds available services.

The number of new cancer cases attending ORCI has been increasing progressively as can be seen in the Table below. Cancer prevention and control programs are not well developed due to limited funding.

<table>
<thead>
<tr>
<th>Type of Cancer</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cervical cancer</td>
<td>955</td>
<td>1006</td>
<td>1288</td>
<td>1374</td>
<td>1510</td>
<td>1881</td>
<td>1896</td>
<td>1769</td>
</tr>
<tr>
<td>Kaposi sarcoma</td>
<td>295</td>
<td>404</td>
<td>418</td>
<td>447</td>
<td>681</td>
<td>814</td>
<td>789</td>
<td>721</td>
</tr>
</tbody>
</table>
**ORCI budget trend for the period 1996 – 2013**

The funds allocated for ORCI to run its activities for past 17 years have been falling short of the requested amount. The tables below show the trends in budget allocation for the past 17 years.

**BUDGET Vs ALLOCATION – OTHER CHARGES**

<table>
<thead>
<tr>
<th>Year</th>
<th>Budget Tshs (Million)</th>
<th>Allocation Tshs (Million)</th>
<th>%age of Allocation Vs Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996/1997</td>
<td>153</td>
<td>26</td>
<td>17%</td>
</tr>
<tr>
<td>1997/1998</td>
<td>356</td>
<td>64</td>
<td>18%</td>
</tr>
<tr>
<td>1998/1999</td>
<td>1,394</td>
<td>223</td>
<td>16%</td>
</tr>
<tr>
<td>1999/2000</td>
<td>732</td>
<td>161</td>
<td>22%</td>
</tr>
<tr>
<td>2000/2001</td>
<td>1,274</td>
<td>242</td>
<td>19%</td>
</tr>
<tr>
<td>2001/2002</td>
<td>1,560</td>
<td>312</td>
<td>20%</td>
</tr>
<tr>
<td>2002/2003</td>
<td>1,818</td>
<td>400</td>
<td>22%</td>
</tr>
<tr>
<td>2003/2004</td>
<td>2,913</td>
<td>466</td>
<td>16%</td>
</tr>
<tr>
<td>2004/2005</td>
<td>2,628</td>
<td>473</td>
<td>18%</td>
</tr>
<tr>
<td>2005/2006</td>
<td>2,252</td>
<td>500</td>
<td>22%</td>
</tr>
<tr>
<td>2006/2007</td>
<td>2,775</td>
<td>700</td>
<td>25%</td>
</tr>
<tr>
<td>2007/2008</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### BUDGET Vs ALLOCATION – DEVELOPMENT FUNDS

<table>
<thead>
<tr>
<th>Year</th>
<th>Budget Tshs (Million)</th>
<th>Allocation TShs (Million)</th>
<th>%age of Allocation Vs Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002/2003</td>
<td>900</td>
<td>622</td>
<td>69%</td>
</tr>
<tr>
<td>2003/2004</td>
<td></td>
<td>278</td>
<td></td>
</tr>
<tr>
<td>2004/2005</td>
<td></td>
<td>64</td>
<td>21%</td>
</tr>
<tr>
<td>2005/2006</td>
<td>560</td>
<td>1,000</td>
<td>179%</td>
</tr>
<tr>
<td>2006/2007</td>
<td>1,740</td>
<td>420</td>
<td>24%</td>
</tr>
<tr>
<td>2007/2008</td>
<td>2,025</td>
<td>350</td>
<td>17%</td>
</tr>
<tr>
<td>2008/2009</td>
<td>4,250</td>
<td>300</td>
<td>7%</td>
</tr>
<tr>
<td>2009/2010</td>
<td>4,880</td>
<td>2,601</td>
<td>53%</td>
</tr>
<tr>
<td>2010/2011</td>
<td>4,849</td>
<td>400</td>
<td>8%</td>
</tr>
<tr>
<td>2011/2012</td>
<td>12,194</td>
<td>2,500</td>
<td>21%</td>
</tr>
<tr>
<td>2012/2013</td>
<td>11,685</td>
<td>3,800</td>
<td>33%</td>
</tr>
</tbody>
</table>

### BUDGET Vs ALLOCATION – MEDICAL SUPPLIES

<table>
<thead>
<tr>
<th>Year</th>
<th>Budget Tshs (Million)</th>
<th>Allocation Ths (Million)</th>
<th>%age of Allocation Vs Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996/1997</td>
<td>170</td>
<td>39</td>
<td>23%</td>
</tr>
<tr>
<td>1997/1998</td>
<td>140</td>
<td>35</td>
<td>25%</td>
</tr>
<tr>
<td>1998/1999</td>
<td>464</td>
<td>65</td>
<td>14%</td>
</tr>
<tr>
<td>1999/2000</td>
<td>461</td>
<td>83</td>
<td>18%</td>
</tr>
<tr>
<td>2000/2001</td>
<td>228</td>
<td>57</td>
<td>25%</td>
</tr>
<tr>
<td>2001/2002</td>
<td>271</td>
<td>92</td>
<td>34%</td>
</tr>
<tr>
<td>2002/2003</td>
<td>289</td>
<td>133</td>
<td>46%</td>
</tr>
<tr>
<td>2003/2004</td>
<td>996</td>
<td>229</td>
<td>23%</td>
</tr>
<tr>
<td>2004/2005</td>
<td>700</td>
<td>189</td>
<td>27%</td>
</tr>
<tr>
<td>2005/2006</td>
<td>2,029</td>
<td>451</td>
<td>22%</td>
</tr>
<tr>
<td>2006/2007</td>
<td>1,551</td>
<td>625</td>
<td>40%</td>
</tr>
</tbody>
</table>
### Strength, weaknesses, opportunities and challenges of cancer management in Tanzania

#### Strength
- Presence of National Cancer Institute, the Ocean Road Cancer Institute with dedicated management team
- Existence of different cadres of health personnel i.e. nurses, oncologists, medical physicists, public health specialists, epidemiologists, biostatisticians, pathologist, laboratory technologists including members of teaching staff at MUHAS
- Presence of cancer care infrastructure such as medical laboratory, ultrasound facilities, X-ray facilities, Radio- and chemo- therapy facilities, nuclear medicine facilities, palliative care services, histopathology services, cervical and breast cancer screening facilities, Information Communication and Technology facilities
- Presence of new hospital building with 258 bed capacity catering for admitted cancer patients
- Presence of teaching sessions and academic seminars which provide continuing medical and research education for students and ORCI staff
- Availability of institutional cancer research funds
- Collaboration with local and international organizations
- Presence of hospital- as well as outreach- cancer control programs

#### Weaknesses
- Inadequate treatment facilities – currently there are only two cobalt-60 radiotherapy machines
- Financial support is not proportional to the problem of cancer in the country
- Low political commitment for cancer services
- Cancer is not a high priority in the national health agenda
- No cost sharing due to exemption of cancer patients
- No surgical oncology facilities
- Lack of comprehensive laboratory for molecular studies
- No Computerized Tomography (CT) facilities
• Limited institutional funding for cancer research
• Limited availability of cancer medicines
• Limited funding for cancer education and awareness programs
• Lack of financial support of newly established cervical cancer screening clinics in the regional hospitals

Opportunities

• Maximizing ORCI staff with experience and expertise in cancer care
• Sharing facilities with MUHAS and MNH
• Existence of National Cancer Control Strategy
• Existence of Non-Communicable Disease (NCD) focal person at MOHSW
• Collaboration with MNH and MUHAS on oncology training opportunities
• Existence of exchange program for training in nursing oncology
• Existence of collaboration with international organizations involved in cancer control such as IAEA, PACT, WHO, IARC, INCTR, ACS, UICC, USA NCI, IAHPC, DIANA MEMORIAL FUNDS, TANSANIA TUMOR HILFE, ICAP COLUMBIA UNIVERSITY
• Research funding from MTEF, DANIDA, AORTIC, UICC, INDIANA UNIVERSITY
• Existence of collaboration with local NGOs that support cancer control such as TTCF, MEWATA, TPCA, TPHA
• Expanding outreach cervical and breast cancer training program in the regions
• Expanding palliative care training program in the regions

Challenges

• Under funding
• Under funding
• Under funding
• Increasing number of cancer patients
• Late presentation of cancer patients

President of United Republic of Tanzania, H.E Dr Jakaya Kikwete with his guest the Former President of USA, HE Geoger W. Bush; when they visited ORCI in December 2012
**Recommendations**

The following are recommendations to address the challenges facing cancer services in Tanzania;

1. Government financial support in the implementation of ORCI Strategic Plan
   - Outreach services in the regions/districts for early detection/screening of cancer
   - Procurement of four (4) radiotherapy machines including Linear accelerator
   - Training program for oncologists, oncology nurses and radiotherapist

2. Implementation of vaccination program for prevention of cervical cancer in the country through HPV vaccine.

3. Scaling up of early detection and screening for Cervical, Breast and Prostate cancer in the country

4. Establishment of cancer treatment centers in other zones like Bugando Medical Centre, KCMC, Mbeya Referral Hospital etc.

5. Expansion of palliative care services in the country through provision of oral morphine.

6. ORCI is requesting Honorable Members of Parliament as well as the community in general for their support in fighting cancer in Tanzania.

7. ORCI is requesting part of the funds allocated for medical supplies to be disbursed to ORCI for procuring cancer medicines not available at MSD

8. ORCI is requesting the local Government (TAMISEMI) to allocate funds for cancer services in the regions and districts

9. All stakeholders to ensure cancer prevention and control efforts are given high priority in the country
External Radiotherapy machine, A Theratron Equinox Cobalt 60 machine

The new ORCI three storey hospital building with a 257 bed capacity

H.E. Jakaya Kikwete, President of United Republic of Tanzania looking at the newly donated Radiotherapy machine at Ocean Road Cancer
ORCI PARTNERS

International Agency for Research on Cancer
Centre International de Recherche sur le Cancer

INCTR

MDS Nordin

OPEN SOCIETY INSTITUTE & Soros Foundations Network

NATIONAL INSTITUTE FOR MEDICAL RESEARCH
NIMR Tanzania

global cancer control

C-Change Collaborating to Conquer Cancer

IAEA Programme of Action for Cancer Therapy PACT

American Cancer Society

ICAP Global Health, Action, COLUMBIA UNIVERSITY Mailman School of Public Health

IMA World Health

Ocean Road Cancer Institute
P.O. BOX 3592
Dar es Salaam
Telephone: +255-22-2127597
Fax: +255-22-2118704
Website: www.orci.or.tz