**BURDEN OF CANCER**

**Total population (2019)**

18,628,749

**Total # cancer cases (2018)**

19,767

**Total # cancer deaths (2018)**

13,779

**Premature deaths from NCDs (2016)**

13,838

**Cancer as % of NCD premature deaths (2016)**

47.6%

**PAFs (population attributable fractions)**

8.6%  3.8%  49.8%  0.4%  41.8%  0.4%

- Tobacco (2017)
- Alcohol (2016)
- Infections (2012)
- Obesity (2012)
- UV (2012)
- Occupational risk (2017)

* PAF, cancer deaths

**Most common cancer cases (2018)**

<table>
<thead>
<tr>
<th>Cancers</th>
<th>Incidence</th>
<th>Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast</td>
<td>6.2%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Bladder</td>
<td>3.6%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Cervix uteri</td>
<td>21.1%</td>
<td>20.9%</td>
</tr>
<tr>
<td>Colorectum</td>
<td>0.8%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Kaposi sarcoma</td>
<td>20.5%</td>
<td>18.9%</td>
</tr>
<tr>
<td>Liver</td>
<td>0.8%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Melanoma of skin</td>
<td>3.3%</td>
<td>5.7%</td>
</tr>
<tr>
<td>Non-Hodgkin lymphoma</td>
<td>6.3%</td>
<td>6.7%</td>
</tr>
<tr>
<td>Oesophagus</td>
<td>9.3%</td>
<td>13.6%</td>
</tr>
<tr>
<td>Prostate</td>
<td>7.7%</td>
<td>2.6%</td>
</tr>
</tbody>
</table>

**TRENDS**

Estimated past and future trends in total cases per year (breast and lung)

<table>
<thead>
<tr>
<th>Year</th>
<th>Breast cancer 2012</th>
<th>Breast cancer 2018</th>
<th>Breast cancer 2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>762</td>
<td>1,216</td>
<td>2,016</td>
</tr>
<tr>
<td>2024</td>
<td>133</td>
<td>72</td>
<td>328</td>
</tr>
</tbody>
</table>

Probability of premature death from cancer per year

**INVESTMENT CASE (2019)**

*Low income*

At this income level, investing in a package of essential services and scaling-up coverage will:

**Costs per year**

<table>
<thead>
<tr>
<th>Year</th>
<th>Cost per capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>0.50</td>
</tr>
<tr>
<td>2022</td>
<td>1.00</td>
</tr>
<tr>
<td>2024</td>
<td>1.50</td>
</tr>
<tr>
<td>2026</td>
<td>2.00</td>
</tr>
<tr>
<td>2028</td>
<td>2.50</td>
</tr>
<tr>
<td>2030</td>
<td>3.00</td>
</tr>
</tbody>
</table>

**Projected lives saved per year**

<table>
<thead>
<tr>
<th>Year</th>
<th>Lives saved</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>200</td>
</tr>
<tr>
<td>2022</td>
<td>700</td>
</tr>
<tr>
<td>2024</td>
<td>1,200</td>
</tr>
<tr>
<td>2026</td>
<td>1,700</td>
</tr>
<tr>
<td>2028</td>
<td>2,200</td>
</tr>
<tr>
<td>2030</td>
<td>2,700</td>
</tr>
</tbody>
</table>
MALAWI

HEALTH SYSTEM CAPACITY

<table>
<thead>
<tr>
<th>Health System Capacity</th>
<th>2019</th>
<th>PBCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of mortality registration***</td>
<td>2007-2016</td>
<td>No coverage</td>
</tr>
<tr>
<td># of mammographs†</td>
<td>2020</td>
<td>2.5</td>
</tr>
<tr>
<td># of CT scanners*</td>
<td>2020</td>
<td>3.5</td>
</tr>
<tr>
<td># of MRI scanners*</td>
<td>2020</td>
<td>0.5</td>
</tr>
<tr>
<td># of PET or PET/CT scanners*</td>
<td>2020</td>
<td>0.0</td>
</tr>
</tbody>
</table>

WORFORCE

<table>
<thead>
<tr>
<th>Workforce</th>
<th>2019</th>
<th>n/a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available staff in Ministry of Health who dedicates significant proportion of their time to cancer</td>
<td>2019</td>
<td>yes</td>
</tr>
<tr>
<td># of radiation oncologist*</td>
<td>2019</td>
<td>n/a</td>
</tr>
<tr>
<td># of medical physicist*</td>
<td>2019</td>
<td>n/a</td>
</tr>
<tr>
<td># of surgeons*</td>
<td>2014</td>
<td>30.9</td>
</tr>
<tr>
<td># of radiologist*</td>
<td>2019</td>
<td>1.0</td>
</tr>
<tr>
<td># of nuclear medicine physician*</td>
<td>2019</td>
<td>0.0</td>
</tr>
<tr>
<td># of medical &amp; pathology lab scientists*</td>
<td>2016</td>
<td>n/a</td>
</tr>
</tbody>
</table>

FORMULATING RESPONSE

<table>
<thead>
<tr>
<th>Formulating Response</th>
<th>2019</th>
<th>n/a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated NCD plan</td>
<td>2019</td>
<td>n/a</td>
</tr>
<tr>
<td>NCCP (including cancer types)</td>
<td>2019</td>
<td>under development</td>
</tr>
<tr>
<td>MPower measures fully implemented and achieved</td>
<td>2018</td>
<td>0</td>
</tr>
<tr>
<td>Cancer management guidelines</td>
<td>2019</td>
<td>yes</td>
</tr>
<tr>
<td>Palliative care included in their operational, integrated NCD plan</td>
<td>2019</td>
<td>n/a</td>
</tr>
<tr>
<td># of treatment services (surgery, radiotherapy, chemotherapy)</td>
<td>2019</td>
<td>0</td>
</tr>
<tr>
<td>Breast cancer screening program</td>
<td>2019</td>
<td>no</td>
</tr>
<tr>
<td>Breast cancer screening program: Starting age, target population</td>
<td>2019</td>
<td>n/a</td>
</tr>
</tbody>
</table>

GLOBAL INITIATIVES

<table>
<thead>
<tr>
<th>Global Initiative</th>
<th>2018</th>
<th>n/a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elimination of Cervical Cancer</td>
<td>2018</td>
<td>n/a</td>
</tr>
<tr>
<td>HPV vaccination programme coverage</td>
<td>2019</td>
<td>yes</td>
</tr>
<tr>
<td>Cervical cancer screening</td>
<td>2019</td>
<td>organised</td>
</tr>
<tr>
<td>Screening programme method</td>
<td>2019</td>
<td>visual inspection</td>
</tr>
<tr>
<td>Screening participation rates</td>
<td>2019</td>
<td>10%-50%</td>
</tr>
<tr>
<td>Early detection programme/guidelines</td>
<td>2019</td>
<td>yes</td>
</tr>
</tbody>
</table>

Global Initiative for Childhood Cancer

<table>
<thead>
<tr>
<th>Global Initiative</th>
<th>2020</th>
<th>1108</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual cancer cases (0-14 years old)</td>
<td>2020</td>
<td>1108</td>
</tr>
<tr>
<td>Early detection programme/guidelines</td>
<td>2019</td>
<td>no</td>
</tr>
<tr>
<td>Defined referral system</td>
<td>2019</td>
<td>no</td>
</tr>
</tbody>
</table>

| Annual cancer cases (0-14 years old) | 2019 | 1108 |
| Acute lymphoid leukaemia | 47 |
| Hodgkin lymphoma | 62 |
| Burkitt lymphoma | 33 |
| CNS, low grade tumours | 42 |
| Retinoblastoma | 78 |
| Wilms tumour | 140 |
| Other childhood cancer | 706 |

***The mortality estimates for this country have a high degree of uncertainty because they are not based on any national NCD mortality data