**BURDENA OF CANCER**

<table>
<thead>
<tr>
<th>Total population (2019)</th>
<th>69,625,581</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total # cancer cases (2018)</td>
<td>170,495</td>
</tr>
<tr>
<td>Total # cancer deaths (2018)</td>
<td>114,199</td>
</tr>
</tbody>
</table>

**Premature deaths from NCDs (2016)**

<table>
<thead>
<tr>
<th>Non-Hodgkin lymphoma</th>
<th>3.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liver</td>
<td>14.1%</td>
</tr>
<tr>
<td>Lung</td>
<td>18.7%</td>
</tr>
<tr>
<td>Melanoma</td>
<td>2.7%</td>
</tr>
<tr>
<td>Prostate</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

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

36.1%

**PAFs (population attributable fractions)**

<table>
<thead>
<tr>
<th>Tobacco (2017)*</th>
<th>23.4%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol (2016)†</td>
<td>8.4%</td>
</tr>
<tr>
<td>Infections (2012)‡</td>
<td>23.6%</td>
</tr>
<tr>
<td>Obesity (2012)§</td>
<td>2.0%</td>
</tr>
<tr>
<td>UV (2012)¶</td>
<td>0.0%</td>
</tr>
<tr>
<td>Occupational risk (2017)¶</td>
<td>2.4%</td>
</tr>
</tbody>
</table>

| *PAF, cancer deaths | †PAF, cancer cases | ‡PAF, melanoma cases |

**TRENDS**

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

- **Breast cancer**
  - 2012: 13,653
  - 2018: 19,510
  - 2040: 23,336

- **Lung cancer**
  - 2012: 19,505
  - 2018: 23,957
  - 2040: 43,014

**Probability of premature death from cancer per year**

- **Breast cancer**
  - 2012: 8.80%
  - 2018: 7.17%
  - 2040: 5.93%

**INVESTMENT CASE (2019)**

- **Upper middle income**

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

**Costs per year**

**Projected lives saved per year**
HEALTH SYSTEM CAPACITY

Availability of population-based cancer registry (PBCR)**
- **per 10,000 cancer patients**
- 2019: High quality PBCR

Quality of mortality registration***
- 2007-2016: Low

# of external beam radiotherapy (photon, electron)*
- 2019: 5.9

# of mammographs*
- 2020: 12.6

# of CT scanners*
- 2020: 24.1

# of MRI scanners*
- 2020: 3.7

# of PET or PET/CT scanners*
- 2020: 0.6

WORKFORCE

- **per 10,000 cancer patients**
- Available staff in Ministry of Health who dedicates significant proportion of their time to cancer
- # of radiation oncologist*
  - 2019: 4.2
- # of medical oncologist*
  - 2019: 8.8
- # of surgeons*
  - 2014: 251.3
- # of radiologist*
  - 2019: 80.9
- # of nuclear medicine physician*
  - 2019: 3.0
- # of medical & pathology lab scientists*
  - 2016: n/a

FORMULATING RESPONSE

Integrated NCD plan
- 2019: operational

NCCP (including cancer types)
- 2019: operational

MPOWER measures fully implemented and achieved
- 2018: 3

Cancer management guidelines
- 2019: yes

Palliative care included in their operational, integrated NCD plan
- 2019: yes

# of treatment services (surgery, radiotherapy, chemotherapy)
- 2019: 3

Breast cancer screening program
- 2019: yes

Breast cancer screening program: Starting age, target population
- 2019: 30

# Public cancer centres per 10,000 cancer patients
- 2019: 3.6

Early detection programme/guidelines for 4 cancers (breast, cervix, colon, childhood)
- 2019: 3 cancer(s)

Pathology services
- 2019: generally available

Bone marrow transplantation capacity
- 2019: generally not available

Palliative care availability: community/home-based care
- 2019: generally available

Availability of opioids* for pain management
- 2015-2017: 143

GLOBAL INITIATIVES

Elimination of Cervical Cancer

HPV vaccination programme coverage
- 2018: 0

Cervical cancer screening
- 2019: yes

Screening programme type
- 2019: organised

Screening programme method
- 2019: PAP smear

Screening participation rates
- 2019: >50% and <70%

Early detection programme/guidelines
- 2019: yes

Defined referral system
- 2019: yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)
- 2020: 1233

Early detection programme/guidelines
- 2019: no

Defined referral system
- 2019: no

Annual cancer cases (0-14 years old)

- Acute lymphoid leukaemia
- Hodgkin lymphoma
- Burkitt lymphoma
- CNS, low grade tumours
- Retinoblastoma
- Wilms tumour
- Other childhood cancer

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