Overview

Non-communicable diseases (NCDs) such as Cancer and Heart Disease are on the raise and are threatening the health status of many Ugandans.

Globally one out of 100 children born annually have heart defects. In Uganda, 1.5 million children are born annually hence at least 15,000 have heart defects. Among those affected 7,500-8,000 children (50%), need immediate surgery, which if not done results into chronic illnesses, and eventual death. For adults, one out of four has high blood pressure, which usually results into heart disease. This is true for men and women in rural and urban locations. Heart diseases are more critical than HIV/AIDS at its highest prevalence of 18% in 1989. Therefore, the response needed to avert the problem has to be of a greater magnitude than that accorded to HIV/AIDS. The Uganda Heart Institute (UHI) has 28 heart/cardiac specialists against 20,000 patients annually and the doctor to patient ratio is 1:714.

On the other hand, cancer is now recognized globally as one of the leading non-communicable diseases. Second only to heart diseases, cancers contribute to over 7.9 million annual deaths (13% of total global mortality) and this figure is projected to rise to nearly 24 million by 2035. Over the years, the cancer burden has shifted to developing countries. In Uganda, with a population of about 35 million, there are only 25 oncologists and the demand for these experts for instance, at the Uganda Cancer Institute (UCI) is high due to the steady growth of the cancer cases in the population, with more than 65,000 new cases being registered annually.

Cancer and cardiac patients in Uganda are at higher risk of premature deaths mainly due to the lack of knowledge on the best practices of prevention, early detection programmes and access to essential, holistic and adequate treatment. For example, over 75% of cancers in Uganda are diagnosed in advanced stages and only 13% of people diagnosed with any cancer in Uganda survive. This policy brief discusses the status of the key components of service delivery at the two Institutions (UHI and UCI) and proposes recommendations.

Key Issues

- Limited awareness of good health practices and prevention. Majority of Ugandans do not carry out routine health checks. They only seek medical care when they are ill. This affects management of cancer and heart illnesses.

- Inadequate work space at the UHI and UCI is leading to floor cases that affect the quality of services.

- Annually only 650 of the 1,000 targeted heart operations are carried out of which two-thirds are children however, this does not cover the gap of 7,000 children who need surgery.

- UHI and UCI are understaffed at 62% and 54% respectively.

- Limited budgets for the institutes lead to stock outs of medical supplies. In addition, super specialists (cardiac surgeons, cardiologists, intensivists etc) are poorly remunerated posing a risk of brain drain.
Background
The Uganda Cancer Institute (UCI) and Uganda Heart Institute (UHI) are health institutes that offer cancer treatment, and cardiovascular treatment respectively, as well as research, and prevention of the diseases. The UHI and UCI were set up to serve as centres of excellence for the provision of comprehensive medical services to patients with cancers, heart/cardiovascular and thoracic diseases at an affordable cost.

About half of all cancers and cardiac diseases prevalent in Uganda can be avoided if current available knowledge on best practices is disseminated. These are: to avoid tobacco and alcohol use; exercise regularly, have a health check at least once a year; eating healthy foods with less fat, sugar and salt; and taking plenty of vegetables and fresh fruits among others. The adverse outcomes (death) mainly affect the poor and underprivileged groups such as children. Some of the common cardiovascular and cancer diseases are listed in table 1.

Table 1: Common heart and cancer disease annual rates in Uganda (2017)

<table>
<thead>
<tr>
<th>Common heart diseases</th>
<th>Common cancers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypertension 35.7%</td>
<td>Breast Cancer 8.2%</td>
</tr>
<tr>
<td>Dilated Cardiomyopathy 8.5%</td>
<td>Cervix 12.6%</td>
</tr>
<tr>
<td>Hypertensive Heart Disease 7.2%</td>
<td>Kaposi Sarcoma 8.7%</td>
</tr>
<tr>
<td>Rheumatic Heart Disease 5.7%</td>
<td>Oesophageal 5.8%</td>
</tr>
<tr>
<td>Diabetes Mellitus 1.8%</td>
<td>Prostrate 4.6%</td>
</tr>
<tr>
<td>Others 41%</td>
<td>Others/missing 59.9%</td>
</tr>
</tbody>
</table>

Source: UCI and UHI

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There is potential to address cancer and heart ailments in Uganda since the health professionals at the two institutes have expertise. The UHI and UCI can deliver effective services if human resource, work environment and supplies are in place. The state of affairs at both the specialised institutions as at end of March 2018 is discussed under the three categories vital for service delivery at the institutes.

1. Work Environment
This comprises of infrastructure, equipment, space for patient care; training; and research. It is within the mandate of UCI and UHI to offer specialized services however, the specialised institutes are facing challenges of inadequate infrastructure hence hard to achieve the three-fold mission.

Currently, the UCI maintains an in-patient facility with capacity of 210 beds (including floor cases). However, the facility needs an extra 320 beds to adequately cover the increasing numbers. Similarly, the UHI is working with a capacity of 20 beds and the occupancy rate is 150% (including floor cases). The institutes have a one bed operating theatre against the three needed for each.

The annual target for UHI is 1,000 surgeries however, due to lack of adequate work space; only 650 surgeries are carried out annually for both adults and children of whom two-thirds are children hence
leaving out a gap of other 7,000 children who critically need heart surgery.

The UCI faces a challenge of overcrowding (especially on the wards and verandas), inadequate parking space for the patients, difficulties in service and accessibility. Given the population growth and the resultant overcrowding, most of the existing facilities are insufficient hence the need for expansion.

At the Post-Operative Ward, on average 12 surgeries are always scheduled per week. However, only 4 surgeries are conducted due to lack of space and beds for the ward.

2. Medical Supplies
Medical supplies comprise of sundries, oxygen, laboratory reagents, drugs and medical stationery. The budget for medical supplies in FY 2017/18 and 2018/19 is Uganda Shillings (Ug shs) 7 billion against the required Ug shs 12 billion, hence inadequate to address the tremendous need for medicines for the ever-increasing numbers leading to drug stock outs. Since most patients come from upcountry, they take shelter at the already overcrowded institute as they wait for drug replenishments.

In the same breath, the UHI was allocated Ug shs 4 billion in FY 2017/18 and FY 2018/19, against the required Ug shs 28 billion for adequate medical supplies.

3. Human Resource
Currently the UCI has 25 oncologists and 68 nurses against the 65,000 patients annually. The doctor “oncologists” to patient ratio is currently 1:2,600. The UHI has 28 cardiac specialists against 20,000 patients annually and the doctor to patient ratio is 1:714. These rates are far below the World Health Organisation recommended standard of 1:500. The current staffing level at UCI is 147 positions filled (54%) against the requirement of 272 and at UHI the filled positions are 118 (62%) against the staffing requirement of 190, therefore a gap for specialists that should be filled.

4. Lack of awareness on best practices
About one in four adults have high blood pressure and 76% of them are not aware of their conditions, and are therefore not on treatment.

Similarly, there is low access to UCI and UHI services. For example, for every 100 suspected cancer cases, only 4% access care at UCI, while 96% do not.
On the other hand, out of the 15,000 babies born with heart defects, 2,500 (15.6%) access UHI for services. Hence the low rate of access to UCI and UHI is attributed to lack of knowledge about the respective diseases and partly to socio economic hindrances.

This calls for massive campaigns to raise awareness for risk factors; healthy living lifestyles; regular check-ups for early detection; treatment; emphasis to adopt best practices; and prevention of cancer and heart diseases.

**Conclusion**

There is potential to address cancer and heart ailments in Uganda if more effort is put in educating the public about prevention and early detection. On the other hand, service provision can be enhanced by tackling issues of personnel, work environment, and medical supplies.

**Recommendations**

i) The UCI and UHI should engage the Ministry of Information, Communications Technology and National Guidance (MoICT&NG) to conduct sensitization and awareness campaigns using the available opportunity of free Government allocated prime time on radio and television stations. Furthermore, the agencies should amplify the campaigns for regular check-ups for early detection and treatment as a best practice.

ii) The MoH and Ministry of Finance, Planning and Economic Development should increase funding to the UCI and UHI for infrastructure development; medical supplies and staff motivation to enhance service delivery.

iii) The Health Service Commission, UHI, UCI, and MoH should fast-track recruitment of the necessary human resource.

**References**

1. The Annual Health Sector Performance Report 2016/17
5. UCI Strategic and Development Plan 2017/18-2021/22.