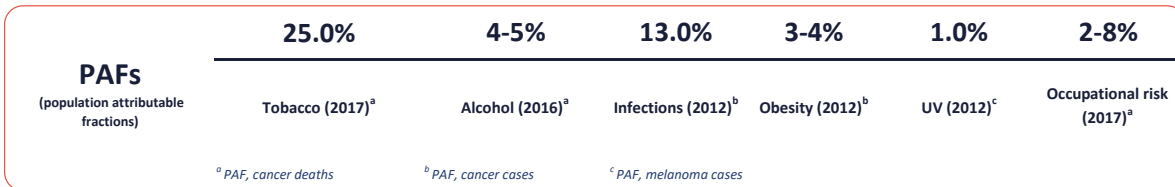
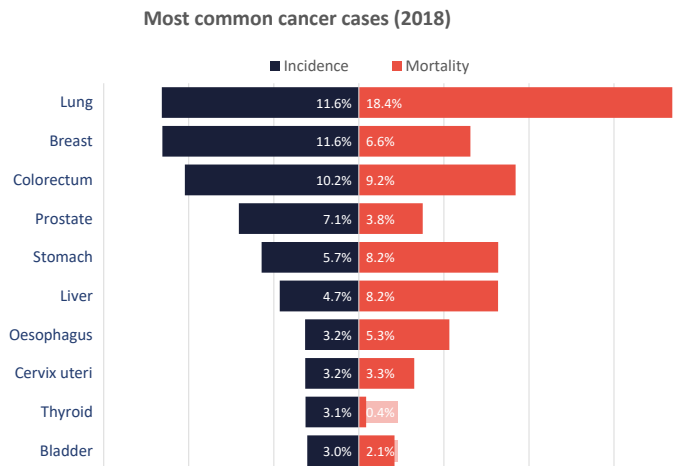
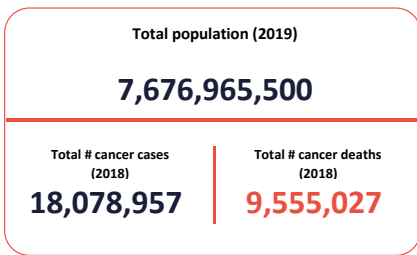


# GLOBAL

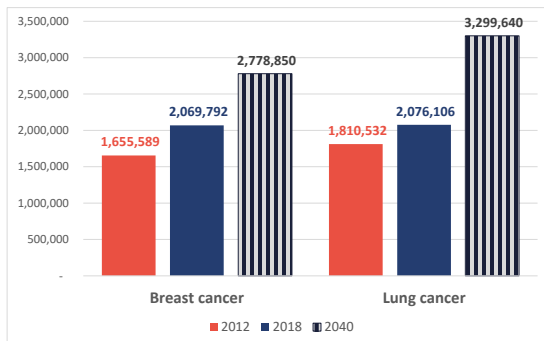
Cancer Country Profile 2020

## BURDEN OF CANCER

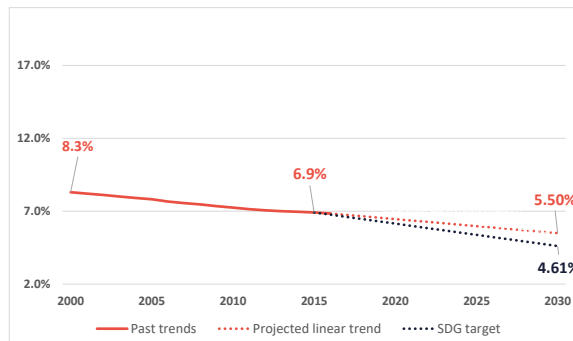


## TRENDS

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



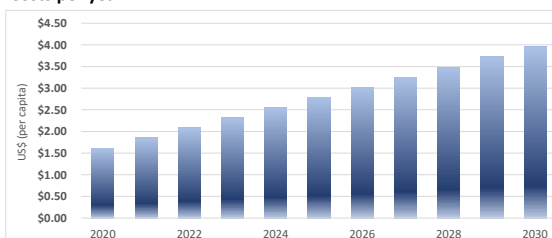
Probability of premature death from cancer per year



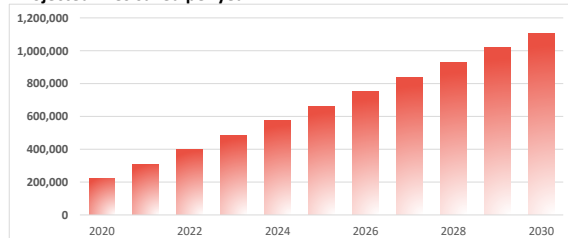
## INVESTMENT CASE (2019)

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	35% of countries have high-quality PBCR
Quality of mortality registration***	2007-2016	25% of countries have high quality coverage
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	6.5 (median), 0-23.8 (range)
# of mammographs <sup>a</sup>	2020	24.5 (median), 0-429.5 (range)
# of CT scanners <sup>a</sup>	2020	30.3 (median), 0-422.8 (range)
# of MRI scanners <sup>a</sup>	2020	14.8 (median), 0-373.9 (range)
# of PET or PET/CT scanners <sup>a</sup>	2020	0.7 (median), 0-30.7 (range)

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	81% of countries have MoH staff with dedicated time for cancer
# of radiation oncologist <sup>a</sup>	2019	14 (median), 0-180 (range)
# of medical physicist <sup>a</sup>	2019	12 (median), 0-286 (range)
# of surgeons <sup>a</sup>	2019	319 (median), 11-2854 (range)
# of radiologist <sup>a</sup>	2019	128 (median), 0-1502 (range)
# of nuclear medicine physician <sup>a</sup>	2019	6 (median), 0-140 (range)
# of medical & pathology lab scientists <sup>a</sup>	2019	393 (median), 3-4000 (range)

### FORMULATING RESPONSE

Integrated NCD plan	2019	74% of countries have operational integrated NCD plans	# Public cancer centres per 10,000 cancer patients	2019	2 (median), 0-700 (range)
NCCP (including cancer types)	2019	56% of countries have operational cancer plan	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	16% of countries have all 4 cancer early detection programme/guidelines
MPOWER measures fully implemented and achieved	2018	1 (median), 0-5 (range)	Pathology services	2019	81% of countries have generally available pathology services
Cancer management guidelines	2019	70% of countries have cancer guideline	Bone marrow transplantation capacity	2019	31% of countries have generally available BMT
Palliative care plan	2019	48% of countries have operational NCD integrated plan that includes palliative care	Palliative care availability: community/home-based care	2019	40% of countries have generally available palliative care
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	60% of the countries, worldwide, have generally available treatment capacity	Availability of opioids* for pain management	2015-2017	69 (median), 0-32,394 (range)
Breast cancer screening program	2019	62% of countries have breast cancer screening programme			
Breast cancer screening program: Starting age, target population	2019	43% of countries adhere to best practice			

\*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

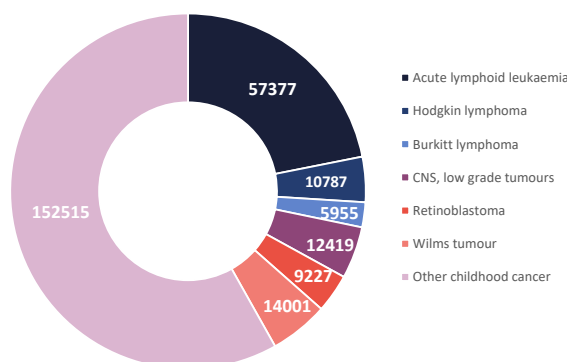
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	23% of countries have ≥ 50% coverage; 3% have ≥ 90% coverage
Cervical cancer screening	2019	65% of countries have cervical cancer screening programme
Screening programme type	2019	40% of countries have organized, population-based programme
Screening programme method	2019	7% of countries use HPV test as their screening programme method
Screening participation rates	2019	12% of countries have >70% coverage
Early detection programme/guidelines	2019	62% of countries have early detection programme/guidelines
Defined referral system	2019	69% of countries have defined referral system

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	262,281
Early detection programme/guidelines	2019	20% of countries have early detection programme/guidelines
Defined referral system	2019	33% of countries have childhood cancer defined referral system

Annual cancer cases (0-14 years old)



# AFGHANISTAN

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**38,041,757**

Total # cancer cases (2018)

**19,450**

Total # cancer deaths (2018)

**14,746**

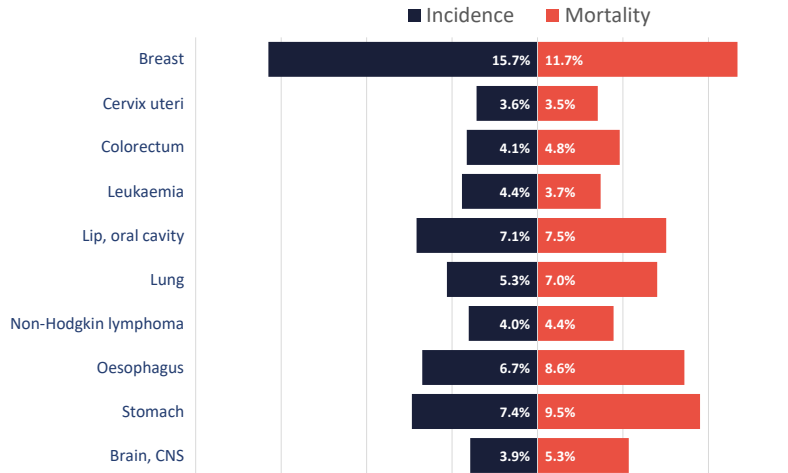
Premature deaths from NCDs (2016)

**53,425**

Cancer as % of NCD premature deaths (2016)

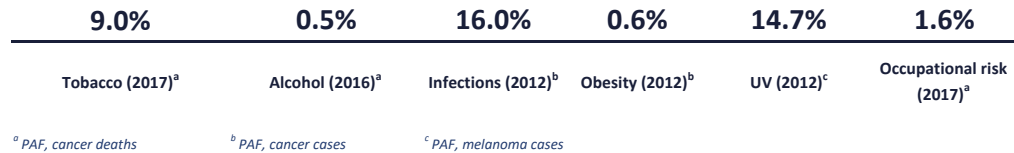
**23.6%**

### Most common cancer cases (2018)



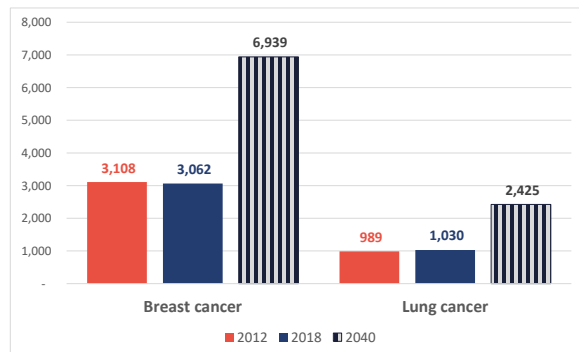
### PAFs

(population attributable fractions)

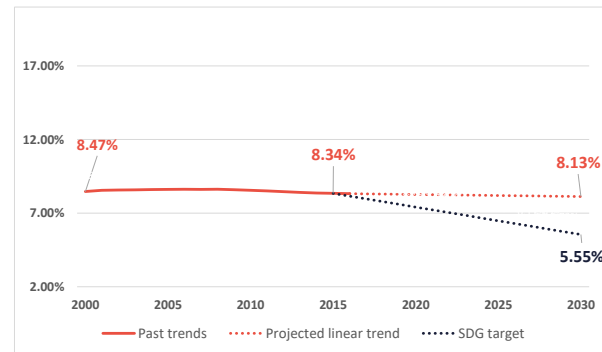


## TRENDS

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



### Probability of premature death from cancer per year

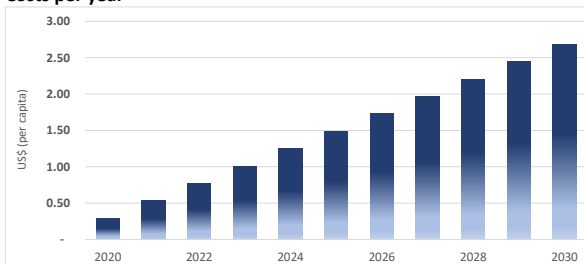


## INVESTMENT CASE (2019)

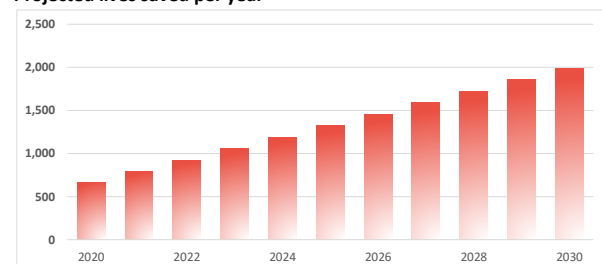
*\*Low income*

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

### Costs per year



### Projected lives saved per year



# AFGHANISTAN

Cancer Country Profile 2020

## HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR	<b>WORKFORCE</b>		
Quality of mortality registration***	2007-2016	No coverage	<sup>a</sup> per 10,000 cancer patients Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	0.0	# of radiation oncologist <sup>a</sup>	2019	n/a
# of mammographs <sup>a</sup>	2020	1.0	# of medical physicist <sup>a</sup>	2019	n/a
# of CT scanners <sup>a</sup>	2020	3.6	# of surgeons <sup>a</sup>	n/a	n/a
# of MRI scanners <sup>a</sup>	2020	1.5	# of radiologist <sup>a</sup>	2019	n/a
# of PET or PET/CT scanners <sup>a</sup>	2020	0.0	# of nuclear medicine physician <sup>a</sup>	2019	n/a
			# of medical & pathology lab scientists <sup>a</sup>	n/a	n/a

## FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	0.5
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally not available
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	3
Breast cancer screening program	2019	no			
Breast cancer screening program: Starting age, target population	2019	n/a			

\*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day

## GLOBAL INITIATIVES

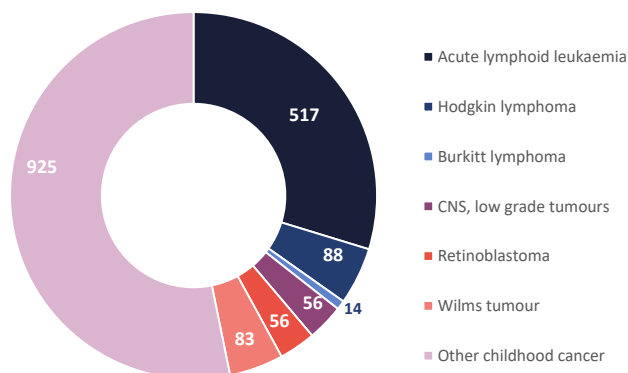
### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	no
Screening programme type	2019	n/a
Screening programme method	2019	n/a
Screening participation rates	2019	n/a
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	1739
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

### Annual cancer cases (0-14 years old)



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

# ANGOLA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**31,825,299**

Total # cancer cases (2018)

**15,949**

Total # cancer deaths (2018)

**10,569**

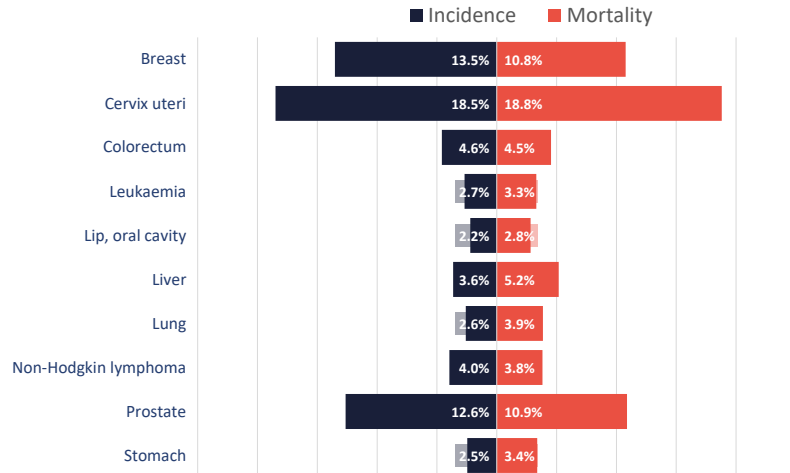
Premature deaths from NCDs (2016)

**24,656**

Cancer as % of NCD premature deaths (2016)

**22.6%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**14.5%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**8.1%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**31.2%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**0.9%**

Obesity (2012)<sup>b</sup>

**35.2%**

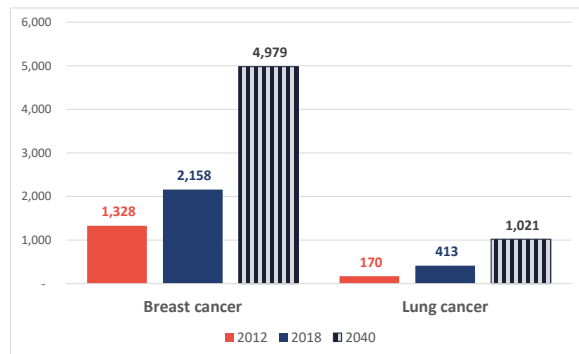
UV (2012)<sup>c</sup>

**0.9%**

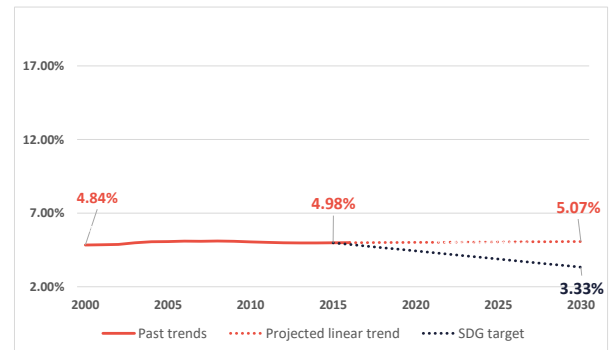
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

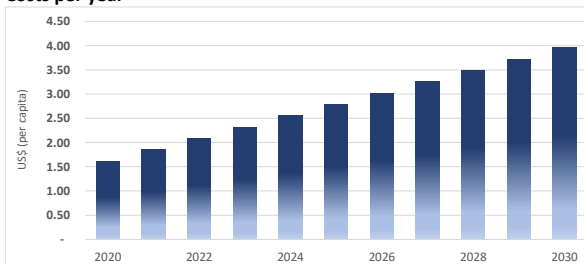


## INVESTMENT CASE (2019)

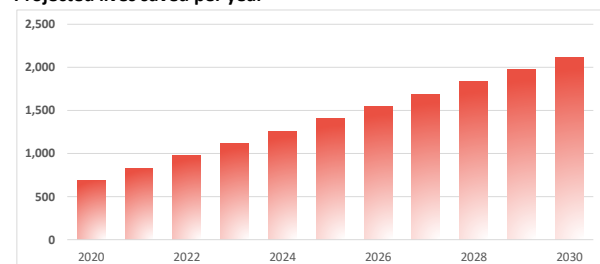
<sup>a</sup>Lower middle income

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\*

2019

Registration activity

Quality of mortality registration\*\*\*

2007-2016

No coverage

# of external beam radiotherapy (photon,electron)<sup>a</sup>

2019

1.9

# of mammographs<sup>a</sup>

2020

7.5

# of CT scanners<sup>a</sup>

2020

9.4

# of MRI scanners<sup>a</sup>

2020

0.6

# of PET or PET/CT scanners<sup>a</sup>

2020

0.0

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer

2019

yes

# of radiation oncologist<sup>a</sup>

2019

n/a

# of medical physicist<sup>a</sup>

2019

n/a

# of surgeons<sup>a</sup>

n/a

n/a

# of radiologist<sup>a</sup>

2019

18.8

# of nuclear medicine physician<sup>a</sup>

2019

1.9

# of medical & pathology lab scientists<sup>a</sup>

2004

n/a

### FORMULATING RESPONSE

Integrated NCD plan

2019

n/a

NCCP (including cancer types)

2019

n/a

MPOWER measures fully implemented and achieved

2018

0

Cancer management guidelines

2019

no

Palliative care included in their operational, integrated NCD plan

2019

n/a

# of treatment services (surgery, radiotherapy, chemotherapy)

2019

3

Breast cancer screening program

2019

no

Breast cancer screening program: Starting age, target population

2019

n/a

# Public cancer centres per 10,000 cancer patients

2019

0.6

Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)

2019

0 cancer(s)

Pathology services

2019

generally available

Bone marrow transplantation capacity

2019

generally not available

Palliative care availability: community/home-based care

2019

generally not available

Availability of opioids\* for pain management

2015-2017

2

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

#### Elimination of Cervical Cancer

HPV vaccination programme coverage

2018

n/a

Cervical cancer screening

2019

no

Screening programme type

2019

n/a

Screening programme method

2019

n/a

Screening participation rates

2019

n/a

Early detection programme/guidelines

2019

no

Defined referral system

2019

yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)

2020

1897

Early detection programme/guidelines

2019

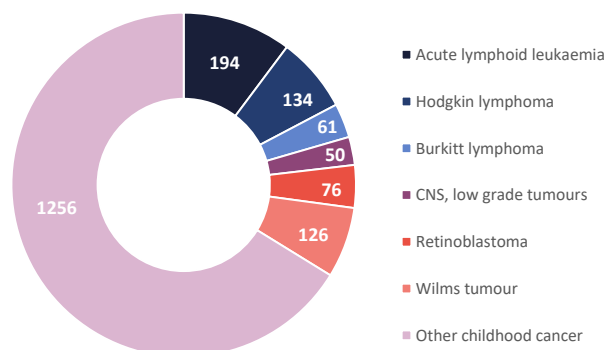
no

Defined referral system

2019

no

Annual cancer cases (0-14 years old)



\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

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

# ALBANIA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**2,880,913**

Total # cancer cases  
(2018)

**8,294**

Total # cancer deaths  
(2018)

**4,693**

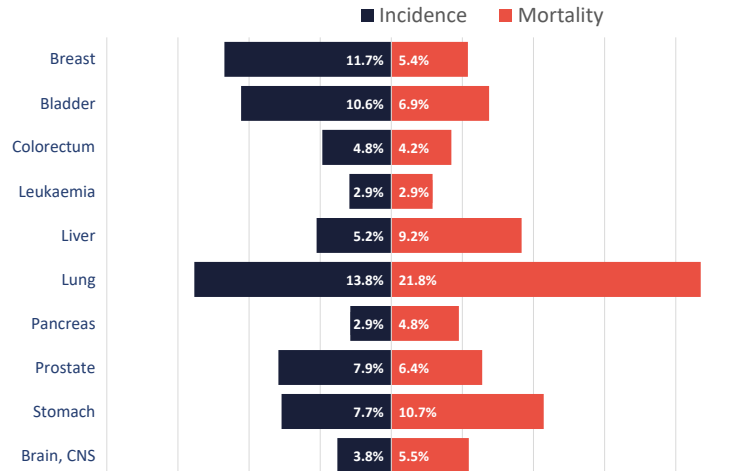
Premature deaths from NCDs (2016)

**6,672**

Cancer as % of NCD premature deaths (2016)

**39.7%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**31.0%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**4.9%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**13.4%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**3.7%**

Obesity (2012)<sup>b</sup>

**30.2%**

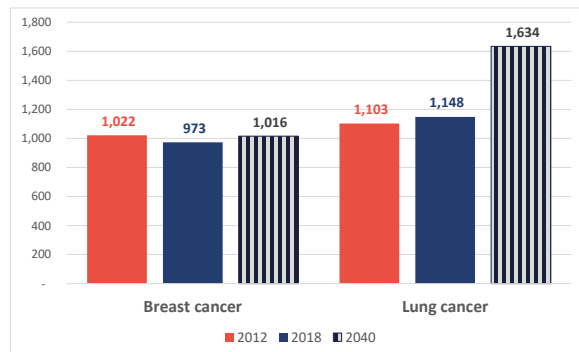
UV (2012)<sup>c</sup>

**1.9%**

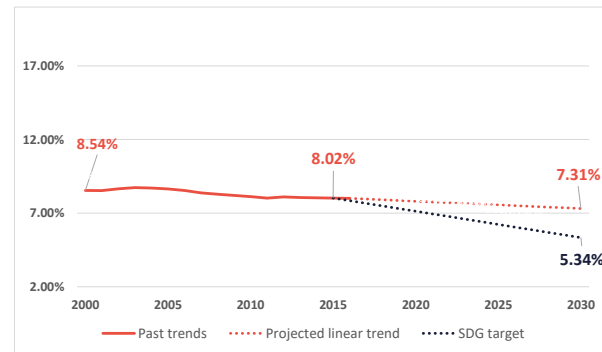
Occupational risk  
(2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

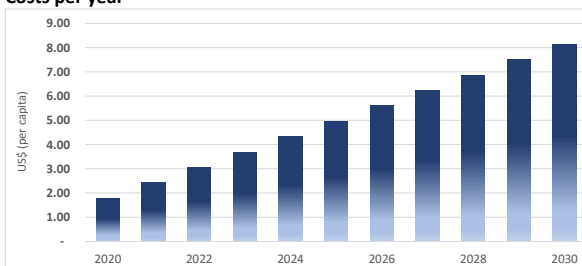


## INVESTMENT CASE (2019)

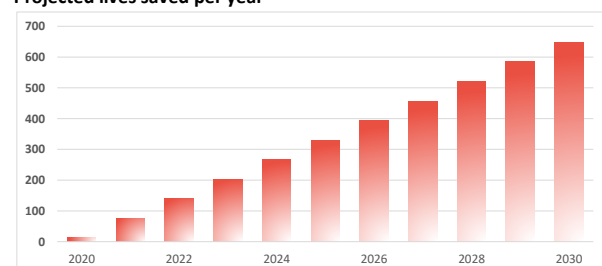
<sup>a</sup>Upper middle income

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

### Costs per year



### Projected lives saved per year



# ALBANIA

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\*

2019 Registration activity

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

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 6.0

# of mammographs<sup>a</sup> 2020 21.7

# of CT scanners<sup>a</sup> 2020 53.1

# of MRI scanners<sup>a</sup> 2020 14.5

# of PET or PET/CT scanners<sup>a</sup> 2020 1.2

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer

2019 yes

# of radiation oncologist<sup>a</sup> 2019 8.4

# of medical physicist<sup>a</sup> 2019 2.4

# of surgeons<sup>a</sup> n/a n/a

# of radiologist<sup>a</sup> 2019 36.2

# of nuclear medicine physician<sup>a</sup> 2019 3.6

# of medical & pathology lab scientists<sup>a</sup> n/a n/a

### FORMULATING RESPONSE

Integrated NCD plan 2019 operational

NCCP (including cancer types) 2019 operational

MPOWER measures fully implemented and achieved 2018 2

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 1.2

Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood) 2019 2 cancer(s)

Pathology services 2019 generally available

Bone marrow transplantation capacity 2019 generally not available

Palliative care availability: community/home-based care 2019 generally not available

Availability of opioids\* for pain management 2015-2017 325

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

#### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 n/a

Cervical cancer screening 2019 yes

Screening programme type 2019 organised

Screening programme method 2019 HPV test

Screening participation rates 2019 10%-50%

Early detection programme/guidelines 2019 yes

Defined referral system 2019 yes

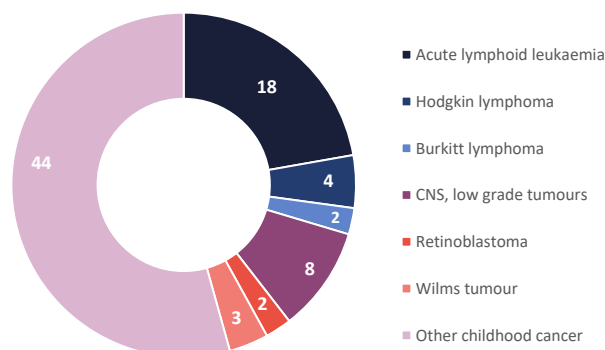
#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 81

Early detection programme/guidelines 2019 no

Defined referral system 2019 no

#### Annual cancer cases (0-14 years old)

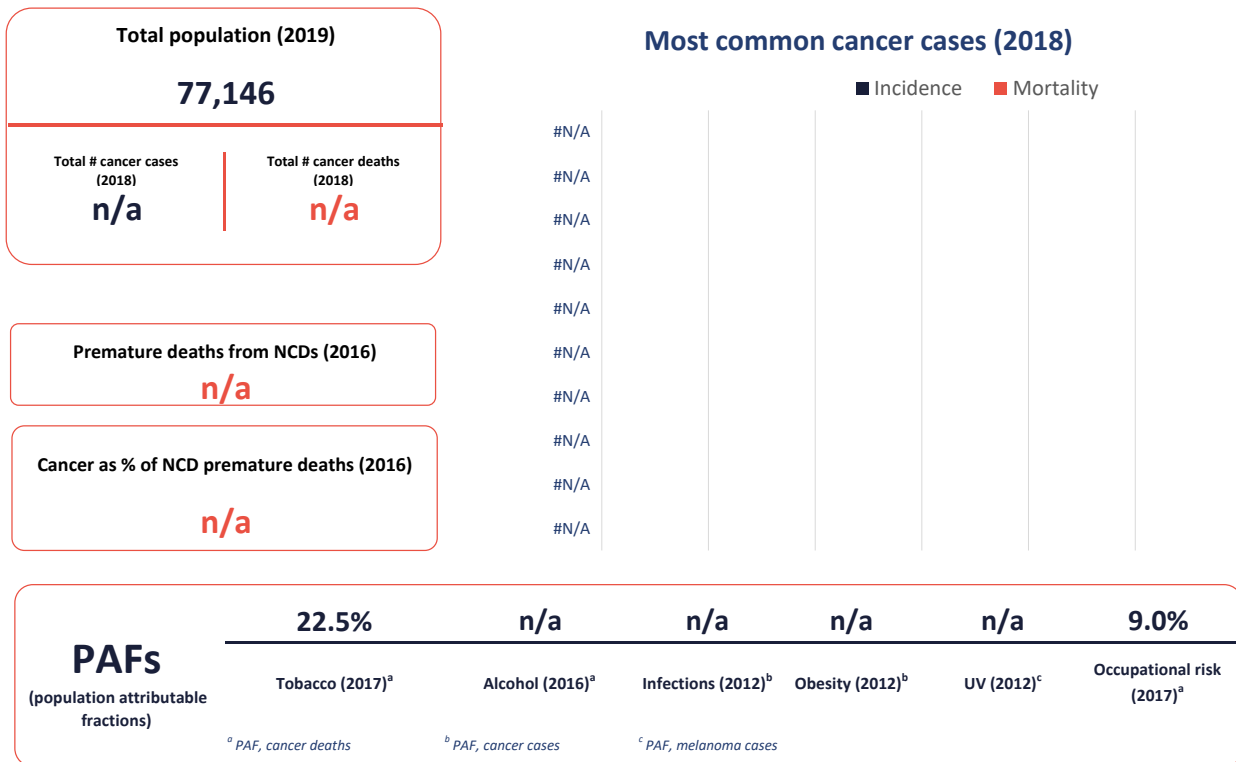


\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

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

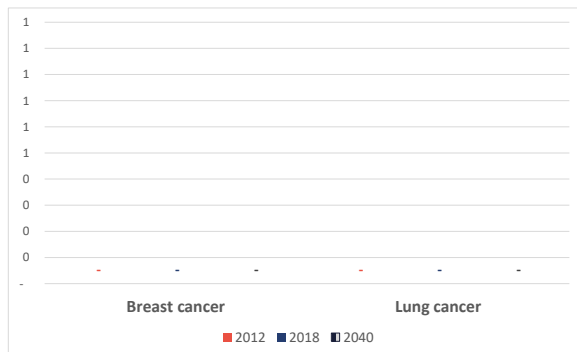


## BURDEN OF CANCER

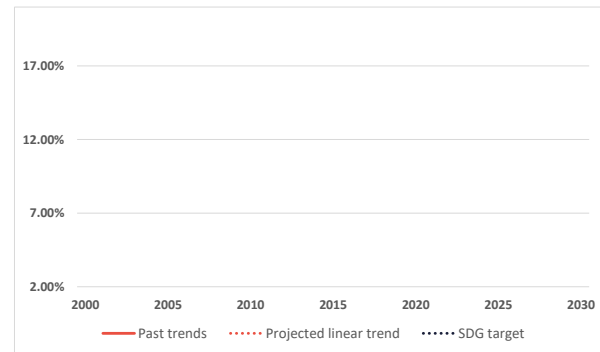


## TRENDS

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



Probability of premature death from cancer per year

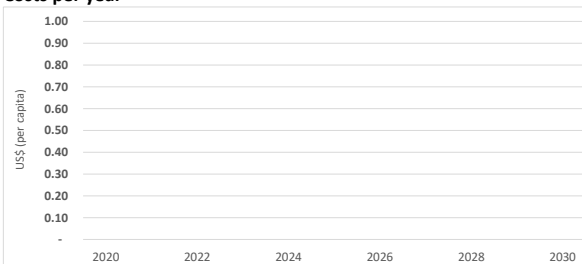


## INVESTMENT CASE (2019)

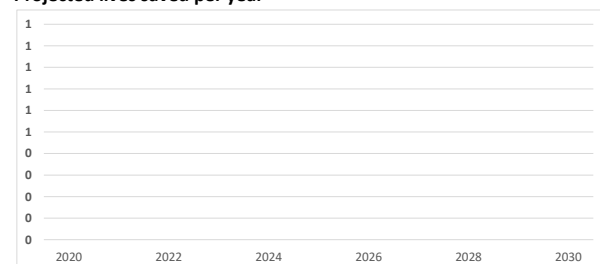
*\*High income*

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	No information	<b>WORKFORCE</b>		
			<sup>a</sup> per 10,000 cancer patients		
Quality of mortality registration***	2007-2016	Medium	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	n/a	# of radiation oncologist <sup>a</sup>	2019	n/a
# of mammographs <sup>a</sup>	2020	n/a	# of medical physicist <sup>a</sup>	2019	n/a
# of CT scanners <sup>a</sup>	2020	n/a	# of surgeons <sup>a</sup>	2014	n/a
# of MRI scanners <sup>a</sup>	2020	n/a	# of radiologist <sup>a</sup>	2019	n/a
# of PET or PET/CT scanners <sup>a</sup>	2020	n/a	# of nuclear medicine physician <sup>a</sup>	2019	n/a
			# of medical & pathology lab scientists <sup>a</sup>	n/a	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients	2019	n/a
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally available
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	n/a	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	3138
Breast cancer screening program	2019	yes			
Breast cancer screening program: Starting age, target population	2019	50			

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

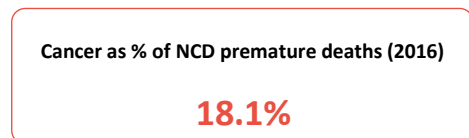
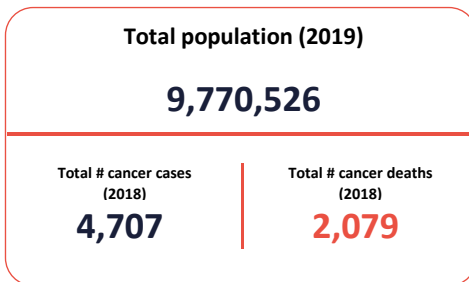
<b>Elimination of Cervical Cancer</b>			<b>Global Initiative for Childhood Cancer</b>		
HPV vaccination programme coverage	2018	0	Annual cancer cases (0-14 years old)	2020	n/a
Cervical cancer screening	2019	no	Early detection programme/guidelines	2019	no
Screening programme type	2019	n/a	Defined referral system	2019	no
Screening programme method	2019	n/a			
Screening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	no			0
Defined referral system	2019	no			
					<ul style="list-style-type: none"> <li>■ Acute lymphoid leukaemia</li> <li>■ Hodgkin lymphoma</li> <li>■ Burkitt lymphoma</li> <li>■ CNS, low grade tumours</li> <li>■ Retinoblastoma</li> <li>■ Wilms tumour</li> <li>■ Other childhood cancer</li> </ul>

\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

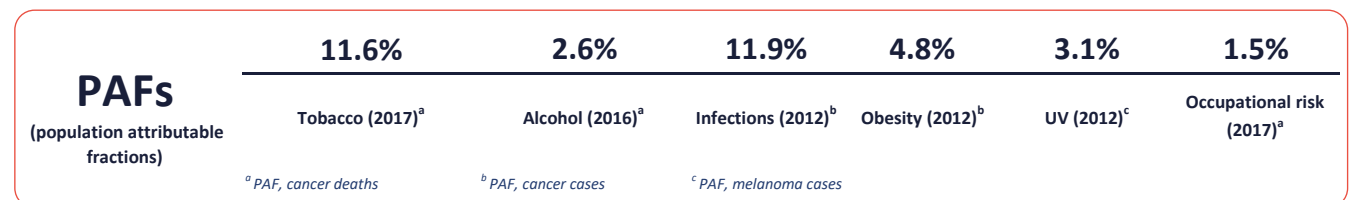
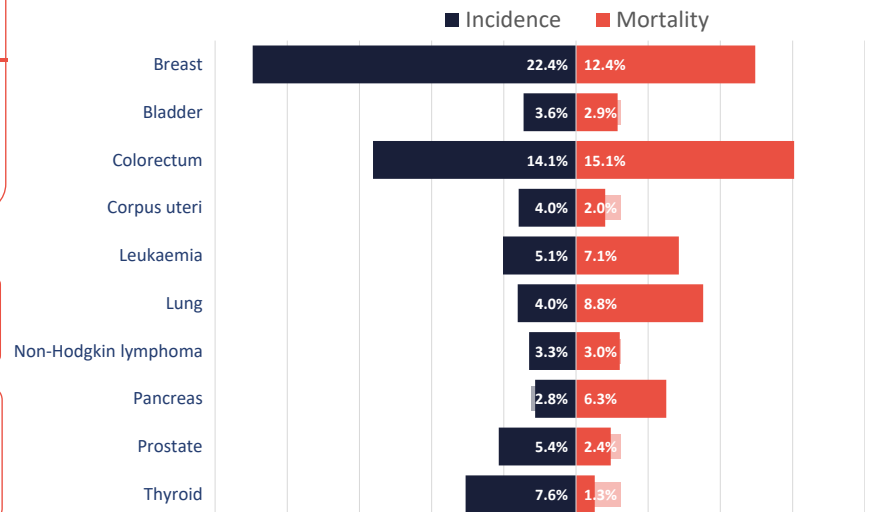
# UNITED ARAB EMIRATES

Cancer Country Profile 2020

## BURDEN OF CANCER

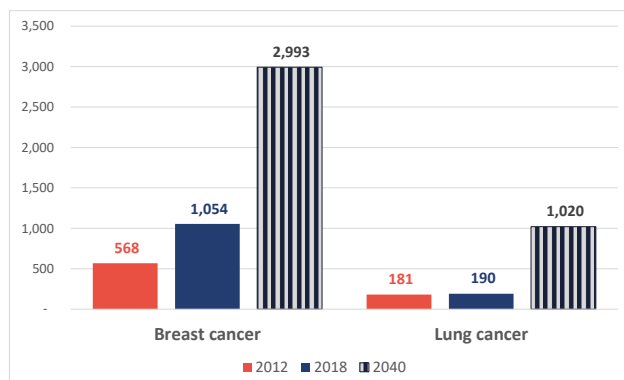


### Most common cancer cases (2018)

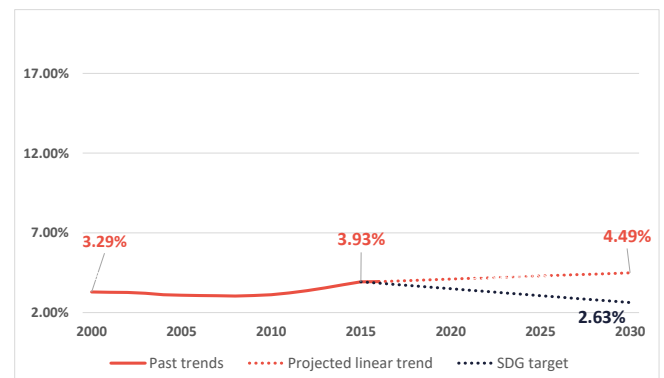


## TRENDS

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



Probability of premature death from cancer per year

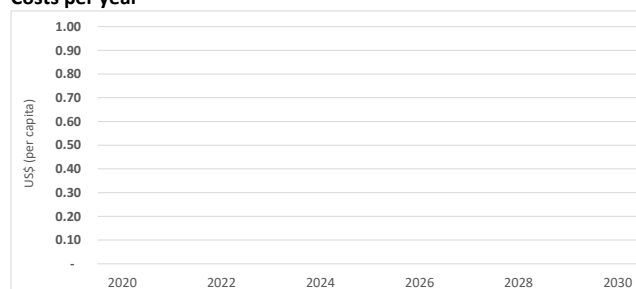


## INVESTMENT CASE (2019)

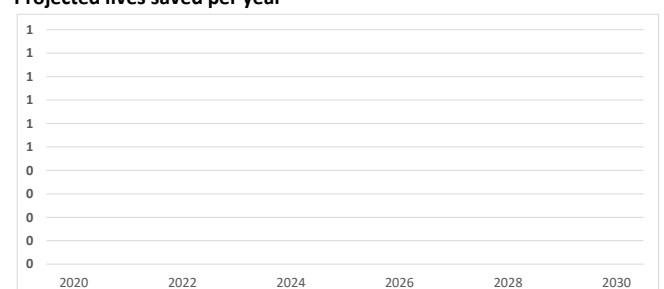
*\*High income*

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

### Costs per year



### Projected lives saved per year



# UNITED ARAB EMIRATES

Cancer Country Profile 2020

## HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR
Quality of mortality registration***	2007-2016	Low
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	10.6
# of mammographs <sup>a</sup>	2020	129.6
# of CT scanners <sup>a</sup>	2020	422.8
# of MRI scanners <sup>a</sup>	2020	373.9
# of PET or PET/CT scanners <sup>a</sup>	2020	12.7

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	74.4
# of surgeons <sup>a</sup>	n/a	n/a
# of radiologist <sup>a</sup>	2019	1064.4
# of nuclear medicine physician <sup>a</sup>	2019	31.9
# of medical & pathology lab scientists <sup>a</sup>	n/a	n/a

## FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	6.4
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	172
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day		
Breast cancer screening program: Starting age, target population	2019	40			

## GLOBAL INITIATIVES

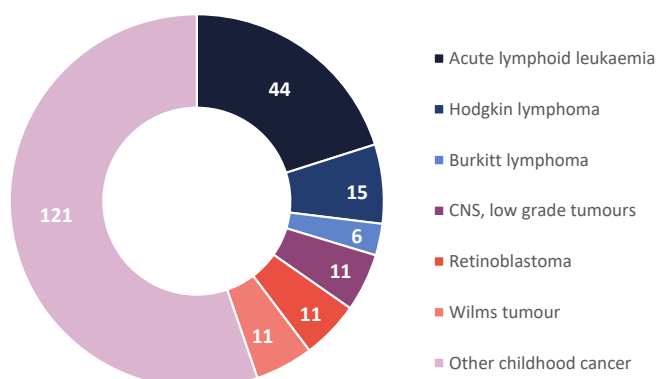
### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	26.2
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
Screening programme method	2019	PAP smear
Screening participation rates	2019	<10%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	219
Early detection programme/guidelines	2019	no
Defined referral system	2019	yes

### Annual cancer cases (0-14 years old)



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

# ARGENTINA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**44,780,675**

Total # cancer cases  
(2018)

**129,047**

Total # cancer deaths  
(2018)

**68,778**

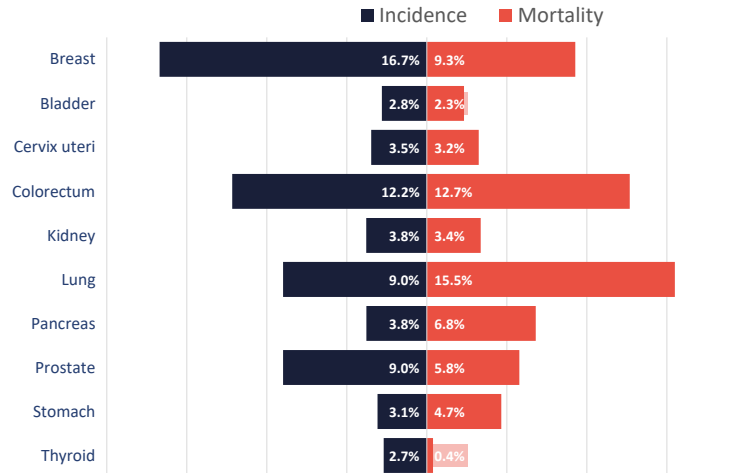
Premature deaths from NCDs (2016)

**80,994**

Cancer as % of NCD premature deaths (2016)

**37.3%**

## Most common cancer cases (2018)



## PAFs

(population attributable fractions)

**25.1%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**6.5%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**9.6%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**6.8%**

Obesity (2012)<sup>b</sup>

**52.8%**

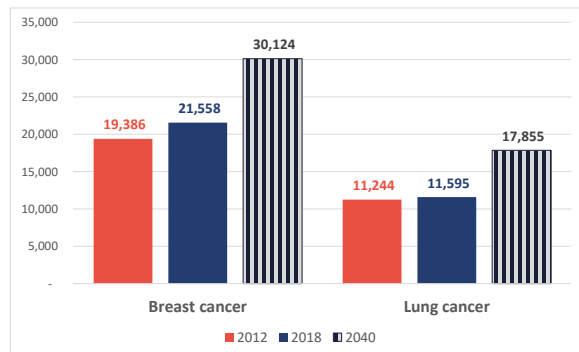
UV (2012)<sup>c</sup>

**3.2%**

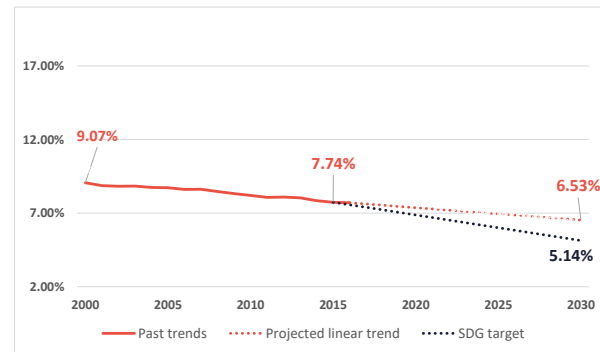
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

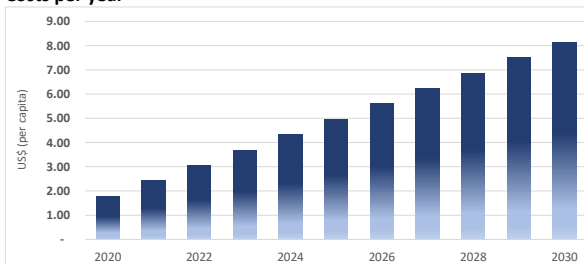


## INVESTMENT CASE (2019)

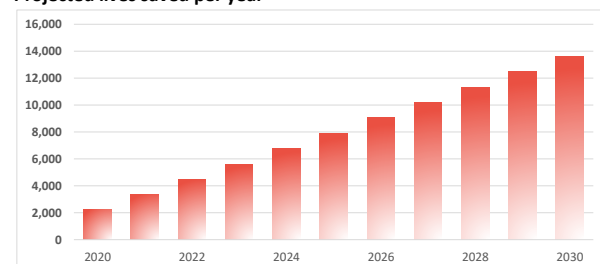
<sup>a</sup>Upper middle income

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

Costs per year



Projected lives saved per year



# ARGENTINA

Cancer Country Profile 2020

## HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 **High quality PBCR**

Quality of mortality registration\*\*\* 2007-2016 **Medium**

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 **9.3**

# of mammographs<sup>a</sup> 2020 **46.5**

# of CT scanners<sup>a</sup> 2020 **147.2**

# of MRI scanners<sup>a</sup> 2020 **50.4**

# of PET or PET/CT scanners<sup>a</sup> 2020 **3.0**

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 **no**

# of radiation oncologist<sup>a</sup> 2019 **n/a**

# of medical physicist<sup>a</sup> 2019 **12.9**

# of surgeons<sup>a</sup> n/a **n/a**

# of radiologist<sup>a</sup> 2019 **310.0**

# of nuclear medicine physician<sup>a</sup> 2019 **31.4**

# of medical & pathology lab scientists<sup>a</sup> 2004 **1521.1**

## 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 **no**

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

Breast cancer screening program 2019 **yes**

Breast cancer screening program: Starting age, target population 2019 **50**

# Public cancer centres per 10,000 cancer patients 2019 **n/a**

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

Pathology services 2019 **generally available**

Bone marrow transplantation capacity 2019 **don't know**

Palliative care availability: community/home-based care 2019 **don't know**

Availability of opioids\* for pain management 2015-2017 **721**

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

## GLOBAL INITIATIVES

### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 **57.1**

Cervical cancer screening 2019 **yes**

Screening programme type 2019 **organised**

Screening programme method 2019 **HPV test**

Screening participation rates 2019 **don't know**

Early detection programme/guidelines 2019 **yes**

Defined referral system 2019 **yes**

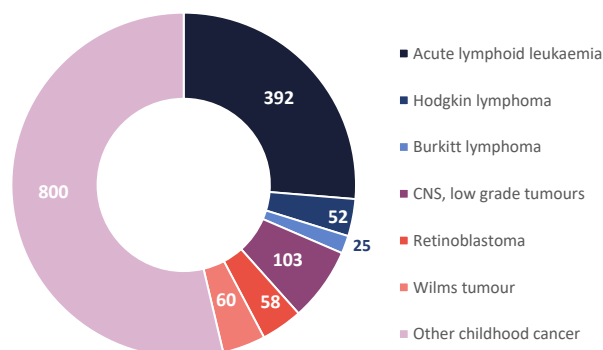
### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 **1490**

Early detection programme/guidelines 2019 **yes**

Defined referral system 2019 **yes**

### Annual cancer cases (0-14 years old)



# ARMENIA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**2,957,728**

Total # cancer cases  
(2018)

**8,835**

Total # cancer deaths  
(2018)

**6,394**

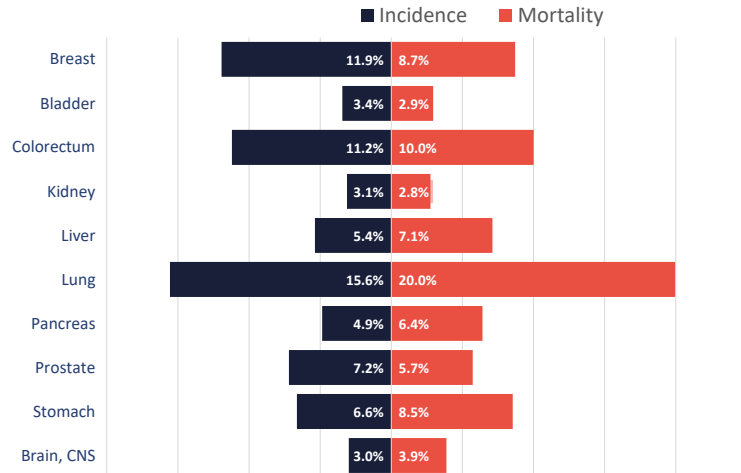
Premature deaths from NCDs (2016)

**8,460**

Cancer as % of NCD premature deaths (2016)

**50.7%**

## Most common cancer cases (2018)



## PAFs

(population attributable fractions)

**28.4%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**5.0%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**12.2%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**5.5%**

Obesity (2012)<sup>b</sup>

**47.5%**

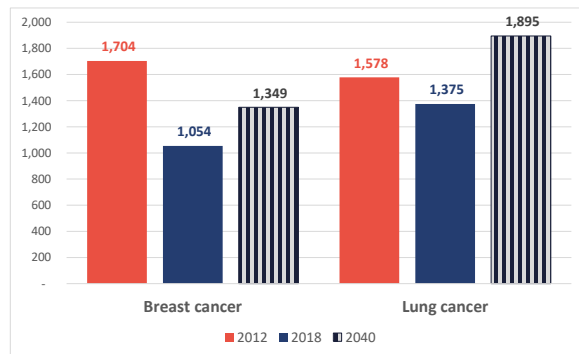
UV (2012)<sup>c</sup>

**4.1%**

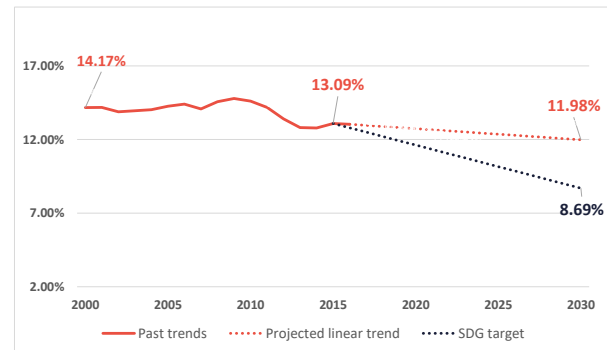
Occupational risk  
(2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

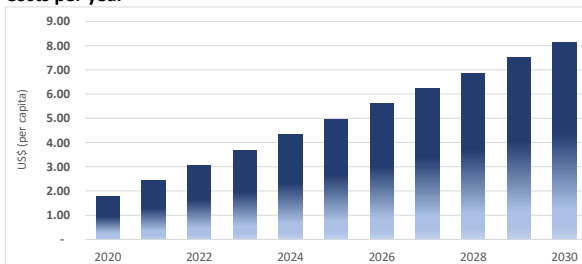


## INVESTMENT CASE (2019)

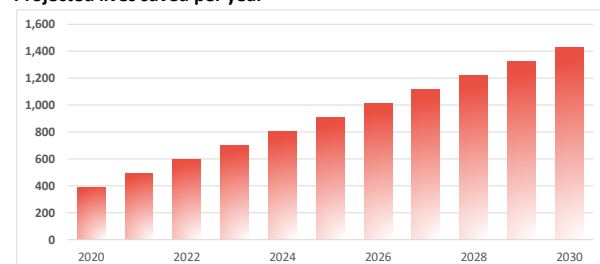
<sup>a</sup>Upper middle income

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

Costs per year



Projected lives saved per year



# ARMENIA

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\*

2019 Registration activity

Quality of mortality registration\*\*\* 2007-2016 High

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 3.4

# of mammographs<sup>a</sup> 2020 7.9

# of CT scanners<sup>a</sup> 2020 37.4

# of MRI scanners<sup>a</sup> 2020 13.6

# of PET or PET/CT scanners<sup>a</sup> 2020 1.1

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer

2019 yes

# of radiation oncologist<sup>a</sup> 2019 n/a

# of medical physicist<sup>a</sup> 2019 5.7

# of surgeons<sup>a</sup> 2014 1144.3

# of radiologist<sup>a</sup> 2019 305.6

# of nuclear medicine physician<sup>a</sup> 2019 7.9

# of medical & pathology lab scientists<sup>a</sup> n/a n/a

### FORMULATING RESPONSE

Integrated NCD plan 2019 operational

NCCP (including cancer types) 2019 n/a

MPOWER measures fully implemented and achieved 2018 1

Cancer management guidelines 2019 yes

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

# of treatment services (surgery, radiotherapy, chemotherapy) 2019 2

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 n/a

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 not available

Availability of opioids\* for pain management 2015-2017 29

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

#### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 2

Cervical cancer screening 2019 yes

Screening programme type 2019 organised

Screening programme method 2019 PAP smear

Screening participation rates 2019 10%-50%

Early detection programme/guidelines 2019 yes

Defined referral system 2019 yes

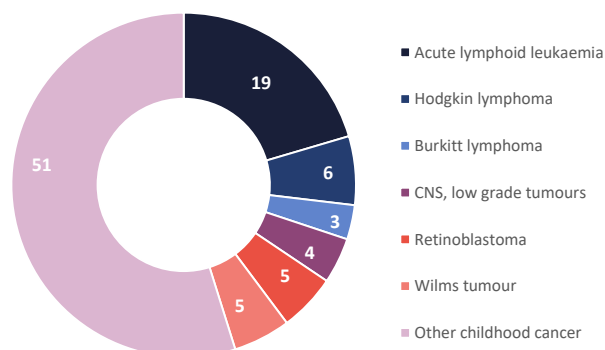
#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 93

Early detection programme/guidelines 2019 yes

Defined referral system 2019 yes

#### Annual cancer cases (0-14 years old)



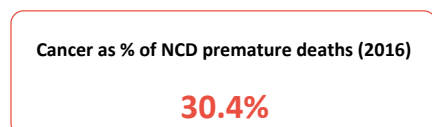
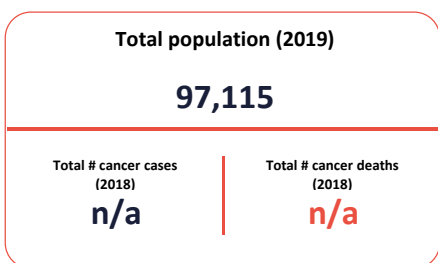
\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry



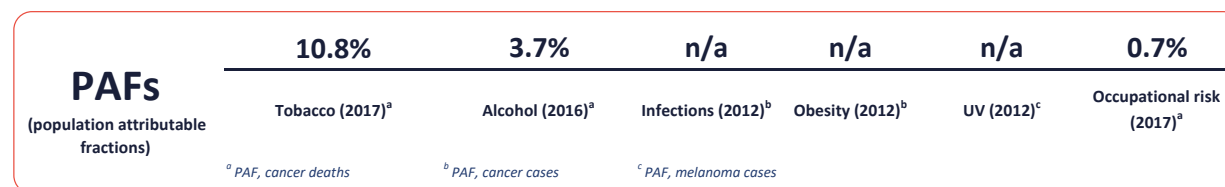
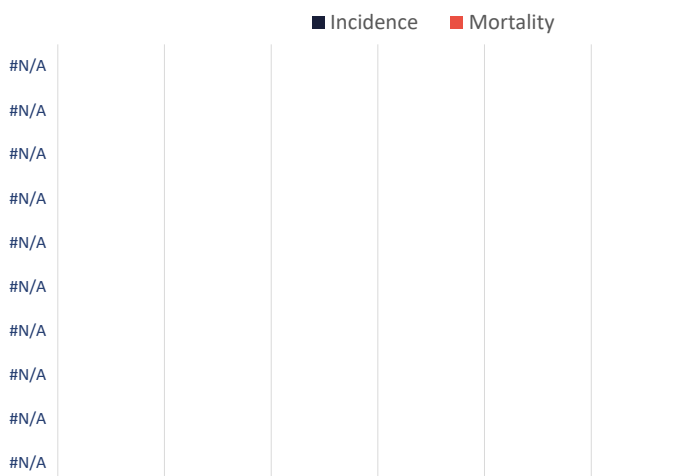
# ANTIGUA AND BARBUDA

Cancer Country Profile 2020

## BURDEN OF CANCER

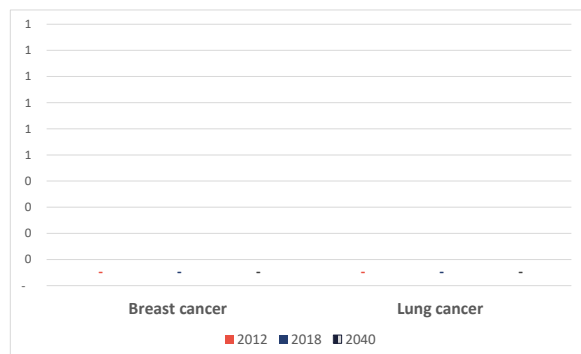


### Most common cancer cases (2018)

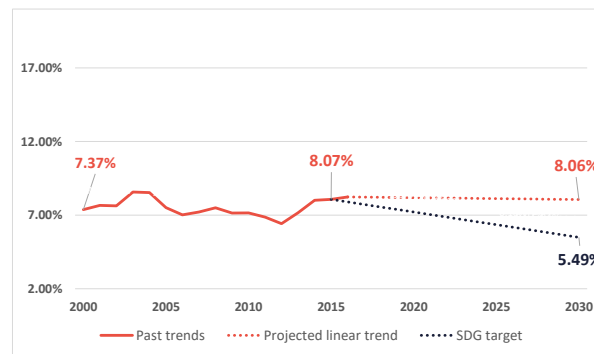


## TRENDS

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



Probability of premature death from cancer per year

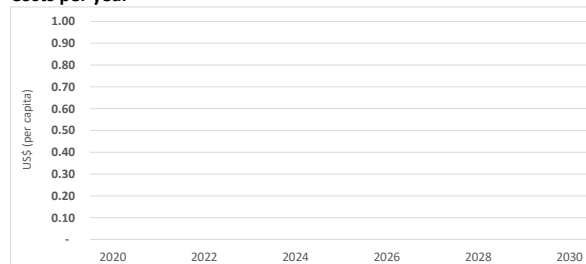


## INVESTMENT CASE (2019)

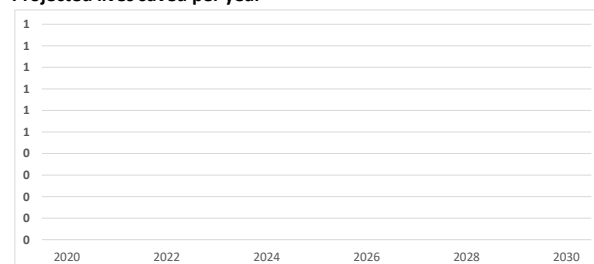
\*High income

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

### Costs per year



### Projected lives saved per year



# ANTIGUA AND BARBUDA

Cancer Country Profile 2020

## HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 No information

Quality of mortality registration\*\*\* 2007-2016 Medium

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 n/a

# of mammographs<sup>a</sup> 2020 n/a

# of CT scanners<sup>a</sup> 2020 n/a

# of MRI scanners<sup>a</sup> 2020 n/a

# of PET or PET/CT scanners<sup>a</sup> 2020 n/a

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 n/a

# of radiation oncologist<sup>a</sup> 2019 n/a

# of medical physicist<sup>a</sup> 2019 n/a

# of surgeons<sup>a</sup> 2014 n/a

# of radiologist<sup>a</sup> 2019 n/a

# of nuclear medicine physician<sup>a</sup> 2019 n/a

# of medical & pathology lab scientists<sup>a</sup> 2007 n/a

## FORMULATING RESPONSE

Integrated NCD plan 2019 operational

NCCP (including cancer types) 2019 n/a

MPOWER measures fully implemented and achieved 2018 2

Cancer management guidelines 2019 no

Palliative care included in their operational, integrated NCD plan 2019 no

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

Breast cancer screening program 2019 no

Breast cancer screening program: Starting age, target population 2019 n/a

# Public cancer centres per 10,000 cancer patients 2019 n/a

Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood) 2019 0 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 0

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

## GLOBAL INITIATIVES

### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 0

Cervical cancer screening 2019 no

Screening programme type 2019 n/a

Screening programme method 2019 n/a

Screening participation rates 2019 n/a

Early detection programme/guidelines 2019 no

Defined referral system 2019 yes

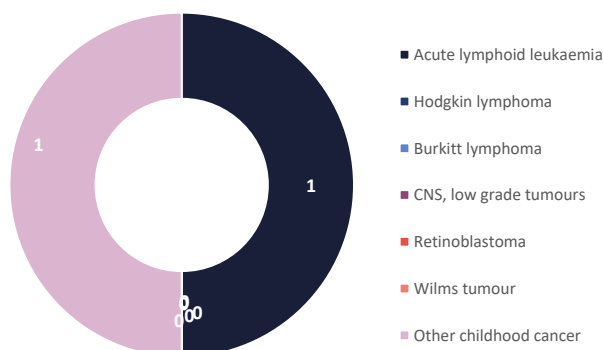
### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 2

Early detection programme/guidelines 2019 no

Defined referral system 2019 yes

### Annual cancer cases (0-14 years old)



\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

# AUSTRALIA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**25,203,200**

Total # cancer cases (2018)

**197,876**

Total # cancer deaths (2018)

**49,500**

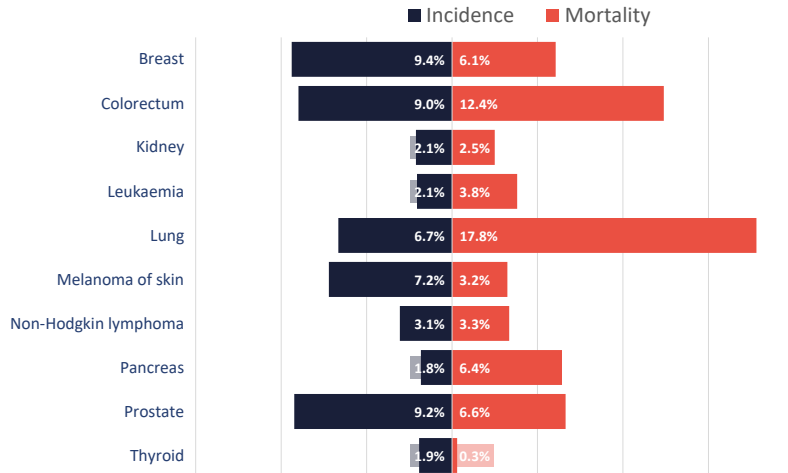
Premature deaths from NCDs (2016)

**32,148**

Cancer as % of NCD premature deaths (2016)

**50.0%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**20.7%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**7.1%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**3.7%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**5.1%**

Obesity (2012)<sup>b</sup>

**96.1%**

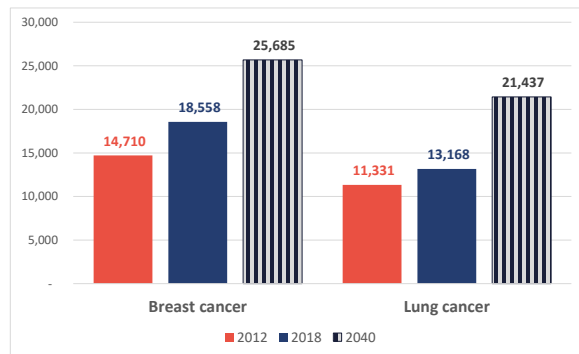
UV (2012)<sup>c</sup>

**8.6%**

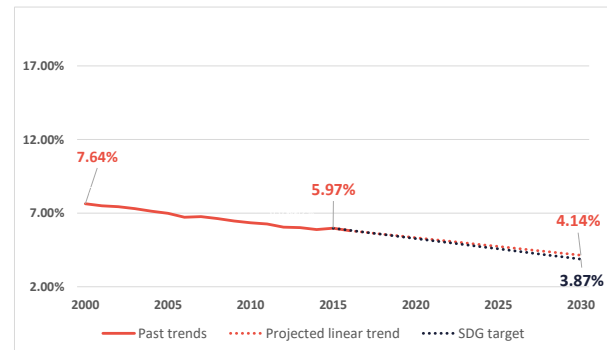
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

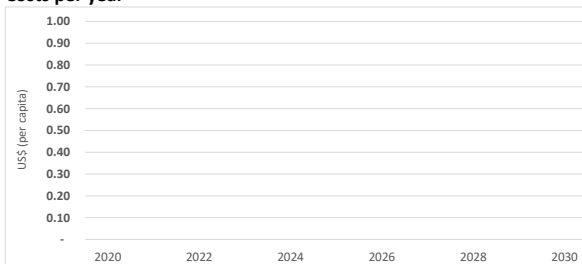


## INVESTMENT CASE (2019)

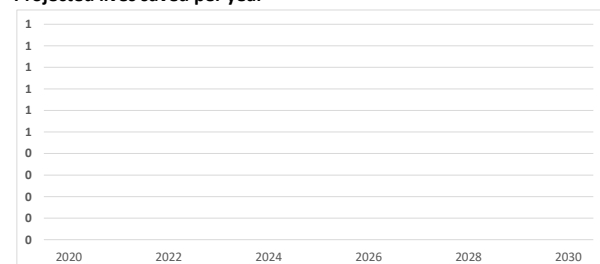
<sup>a</sup>High income

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

Costs per year



Projected lives saved per year



# AUSTRALIA

Cancer Country Profile 2020

## HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 **High quality PBCR**

Quality of mortality registration\*\*\* 2007-2016 **High**

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 **11.2**

# of mammographs<sup>a</sup> 2020 **28.9**

# of CT scanners<sup>a</sup> 2020 **80.1**

# of MRI scanners<sup>a</sup> 2020 **18.6**

# of PET or PET/CT scanners<sup>a</sup> 2020 **4.0**

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 **yes**

# of radiation oncologist<sup>a</sup> 2019 **11.2**

# of medical physicist<sup>a</sup> 2019 **36.2**

# of surgeons<sup>a</sup> 2015 **223.5**

# of radiologist<sup>a</sup> 2019 **101.7**

# of nuclear medicine physician<sup>a</sup> 2019 **20.2**

# of medical & pathology lab scientists<sup>a</sup> n/a **n/a**

## FORMULATING RESPONSE

Integrated NCD plan 2019 **operational**

NCCP (including cancer types) 2019 **operational**

MPOWER measures fully implemented and achieved 2018 **4**

Cancer management guidelines 2019 **yes**

Palliative care included in their operational, integrated NCD plan 2019 **no**

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

Breast cancer screening program 2019 **yes**

Breast cancer screening program: Starting age, target population 2019 **50**

# Public cancer centres per 10,000 cancer patients 2019 **n/a**

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 available**

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

Availability of opioids\* for pain management 2015-2017 **11043**

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

## GLOBAL INITIATIVES

### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 **80.2**

Cervical cancer screening 2019 **yes**

Screening programme type 2019 **organised**

Screening programme method 2019 **HPV test**

Screening participation rates 2019 **>50% and <70%**

Early detection programme/guidelines 2019 **yes**

Defined referral system 2019 **yes**

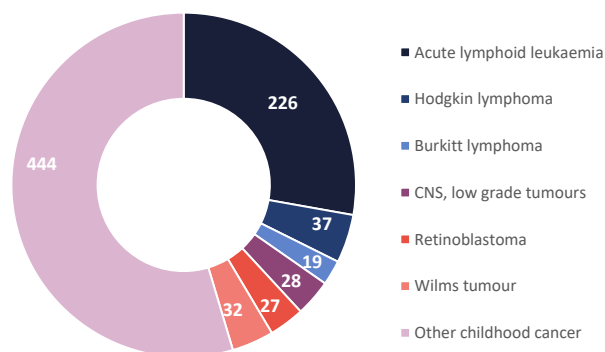
### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 **813**

Early detection programme/guidelines 2019 **no**

Defined referral system 2019 **yes**

### Annual cancer cases (0-14 years old)



# AUSTRIA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**8,955,108**

Total # cancer cases  
(2018)

**45,812**

Total # cancer deaths  
(2018)

**21,936**

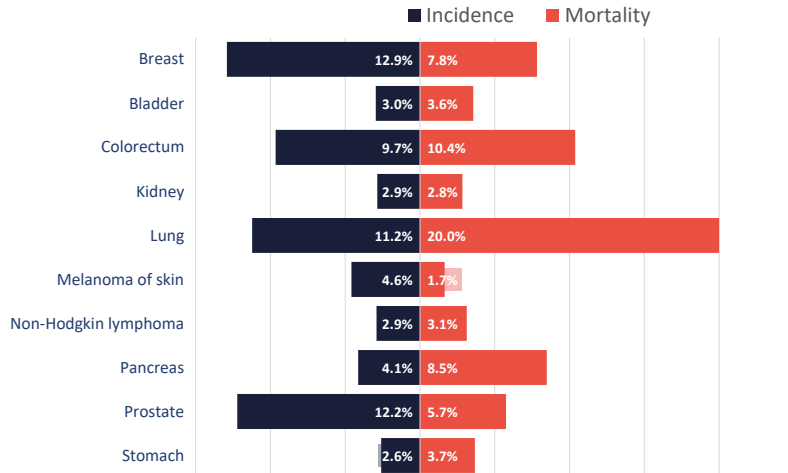
Premature deaths from NCDs (2016)

**15,512**

Cancer as % of NCD premature deaths (2016)

**48.2%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**25.8%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**8.2%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**5.6%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**5.1%**

Obesity (2012)<sup>b</sup>

**83.3%**

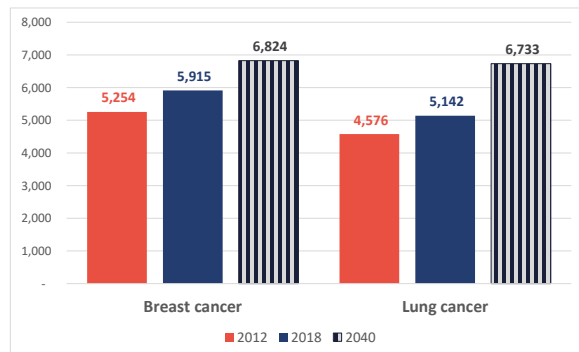
UV (2012)<sup>c</sup>

**5.2%**

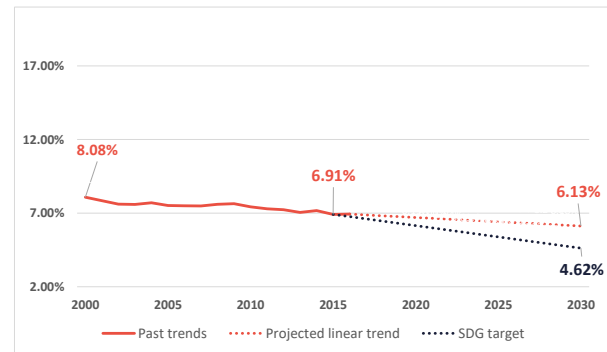
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

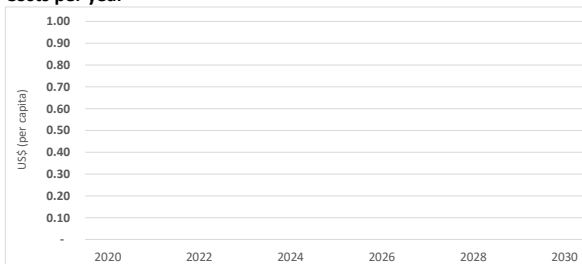


## INVESTMENT CASE (2019)

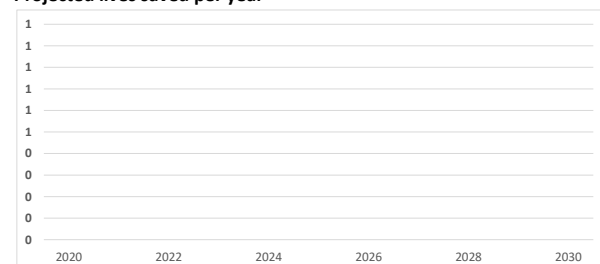
*\*High income*

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

Costs per year



Projected lives saved per year



# AUSTRIA

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR
Quality of mortality registration***	2007-2016	High
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	10.3
# of mammographs <sup>a</sup>	2020	43.9
# of CT scanners <sup>a</sup>	2020	70.1
# of MRI scanners <sup>a</sup>	2020	52.6
# of PET or PET/CT scanners <sup>a</sup>	2020	5.0

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	21.8
# of medical physicist <sup>a</sup>	2019	45.8
# of surgeons <sup>a</sup>	2014	1695.4
# of radiologist <sup>a</sup>	2019	347.6
# of nuclear medicine physician <sup>a</sup>	2019	50.9
# of medical & pathology lab scientists <sup>a</sup>	n/a	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	under development	# Public cancer centres per 10,000 cancer patients	2019	9.8
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	20283
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	45			

### GLOBAL INITIATIVES

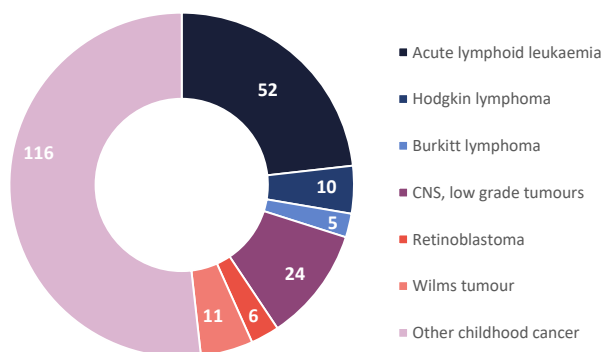
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	0
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
Screening programme method	2019	PAP smear
Screening participation rates	2019	don't know
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	224
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Annual cancer cases (0-14 years old)



# AZERBAIJAN

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**10,047,719**

Total # cancer cases  
(2018)

**11,606**

Total # cancer deaths  
(2018)

**8,133**

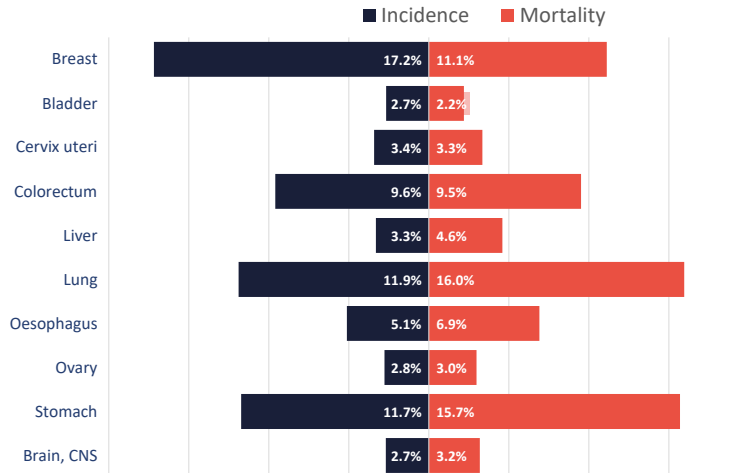
Premature deaths from NCDs (2016)

**22,373**

Cancer as % of NCD premature deaths (2016)

**31.1%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**24.8%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**3.2%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**15.4%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**2.6%**

Obesity (2012)<sup>b</sup>

**35.4%**

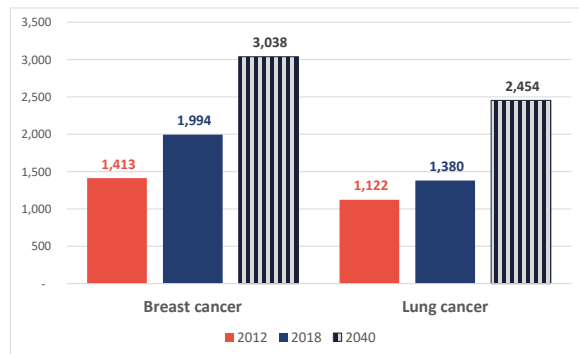
UV (2012)<sup>c</sup>

**1.5%**

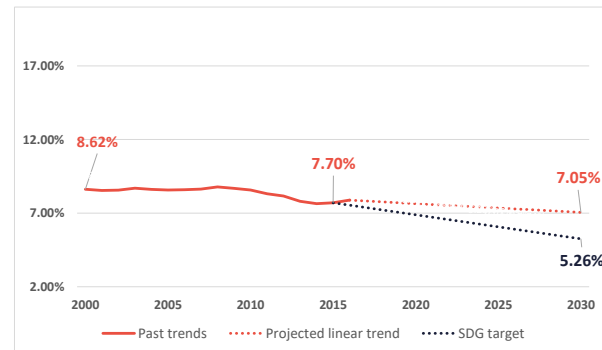
Occupational risk  
(2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

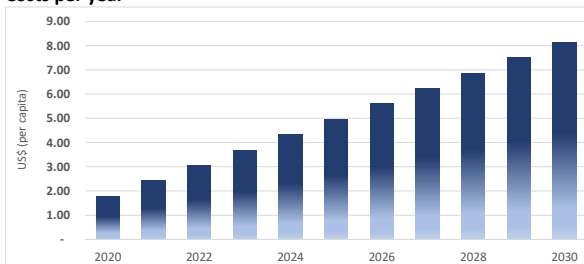


## INVESTMENT CASE (2019)

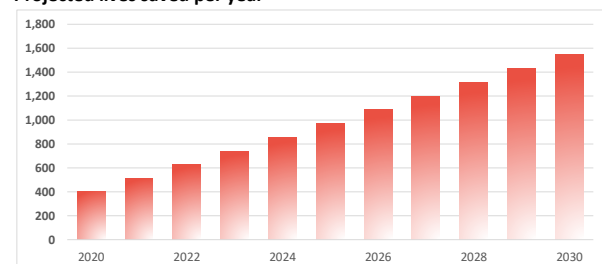
<sup>a</sup>Upper middle income

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

### Costs per year



### Projected lives saved per year



# AZERBAIJAN

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\*

2019 Registration activity

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

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 8.6

# of mammographs<sup>a</sup> 2020 21.5

# of CT scanners<sup>a</sup> 2020 75.0

# of MRI scanners<sup>a</sup> 2020 32.7

# of PET or PET/CT scanners<sup>a</sup> 2020 0.9

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer

2019 yes

# of radiation oncologist<sup>a</sup> 2019 n/a

# of medical physicist<sup>a</sup> 2019 n/a

# of surgeons<sup>a</sup> n/a n/a

# of radiologist<sup>a</sup> 2019 n/a

# of nuclear medicine physician<sup>a</sup> 2019 2.6

# of medical & pathology lab scientists<sup>a</sup> n/a n/a

### FORMULATING RESPONSE

Integrated NCD plan 2019 operational

NCCP (including cancer types) 2019 operational

MPOWER measures fully implemented and achieved 2018 1

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 no

Breast cancer screening program: Starting age, target population 2019 n/a

# Public cancer centres per 10,000 cancer patients 2019 1.7

Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood) 2019 0 cancer(s)

Pathology services 2019 generally available

Bone marrow transplantation capacity 2019 generally not available

Palliative care availability: community/home-based care 2019 generally not available

Availability of opioids\* for pain management 2015-2017 19

\*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

#### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 n/a

Cervical cancer screening 2019 no

Screening programme type 2019 n/a

Screening programme method 2019 n/a

Screening participation rates 2019 n/a

Early detection programme/guidelines 2019 no

Defined referral system 2019 yes

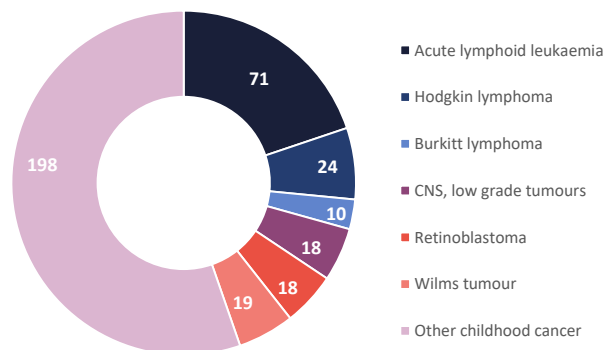
#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 358

Early detection programme/guidelines 2019 no

Defined referral system 2019 yes

#### Annual cancer cases (0-14 years old)



\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

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



# BURUNDI

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**11,530,577**

Total # cancer cases  
(2018)

**8,682**

Total # cancer deaths  
(2018)

**6,792**

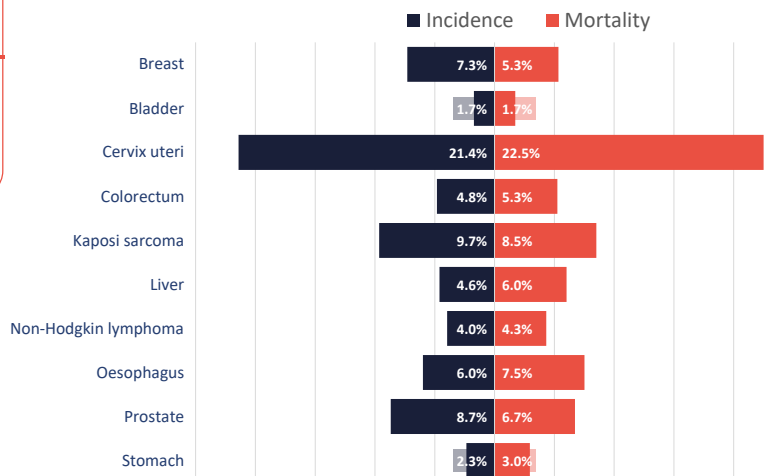
Premature deaths from NCDs (2016)

**14,108**

Cancer as % of NCD premature deaths (2016)

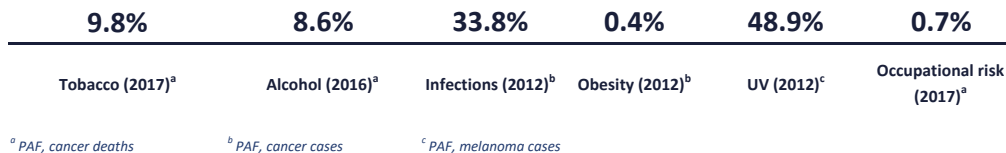
**30.6%**

## Most common cancer cases (2018)



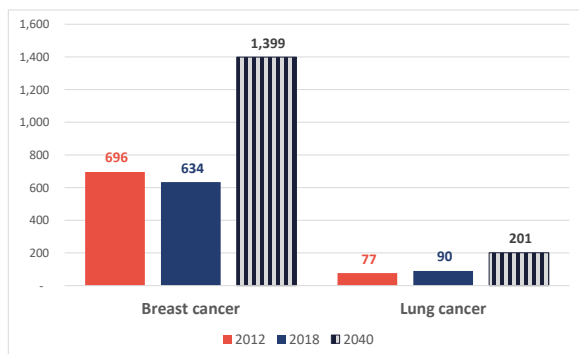
## PAFs

(population attributable fractions)

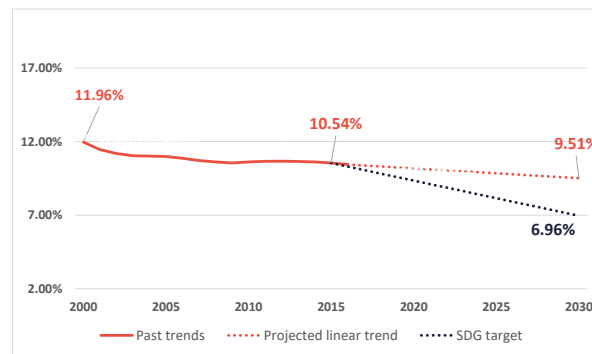


## TRENDS

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



### Probability of premature death from cancer per year

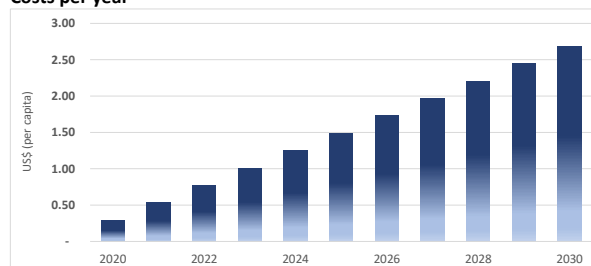


## INVESTMENT CASE (2019)

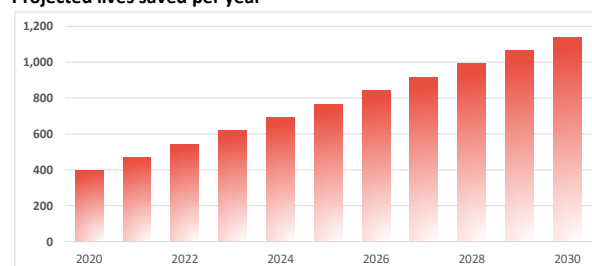
*\*Low income*

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

### Costs per year



### Projected lives saved per year



# BURUNDI

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 No information

Quality of mortality registration\*\*\* 2007-2016 No coverage

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 0.0

# of mammographs<sup>a</sup> 2020 2.3

# of CT scanners<sup>a</sup> 2020 4.6

# of MRI scanners<sup>a</sup> 2020 0.0

# of PET or PET/CT scanners<sup>a</sup> 2020 0.0

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 yes

# of radiation oncologist<sup>a</sup> 2019 0.0

# of medical physicist<sup>a</sup> 2019 n/a

# of surgeons<sup>a</sup> n/a n/a

# of radiologist<sup>a</sup> 2019 6.9

# of nuclear medicine physician<sup>a</sup> 2019 0.0

# of medical & pathology lab scientists<sup>a</sup> 2010 18.4

### FORMULATING RESPONSE

Integrated NCD plan 2019 operational

NCCP (including cancer types) 2019 operational

MPOWER measures fully implemented and achieved 2018 1

Cancer management guidelines 2019 yes

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

# of treatment services (surgery, radiotherapy, chemotherapy) 2019 0

Breast cancer screening program 2019 no

Breast cancer screening program: Starting age, target population 2019 n/a

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

Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood) 2019 0 cancer(s)

Pathology services 2019 generally not available

Bone marrow transplantation capacity 2019 generally not available

Palliative care availability: community/home-based care 2019 generally not available

Availability of opioids\* for pain management 2015-2017 4

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

#### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 n/a

Cervical cancer screening 2019 no

Screening programme type 2019 n/a

Screening programme method 2019 n/a

Screening participation rates 2019 n/a

Early detection programme/guidelines 2019 no

Defined referral system 2019 no

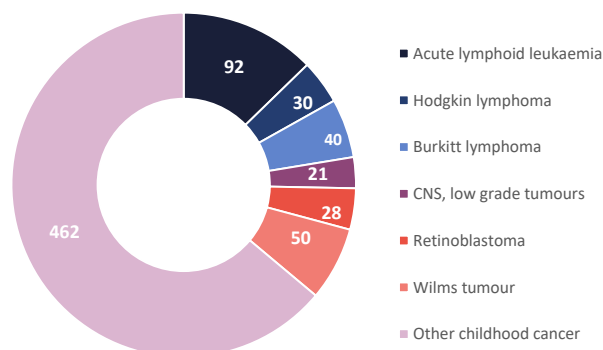
#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 723

Early detection programme/guidelines 2019 no

Defined referral system 2019 no

#### Annual cancer cases (0-14 years old)



\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

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

# BELGIUM

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**11,539,326**

Total # cancer cases  
(2018)

**79,931**

Total # cancer deaths  
(2018)

**29,617**

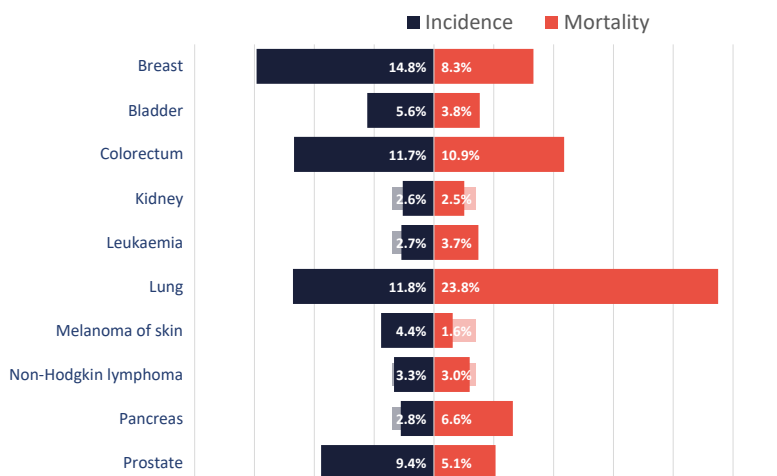
Premature deaths from NCDs (2016)

**20,754**

Cancer as % of NCD premature deaths (2016)

**50.6%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**30.8%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**7.7%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**4.3%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**5.4%**

Obesity (2012)<sup>b</sup>

**85.3%**

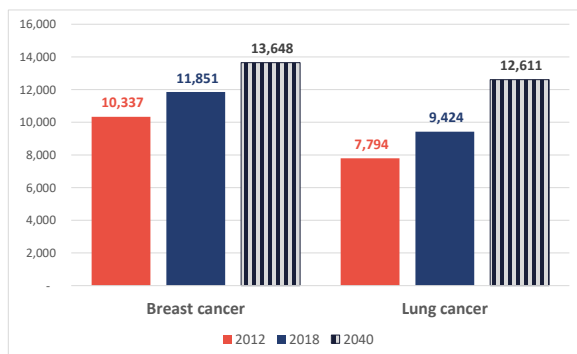
UV (2012)<sup>c</sup>

**9.2%**

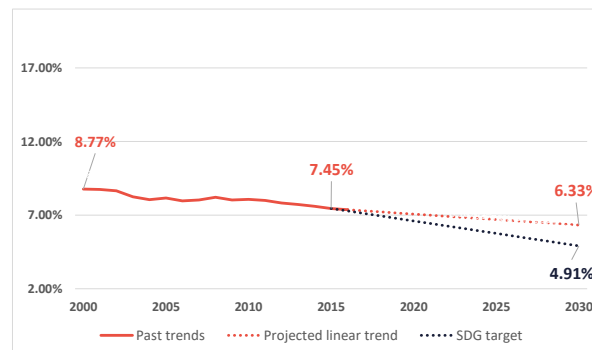
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

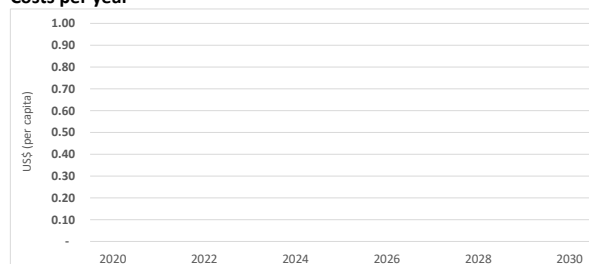


## INVESTMENT CASE (2019)

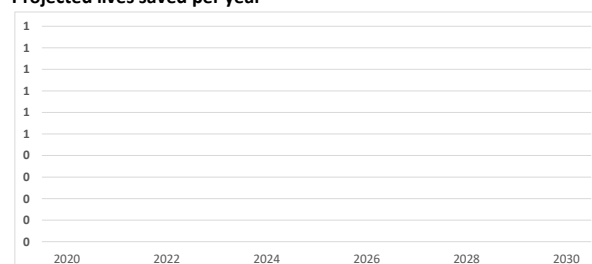
*\*High income*

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

### Costs per year



### Projected lives saved per year



# BELGIUM

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR
Quality of mortality registration***	2007-2016	High
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	11.4
# of mammographs <sup>a</sup>	2020	25.0
# of CT scanners <sup>a</sup>	2020	35.2
# of MRI scanners <sup>a</sup>	2020	17.5
# of PET or PET/CT scanners <sup>a</sup>	2020	3.1

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	19.8
# of medical physicist <sup>a</sup>	2019	26.9
# of surgeons <sup>a</sup>	2012	697.0
# of radiologist <sup>a</sup>	2019	185.8
# of nuclear medicine physician <sup>a</sup>	2019	37.5
# of medical & pathology lab scientists <sup>a</sup>	n/a	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	7.4
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	17303
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	50			

### GLOBAL INITIATIVES

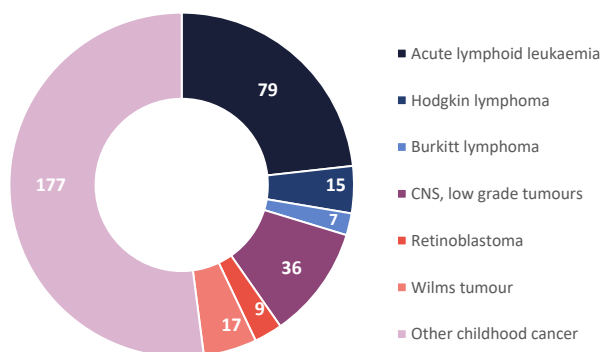
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	66.8
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	no

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	340
Early detection programme/guidelines	2019	don't know
Defined referral system	2019	don't know

#### Annual cancer cases (0-14 years old)



# BENIN

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**11,801,151**

Total # cancer cases  
(2018)

**8,036**

Total # cancer deaths  
(2018)

**5,667**

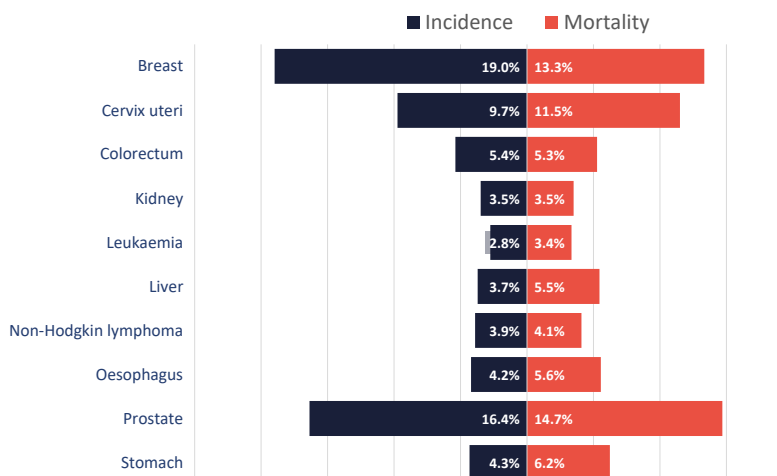
Premature deaths from NCDs (2016)

**14,407**

Cancer as % of NCD premature deaths (2016)

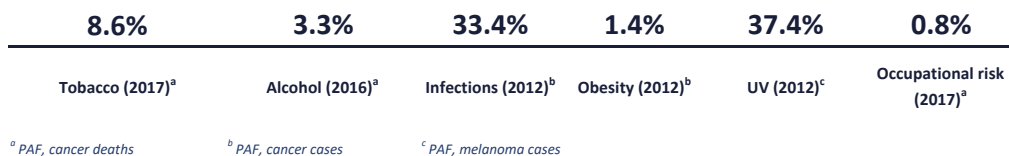
**17.5%**

### Most common cancer cases (2018)



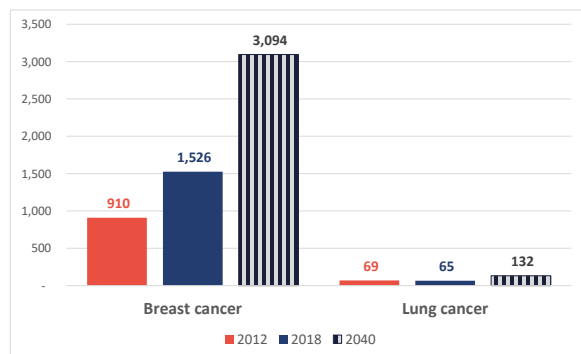
### PAFs

(population attributable fractions)

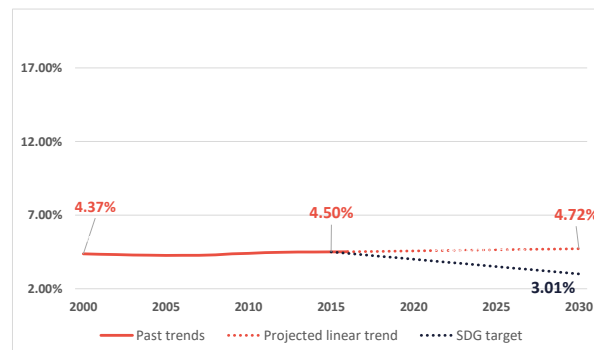


## TRENDS

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



### Probability of premature death from cancer per year

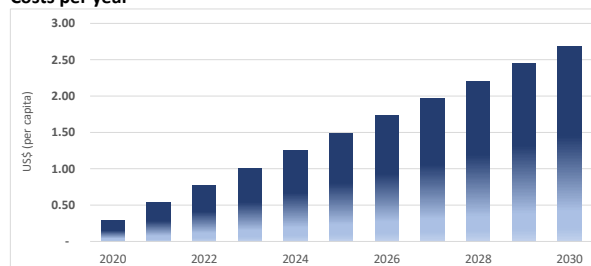


## INVESTMENT CASE (2019)

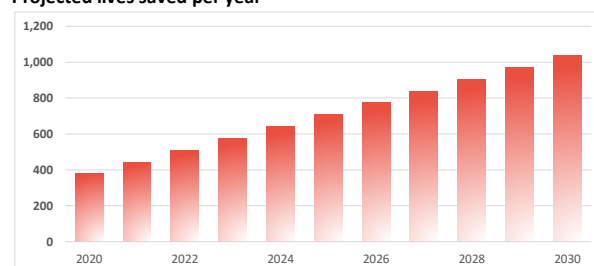
*\*Low income*

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

### Costs per year



### Projected lives saved per year



### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR	<b>WORKFORCE</b>		
Quality of mortality registration***	2007-2016	No coverage	<sup>a</sup> per 10,000 cancer patients Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	0.0	# of radiation oncologist <sup>a</sup>	2019	n/a
# of mammographs <sup>a</sup>	2020	8.7	# of medical physicist <sup>a</sup>	2019	n/a
# of CT scanners <sup>a</sup>	2020	7.5	# of surgeons <sup>a</sup>	2014	100.8
# of MRI scanners <sup>a</sup>	2020	1.2	# of radiologist <sup>a</sup>	2019	n/a
# of PET or PET/CT scanners <sup>a</sup>	2020	0.0	# of nuclear medicine physician <sup>a</sup>	2019	1.2
			# of medical & pathology lab scientists <sup>a</sup>	2016	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	1.2
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s)
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally not available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	10
Breast cancer screening program	2019	no			
Breast cancer screening program: Starting age, target population	2019	n/a			

\*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

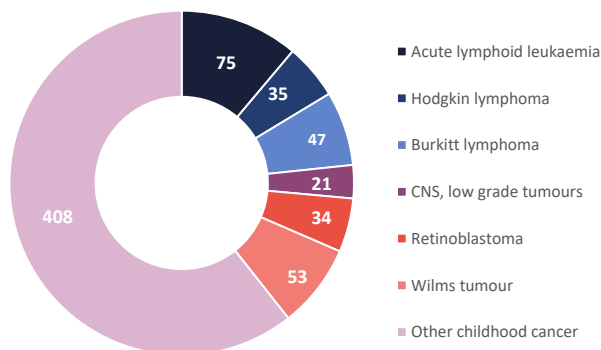
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	no
Screening programme type	2019	n/a
Screening programme method	2019	n/a
Screening participation rates	2019	n/a
Early detection programme/guidelines	2019	yes
Defined referral system	2019	no

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	673
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Annual cancer cases (0-14 years old)



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

# BURKINA FASO

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**20,321,383**

Total # cancer cases  
(2018)

**11,643**

Total # cancer deaths  
(2018)

**9,221**

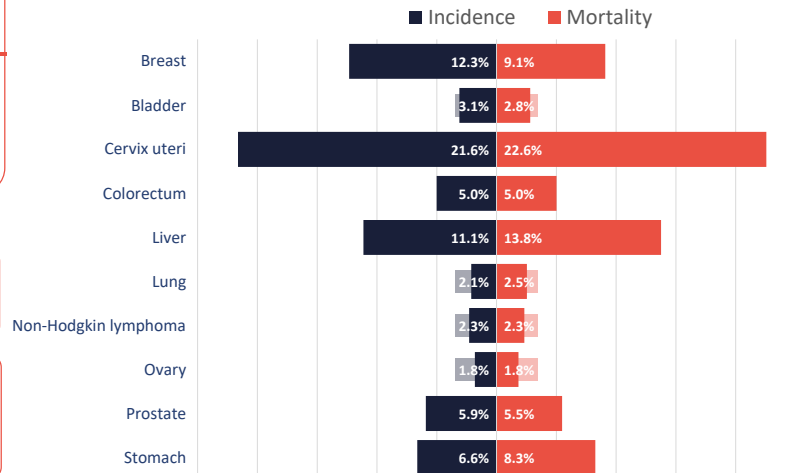
Premature deaths from NCDs (2016)

**22,567**

Cancer as % of NCD premature deaths (2016)

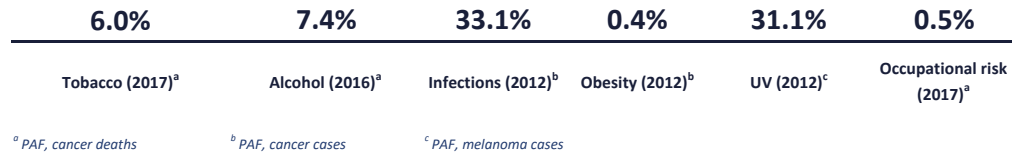
**21.3%**

### Most common cancer cases (2018)



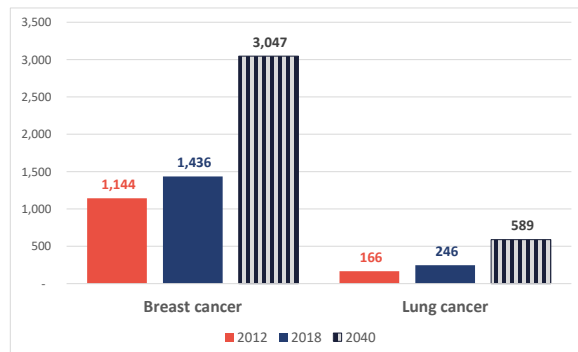
### PAFs

(population attributable fractions)

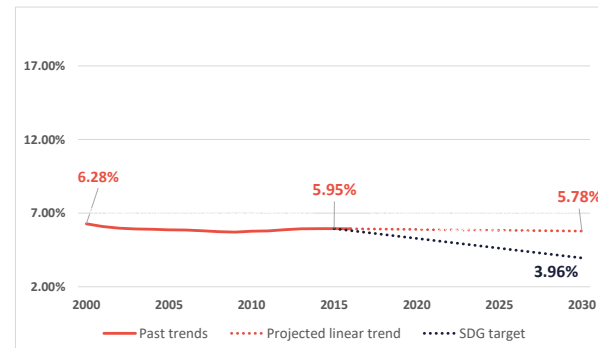


## TRENDS

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



### Probability of premature death from cancer per year

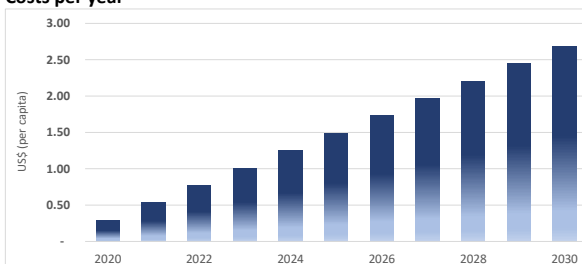


## INVESTMENT CASE (2019)

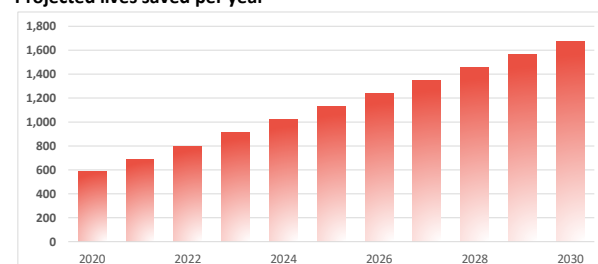
*\*Low income*

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

### Costs per year



### Projected lives saved per year



# BURKINA FASO

Cancer Country Profile 2020

## HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR
Quality of mortality registration***	2007-2016	No coverage
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	0.0
# of mammographs <sup>a</sup>	2020	22.3
# of CT scanners <sup>a</sup>	2020	16.3
# of MRI scanners <sup>a</sup>	2020	0.9
# of PET or PET/CT scanners <sup>a</sup>	2020	0.0

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	1.7
# of surgeons <sup>a</sup>	2014	30.9
# of radiologist <sup>a</sup>	2019	68.7
# of nuclear medicine physician <sup>a</sup>	2019	3.4
# of medical & pathology lab scientists <sup>a</sup>	2012	n/a

## FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	3.4
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s)
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	2	Availability of opioids* for pain management	2015-2017	1
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	25			

## GLOBAL INITIATIVES

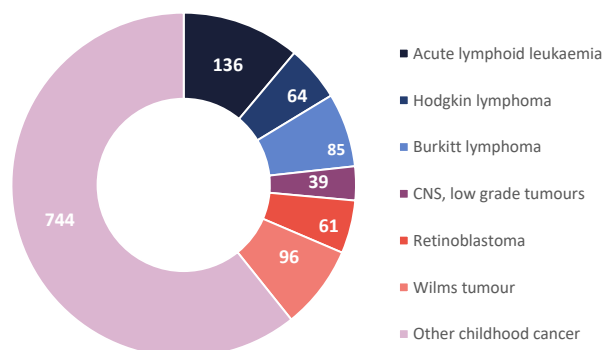
### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	visual inspection
Screening participation rates	2019	10%-50%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	1225
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

### Annual cancer cases (0-14 years old)



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



# BANGLADESH

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**163,046,173**

Total # cancer cases  
(2018)

**150,781**

Total # cancer deaths  
(2018)

**108,137**

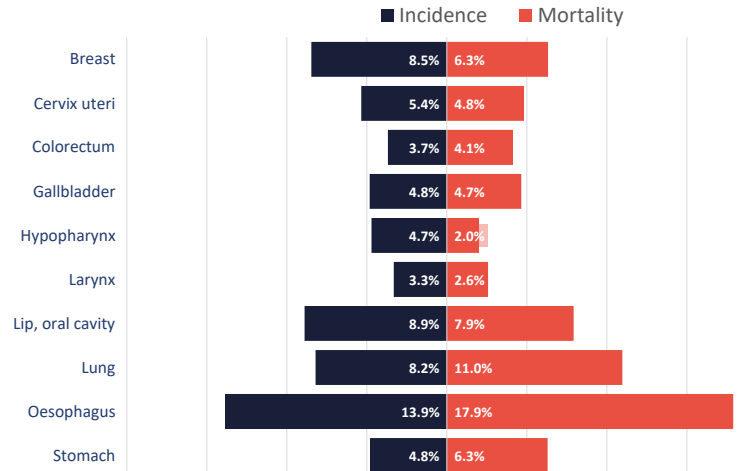
Premature deaths from NCDs (2016)

**258,368**

Cancer as % of NCD premature deaths (2016)

**25.9%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**25.4%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**1.1%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**17.1%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**0.2%**

Obesity (2012)<sup>b</sup>

**0.0%**

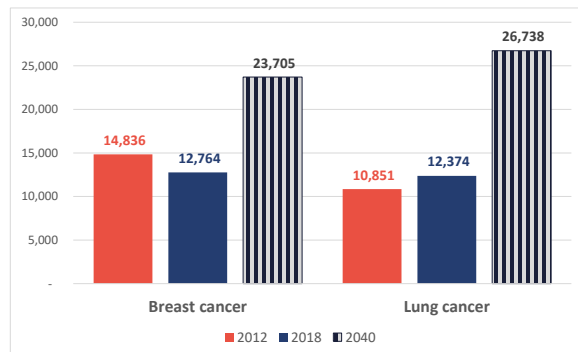
UV (2012)<sup>c</sup>

**2.3%**

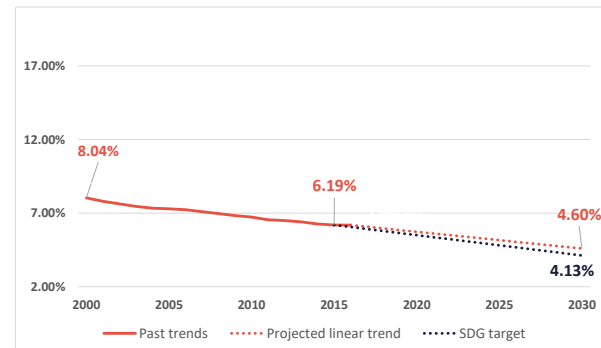
Occupational risk  
(2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

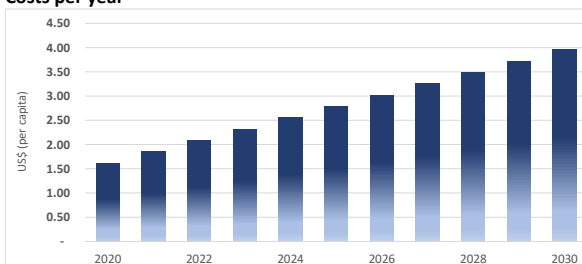


## INVESTMENT CASE (2019)

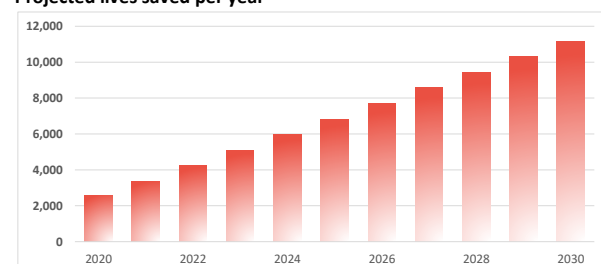
<sup>a</sup>Lower middle income

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

### Costs per year



### Projected lives saved per year



# BANGLADESH

Cancer Country Profile 2020

## HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\*

2019 Registration activity

Quality of mortality registration\*\*\* 2007-2016 No coverage

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 2.1

# of mammographs<sup>a</sup> 2020 9.9

# of CT scanners<sup>a</sup> 2020 12.1

# of MRI scanners<sup>a</sup> 2020 4.6

# of PET or PET/CT scanners<sup>a</sup> 2020 0.3

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer

2019 yes

# of radiation oncologist<sup>a</sup> 2019 1.7

# of medical physicist<sup>a</sup> 2019 21.9

# of surgeons<sup>a</sup> 2012 173.4

# of radiologist<sup>a</sup> 2019 33.2

# of nuclear medicine physician<sup>a</sup> 2019 6.6

# of medical & pathology lab scientists<sup>a</sup> 2012 n/a

## FORMULATING RESPONSE

Integrated NCD plan 2019 operational

NCCP (including cancer types) 2019 operational

MPOWER measures fully implemented and achieved 2018 1

Cancer management guidelines 2019 yes

Palliative care included in their operational, integrated NCD plan 2019 no

# of treatment services (surgery, radiotherapy, chemotherapy) 2019 2

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 0.7

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

Pathology services 2019 generally not available

Bone marrow transplantation capacity 2019 generally not available

Palliative care availability: community/home-based care 2019 generally not available

Availability of opioids\* for pain management 2015-2017 9

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

## GLOBAL INITIATIVES

### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 n/a

Cervical cancer screening 2019 yes

Screening programme type 2019 opportunistic

Screening programme method 2019 visual inspection

Screening participation rates 2019 <10%

Early detection programme/guidelines 2019 yes

Defined referral system 2019 yes

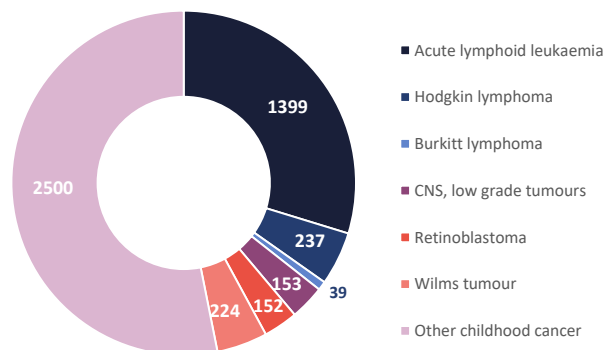
### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 4704

Early detection programme/guidelines 2019 yes

Defined referral system 2019 yes

### Annual cancer cases (0-14 years old)



\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

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

# BULGARIA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**7,000,117**

Total # cancer cases  
(2018)

**35,378**

Total # cancer deaths  
(2018)

**19,139**

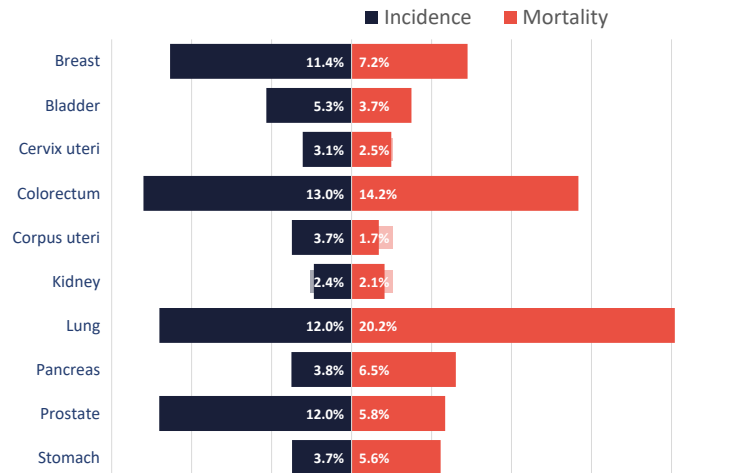
Premature deaths from NCDs (2016)

**30,007**

Cancer as % of NCD premature deaths (2016)

**32.3%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**31.8%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**9.1%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**10.5%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**6.0%**

Obesity (2012)<sup>b</sup>

**56.8%**

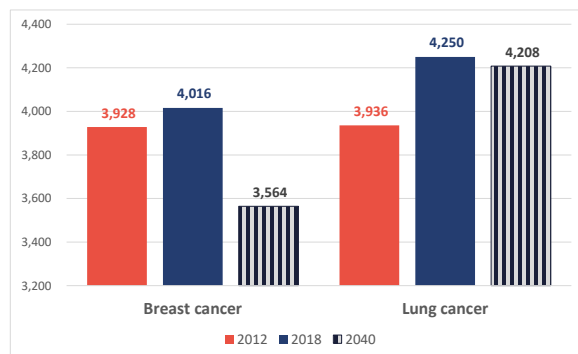
UV (2012)<sup>c</sup>

**1.3%**

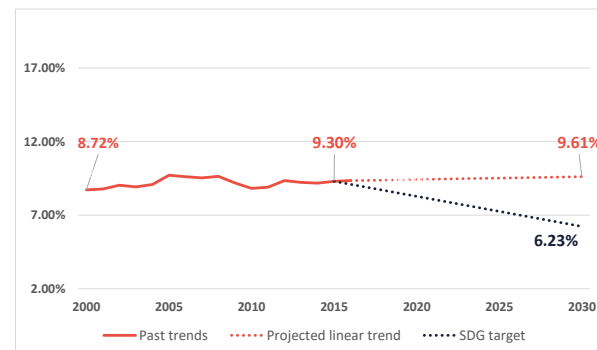
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

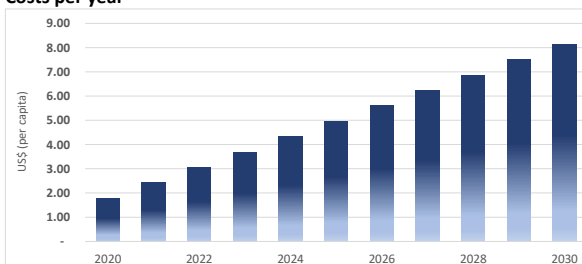


## INVESTMENT CASE (2019)

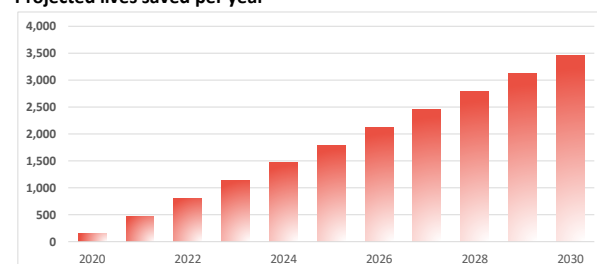
<sup>a</sup>Upper middle income

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

### Costs per year



### Projected lives saved per year



# BULGARIA

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 **High quality PBCR**

Quality of mortality registration\*\*\* 2007-2016 **Medium**

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 **9.0**

# of mammographs<sup>a</sup> 2020 **61.3**

# of CT scanners<sup>a</sup> 2020 **70.4**

# of MRI scanners<sup>a</sup> 2020 **15.8**

# of PET or PET/CT scanners<sup>a</sup> 2020 **1.7**

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 **yes**

# of radiation oncologist<sup>a</sup> 2019 **13.3**

# of medical physicist<sup>a</sup> 2019 **23.7**

# of surgeons<sup>a</sup> 2013 **1656.1**

# of radiologist<sup>a</sup> 2019 **141.3**

# of nuclear medicine physician<sup>a</sup> 2019 **14.7**

# of medical & pathology lab scientists<sup>a</sup> n/a **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 **no**

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

Breast cancer screening program 2019 **yes**

Breast cancer screening program: Starting age, target population 2019 **40**

# Public cancer centres per 10,000 cancer patients 2019 **9.9**

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 available**

Palliative care availability: community/home-based care 2019 **generally not available**

Availability of opioids\* for pain management 2015-2017 **607**

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

#### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 **5.3**

Cervical cancer screening 2019 **yes**

Screening programme type 2019 **organised**

Screening programme method 2019 **PAP smear**

Screening participation rates 2019 **10%-50%**

Early detection programme/guidelines 2019 **yes**

Defined referral system 2019 **yes**

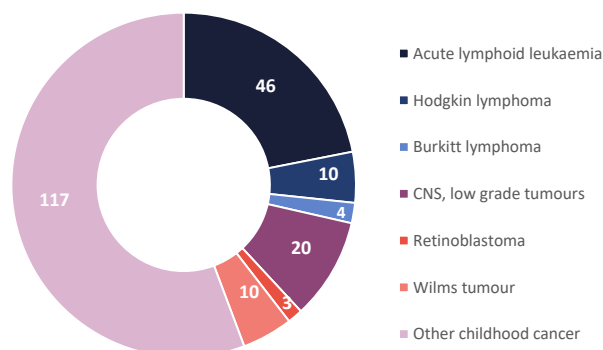
#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 **210**

Early detection programme/guidelines 2019 **don't know**

Defined referral system 2019 **yes**

#### Annual cancer cases (0-14 years old)



# BAHRAIN

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**1,641,164**

Total # cancer cases (2018)

**1,048**

Total # cancer deaths (2018)

**603**

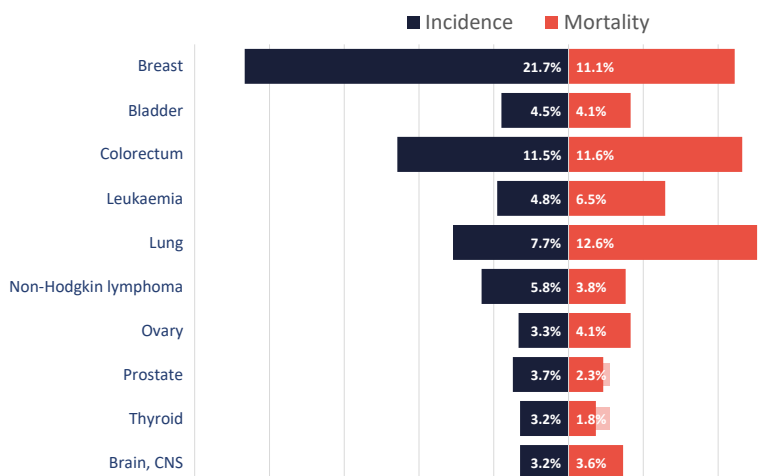
Premature deaths from NCDs (2016)

**1,081**

Cancer as % of NCD premature deaths (2016)

**27.7%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**15.9%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**2.1%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**9.7%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**5.2%**

Obesity (2012)<sup>b</sup>

**n/a**

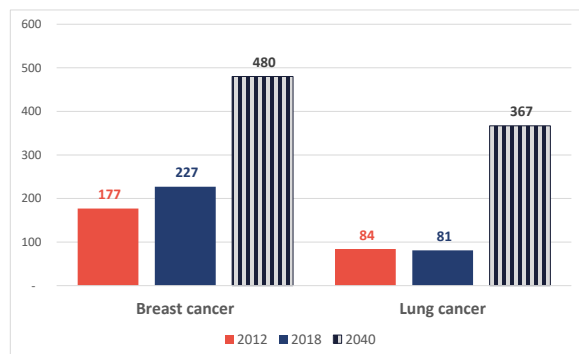
UV (2012)<sup>c</sup>

**3.6%**

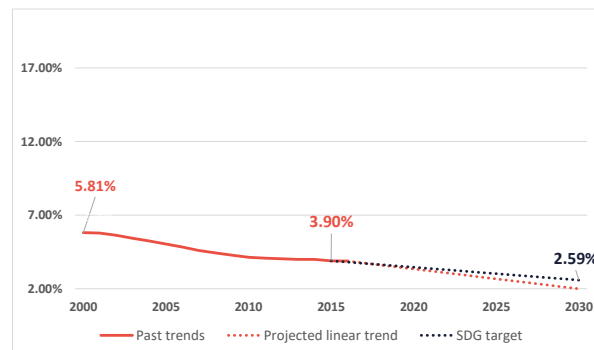
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

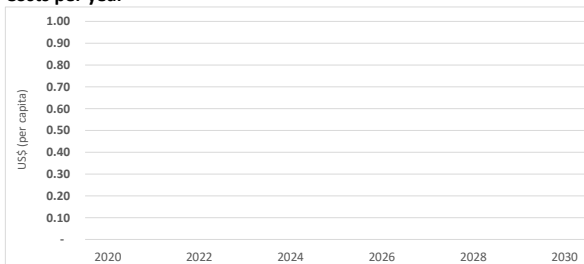


## INVESTMENT CASE (2019)

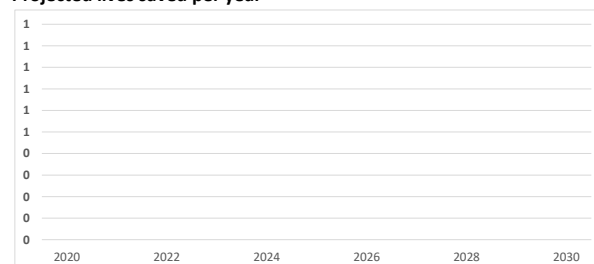
*\*High income*

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

Costs per year



Projected lives saved per year



# BAHRAIN

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR
Quality of mortality registration***	2007-2016	Low
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	19.1
# of mammographs <sup>a</sup>	2020	9.5
# of CT scanners <sup>a</sup>	2020	162.2
# of MRI scanners <sup>a</sup>	2020	133.6
# of PET or PET/CT scanners <sup>a</sup>	2020	9.5

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	286.3
# of surgeons <sup>a</sup>	2012	1917.9
# of radiologist <sup>a</sup>	2019	n/a
# of nuclear medicine physician <sup>a</sup>	2019	47.7
# of medical & pathology lab scientists <sup>a</sup>	2015	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	19.1
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s)
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	298
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	40			

### GLOBAL INITIATIVES

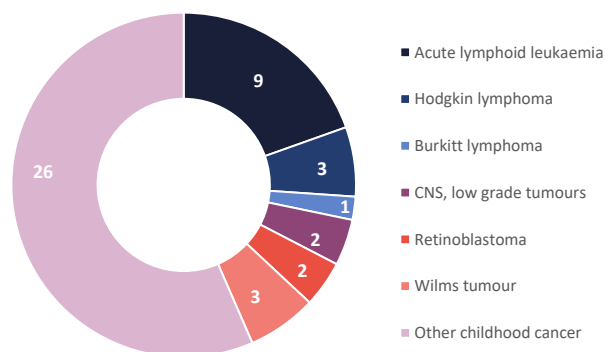
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
Screening programme method	2019	PAP smear
Screening participation rates	2019	<10%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	46
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Annual cancer cases (0-14 years old)



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

# BAHAMAS

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**389,486**

Total # cancer cases  
(2018)

**933**

Total # cancer deaths  
(2018)

**482**

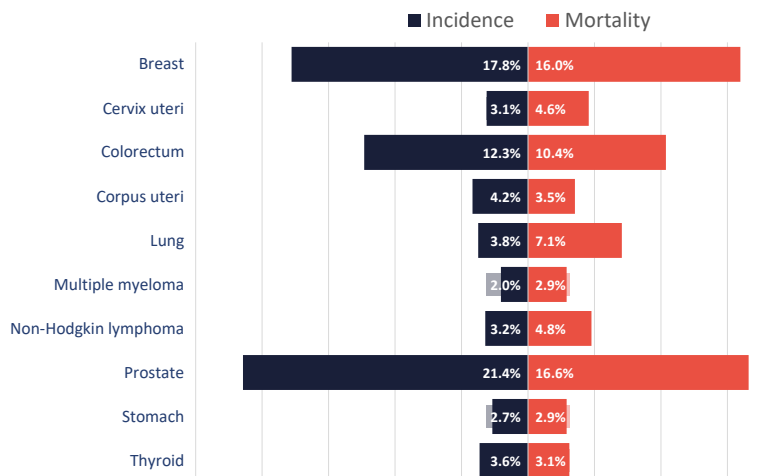
Premature deaths from NCDs (2016)

**747**

Cancer as % of NCD premature deaths (2016)

**36.2%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

n/a

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

5.2%

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

10.0%

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

6.3%

Obesity (2012)<sup>b</sup>

n/a

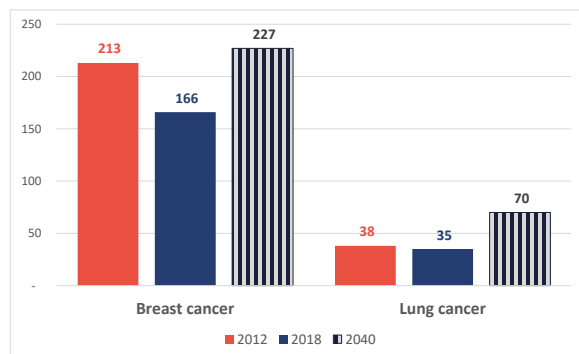
UV (2012)<sup>c</sup>

1.4%

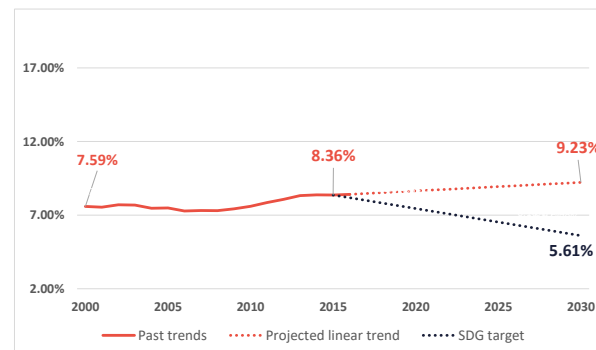
Occupational risk  
(2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

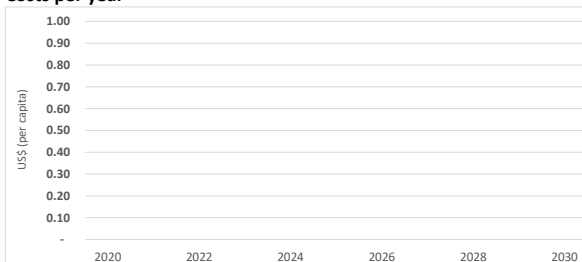


## INVESTMENT CASE (2019)

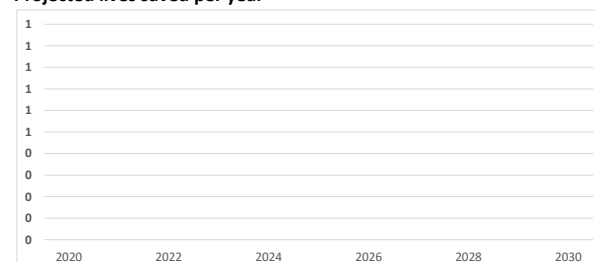
\*High income

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR
Quality of mortality registration***	2007-2016	High
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	10.7
# of mammographs <sup>a</sup>	2020	64.3
# of CT scanners <sup>a</sup>	2020	53.6
# of MRI scanners <sup>a</sup>	2020	21.4
# of PET or PET/CT scanners <sup>a</sup>	2020	0.0

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	no
# of radiation oncologist <sup>a</sup>	2019	16.1
# of medical physicist <sup>a</sup>	2019	n/a
# of surgeons <sup>a</sup>	n/a	n/a
# of radiologist <sup>a</sup>	2019	64.3
# of nuclear medicine physician <sup>a</sup>	2019	10.7
# of medical & pathology lab scientists <sup>a</sup>	2011	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	21.4
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	don't know
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	548
Breast cancer screening program	2019	no	<i>*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	n/a			

### GLOBAL INITIATIVES

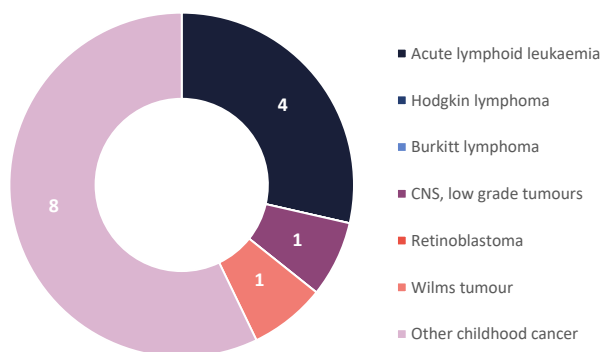
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	0
Cervical cancer screening	2019	no
Screening programme type	2019	n/a
Screening programme method	2019	n/a
Screening participation rates	2019	n/a
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	14
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Annual cancer cases (0-14 years old)





# BOSNIA AND HERZEGOVINA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**3,300,998**

Total # cancer cases  
(2018)

**14,385**

Total # cancer deaths  
(2018)

**9,012**

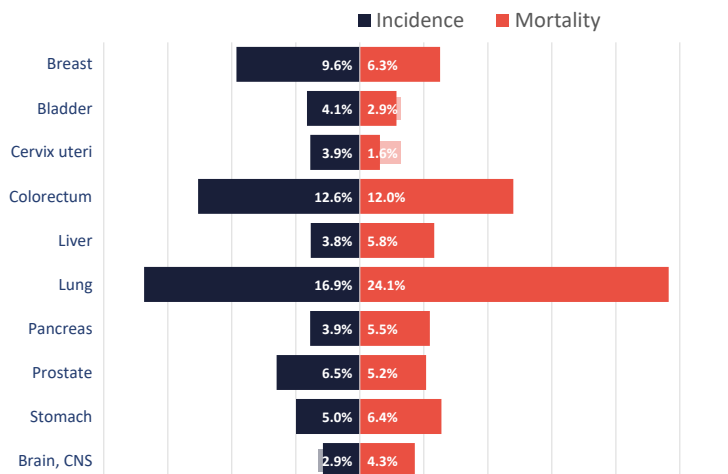
Premature deaths from NCDs (2016)

**10,022**

Cancer as % of NCD premature deaths (2016)

**35.6%**

## Most common cancer cases (2018)



## PAFs

(population attributable fractions)

**34.5%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**6.9%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**11.2%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**5.7%**

Obesity (2012)<sup>b</sup>

**45.4%**

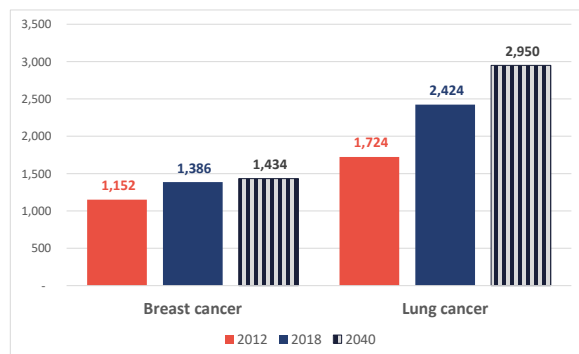
UV (2012)<sup>c</sup>

**2.1%**

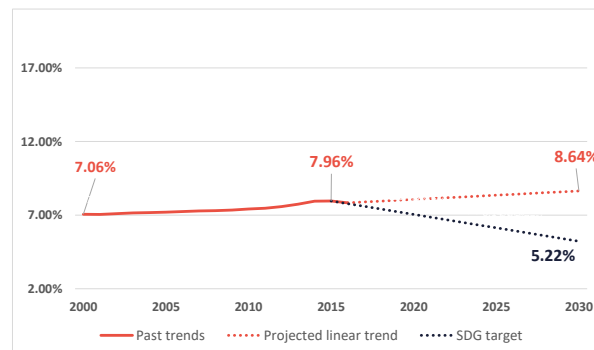
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

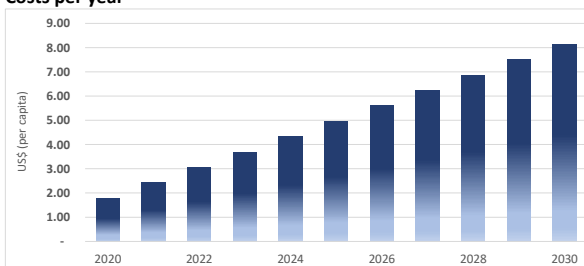


## INVESTMENT CASE (2019)

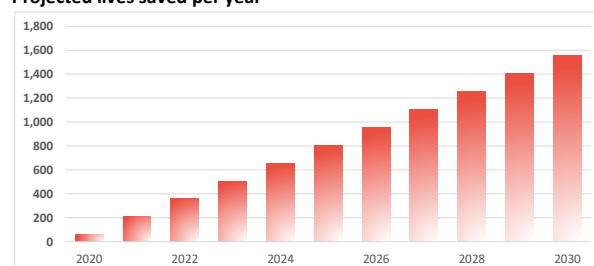
<sup>a</sup>Upper middle income

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

Costs per year



Projected lives saved per year



# BOSNIA AND HERZEGOVINA

Cancer Country Profile 2020

## HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\*

2019 Registration activity

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

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 7.0

# of mammographs<sup>a</sup> 2020 61.2

# of CT scanners<sup>a</sup> 2020 43.8

# of MRI scanners<sup>a</sup> 2020 20.2

# of PET or PET/CT scanners<sup>a</sup> 2020 1.4

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer

2019 yes

# of radiation oncologist<sup>a</sup> 2019 n/a

# of medical physicist<sup>a</sup> 2019 11.8

# of surgeons<sup>a</sup> 2013 191.2

# of radiologist<sup>a</sup> 2019 131.4

# of nuclear medicine physician<sup>a</sup> 2019 19.5

# of medical & pathology lab scientists<sup>a</sup> n/a n/a

## FORMULATING RESPONSE

Integrated NCD plan 2019 operational

NCCP (including cancer types) 2019 operational

MPOWER measures fully implemented and achieved 2018 1

Cancer management guidelines 2019 no

Palliative care included in their operational, integrated NCD plan 2019 no

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

Breast cancer screening program 2019 yes

Breast cancer screening program: Starting age, target population 2019 50

# Public cancer centres per 10,000 cancer patients 2019 16.0

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

Pathology services 2019 generally available

Bone marrow transplantation capacity 2019 generally available

Palliative care availability: community/home-based care 2019 generally not available

Availability of opioids\* for pain management 2015-2017 606

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

## GLOBAL INITIATIVES

### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 n/a

Cervical cancer screening 2019 yes

Screening programme type 2019 organised

Screening programme method 2019 PAP smear

Screening participation rates 2019 don't know

Early detection programme/guidelines 2019 yes

Defined referral system 2019 yes

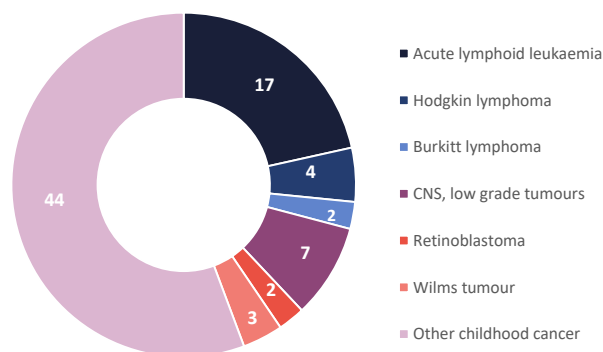
### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 79

Early detection programme/guidelines 2019 yes

Defined referral system 2019 no

### Annual cancer cases (0-14 years old)



\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

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

# BELARUS

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**9,452,409**

Total # cancer cases  
(2018)

**42,287**

Total # cancer deaths  
(2018)

**19,095**

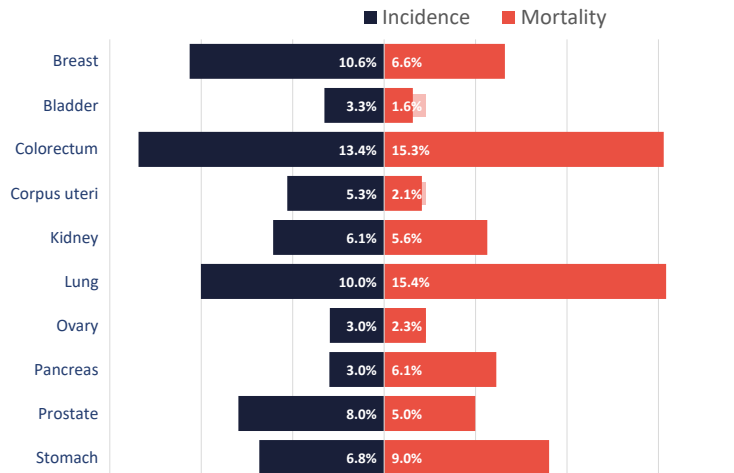
Premature deaths from NCDs (2016)

**37,017**

Cancer as % of NCD premature deaths (2016)

**29.2%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**29.5%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**11.2%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**12.1%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**5.9%**

Obesity (2012)<sup>b</sup>

**63.0%**

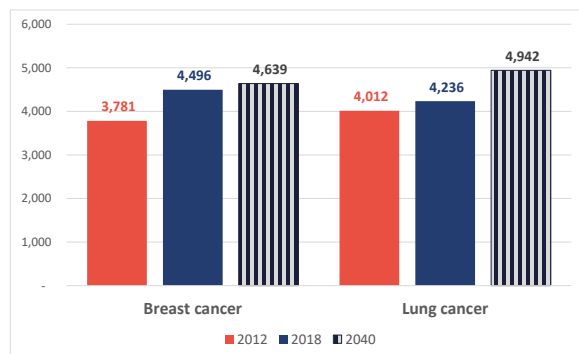
UV (2012)<sup>c</sup>

**1.5%**

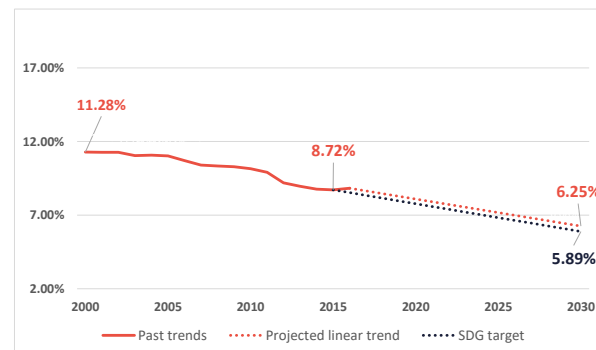
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

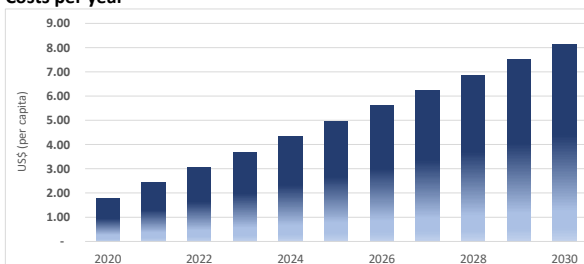


## INVESTMENT CASE (2019)

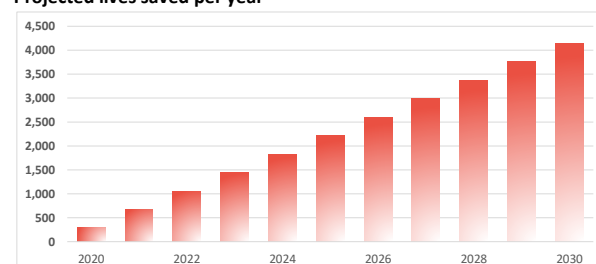
<sup>a</sup>Upper middle income

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

Costs per year



Projected lives saved per year



# BELARUS

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 **High quality PBCR**

Quality of mortality registration\*\*\* 2007-2016 **Medium**

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 **7.6**

# of mammographs<sup>a</sup> 2020 **12.1**

# of CT scanners<sup>a</sup> 2020 **19.6**

# of MRI scanners<sup>a</sup> 2020 **10.6**

# of PET or PET/CT scanners<sup>a</sup> 2020 **0.7**

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 **yes**

# of radiation oncologist<sup>a</sup> 2019 **27.9**

# of medical physicist<sup>a</sup> 2019 **n/a**

# of surgeons<sup>a</sup> 2013 **1520.1**

# of radiologist<sup>a</sup> 2019 **161.3**

# of nuclear medicine physician<sup>a</sup> 2019 **7.8**

# of medical & pathology lab scientists<sup>a</sup> n/a **n/a**

### FORMULATING RESPONSE

Integrated NCD plan 2019 **operational**

NCCP (including cancer types) 2019 **n/a**

MPOWER measures fully implemented and achieved 2018 **1**

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 **50**

# Public cancer centres per 10,000 cancer patients 2019 **2.6**

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

Pathology services 2019 **generally available**

Bone marrow transplantation capacity 2019 **generally available**

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

Availability of opioids\* for pain management 2015-2017 **359**

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

#### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 **n/a**

Cervical cancer screening 2019 **yes**

Screening programme type 2019 **organised**

Screening programme method 2019 **visual inspection**

Screening participation rates 2019 **>50% and <70%**

Early detection programme/guidelines 2019 **yes**

Defined referral system 2019 **yes**

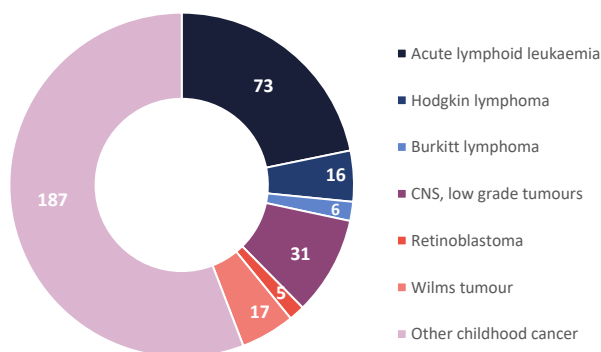
#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 **335**

Early detection programme/guidelines 2019 **yes**

Defined referral system 2019 **yes**

#### Annual cancer cases (0-14 years old)



## BURDEN OF CANCER

Total population (2019)

**390,351**

Total # cancer cases  
(2018)

**358**

Total # cancer deaths  
(2018)

**201**

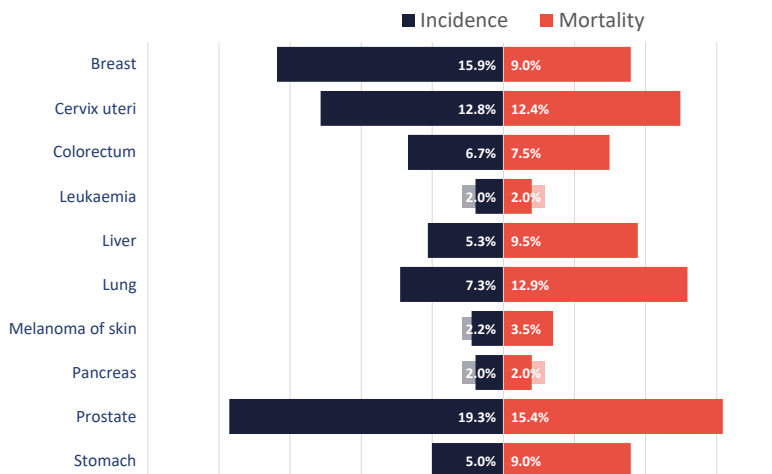
Premature deaths from NCDs (2016)

**595**

Cancer as % of NCD premature deaths (2016)

**24.4%**

## Most common cancer cases (2018)



## PAFs

(population attributable fractions)

**14.1%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**5.3%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**19.5%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**5.7%**

Obesity (2012)<sup>b</sup>

**n/a**

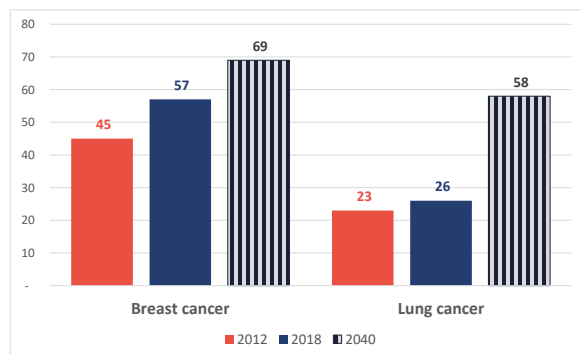
UV (2012)<sup>c</sup>

**2.6%**

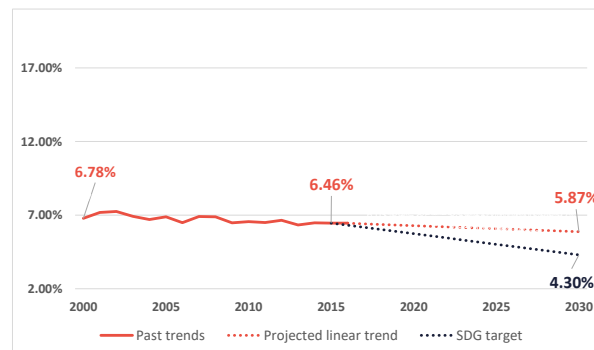
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

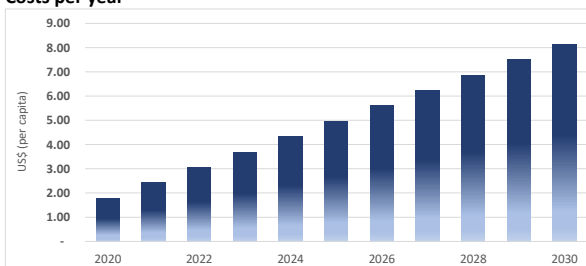


## INVESTMENT CASE (2019)

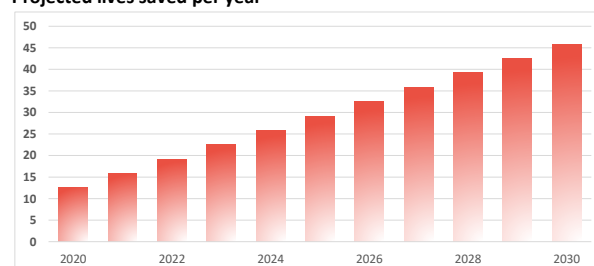
<sup>a</sup>Upper middle income

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\*

2019 **Registration activity**

Quality of mortality registration\*\*\* 2007-2016 **Medium**

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 **0.0**

# of mammographs<sup>a</sup> 2020 **111.7**

# of CT scanners<sup>a</sup> 2020 **139.7**

# of MRI scanners<sup>a</sup> 2020 **55.9**

# of PET or PET/CT scanners<sup>a</sup> 2020 **0.0**

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer

2019 **n/a**

# of radiation oncologist<sup>a</sup> 2019 **0.0**

# of medical physicist<sup>a</sup> 2019 **0.0**

# of surgeons<sup>a</sup> 2014 **642.5**

# of radiologist<sup>a</sup> 2019 **335.2**

# of nuclear medicine physician<sup>a</sup> 2019 **0.0**

# of medical & pathology lab scientists<sup>a</sup> n/a **n/a**

### FORMULATING RESPONSE

Integrated NCD plan 2019 **operational**

NCCP (including cancer types) 2019 **under development**

MPOWER measures fully implemented and achieved 2018 **0**

Cancer management guidelines 2019 **yes**

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

# of treatment services (surgery, radiotherapy, chemotherapy) 2019 **0**

Breast cancer screening program 2019 **no**

Breast cancer screening program: Starting age, target population 2019 **n/a**

# Public cancer centres per 10,000 cancer patients 2019 **-**

Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood) 2019 **0 cancer(s)**

Pathology services 2019 **generally not available**

Bone marrow transplantation capacity 2019 **generally not available**

Palliative care availability: community/home-based care 2019 **generally not available**

Availability of opioids\* for pain management 2015-2017 **58**

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

#### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 **63.5**

Cervical cancer screening 2019 **yes**

Screening programme type 2019 **opportunistic**

Screening programme method 2019 **visual inspection**

Screening participation rates 2019 **<10%**

Early detection programme/guidelines 2019 **no**

Defined referral system 2019 **no**

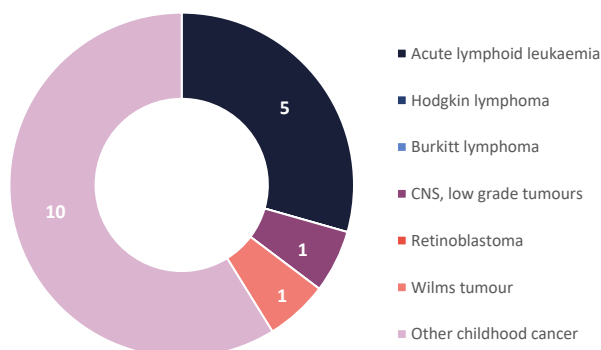
#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 **17**

Early detection programme/guidelines 2019 **no**

Defined referral system 2019 **no**

#### Annual cancer cases (0-14 years old)



\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

# BOLIVIA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**11,513,102**

Total # cancer cases  
(2018)

**14,915**

Total # cancer deaths  
(2018)

**9,527**

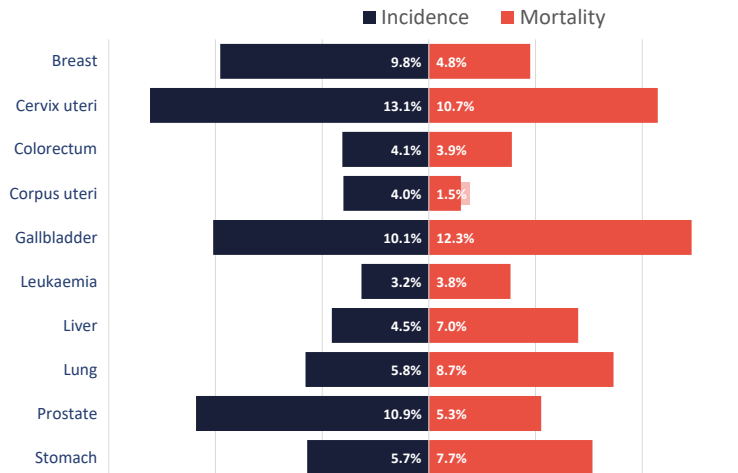
Premature deaths from NCDs (2016)

**18,697**

Cancer as % of NCD premature deaths (2016)

**20.8%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**10.5%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**2.7%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**25.8%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**n/a**

Obesity (2012)<sup>b</sup>

**n/a**

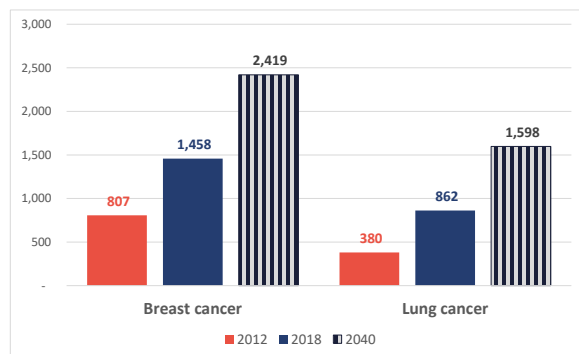
UV (2012)<sup>c</sup>

**1.9%**

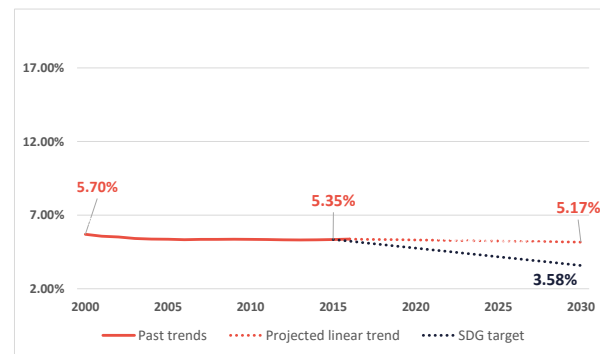
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

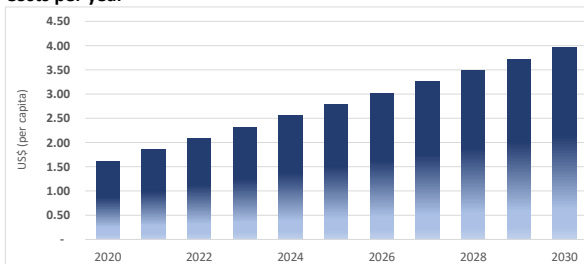


## INVESTMENT CASE (2019)

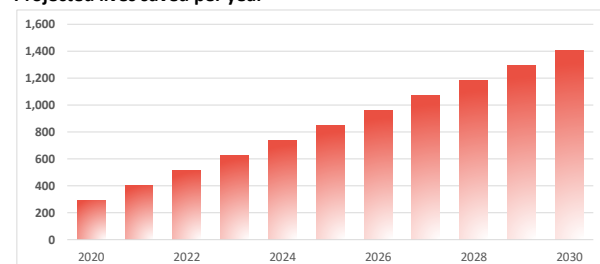
<sup>a</sup>Lower middle income

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

### Costs per year



### Projected lives saved per year



# BOLIVIA

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR
Quality of mortality registration***	2007-2016	No coverage
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	5.4
# of mammographs <sup>a</sup>	2020	29.5
# of CT scanners <sup>a</sup>	2020	40.2
# of MRI scanners <sup>a</sup>	2020	13.4
# of PET or PET/CT scanners <sup>a</sup>	2020	0.7

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	13.4
# of surgeons <sup>a</sup>	2012	1211.5
# of radiologist <sup>a</sup>	2019	111.3
# of nuclear medicine physician <sup>a</sup>	2019	8.7
# of medical & pathology lab scientists <sup>a</sup>	2011	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	n/a
NCCP (including cancer types)	2019	operational
MPOWER measures fully implemented and achieved	2018	1
Cancer management guidelines	2019	yes
Palliative care included in their operational, integrated NCD plan	2019	n/a
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3
Breast cancer screening program	2019	don't know
Breast cancer screening program: Starting age, target population	2019	n/a

# Public cancer centres per 10,000 cancer patients	2019	6.0
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
Pathology services	2019	generally available
Bone marrow transplantation capacity	2019	don't know
Palliative care availability: community/home-based care	2019	generally not available
Availability of opioids* for pain management	2015-2017	49

\*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

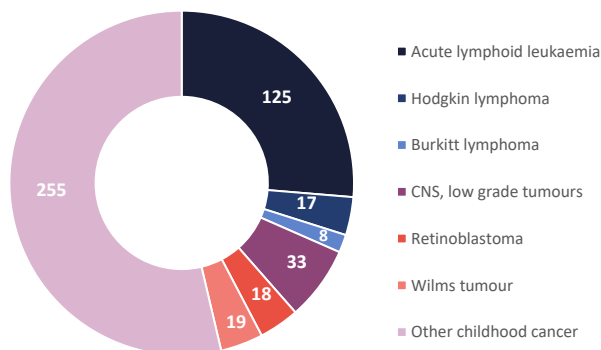
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	60.9
Cervical cancer screening	2019	don't know
Screening programme type	2019	n/a
Screening programme method	2019	n/a
Screening participation rates	2019	n/a
Early detection programme/guidelines	2019	don't know
Defined referral system	2019	don't know

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	475
Early detection programme/guidelines	2019	don't know
Defined referral system	2019	don't know

#### Annual cancer cases (0-14 years old)



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



# BRAZIL

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**211,049,519**

Total # cancer cases  
(2018)

**559,371**

Total # cancer deaths  
(2018)

**243,588**

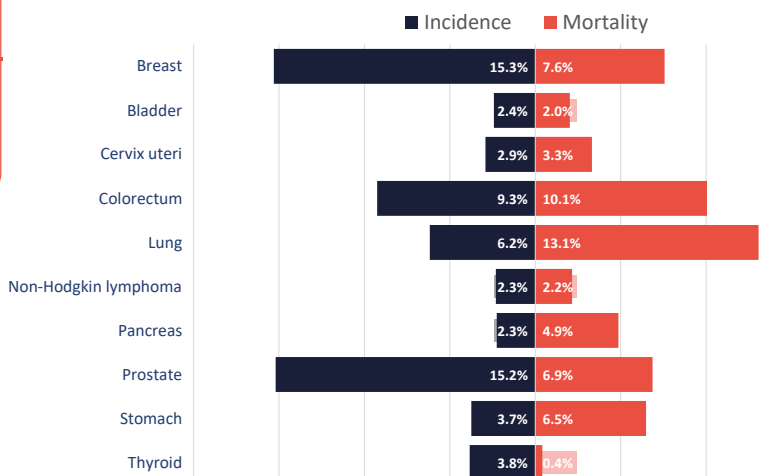
Premature deaths from NCDs (2016)

**416,222**

Cancer as % of NCD premature deaths (2016)

**30.3%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**21.2%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**8.7%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**11.1%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**3.4%**

Obesity (2012)<sup>b</sup>

**55.7%**

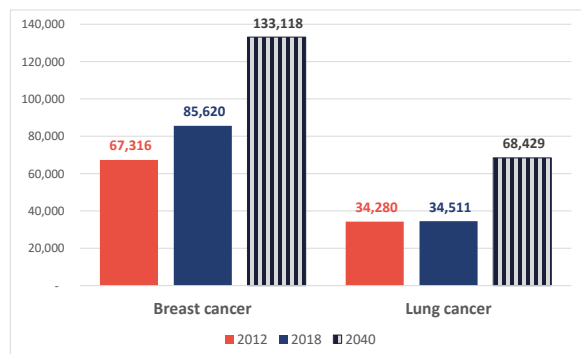
UV (2012)<sup>c</sup>

**2.4%**

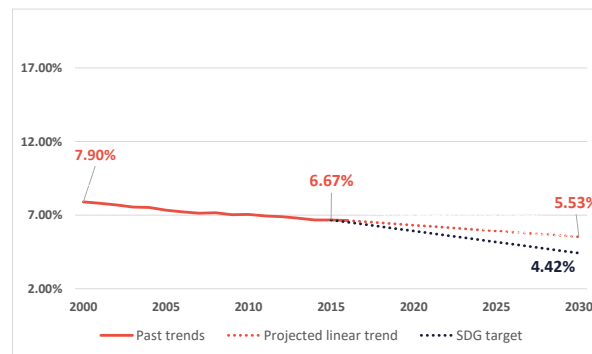
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

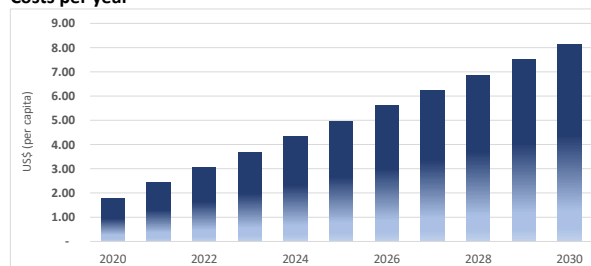


## INVESTMENT CASE (2019)

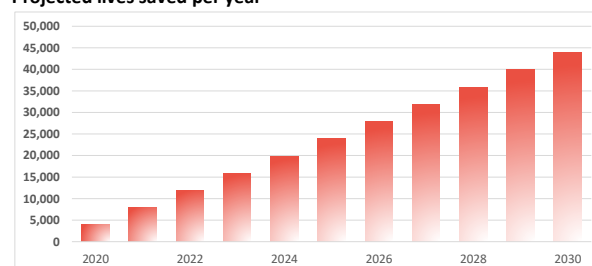
<sup>a</sup>Upper middle income

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

Costs per year



Projected lives saved per year



# BRAZIL

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR
Quality of mortality registration***	2007-2016	High
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	6.4
# of mammographs <sup>a</sup>	2020	99.9
# of CT scanners <sup>a</sup>	2020	83.3
# of MRI scanners <sup>a</sup>	2020	57.7
# of PET or PET/CT scanners <sup>a</sup>	2020	2.6

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	13.1
# of medical physicist <sup>a</sup>	2019	13.1
# of surgeons <sup>a</sup>	2013	1256.7
# of radiologist <sup>a</sup>	2019	230.0
# of nuclear medicine physician <sup>a</sup>	2019	17.1
# of medical & pathology lab scientists <sup>a</sup>	2017	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	6.0
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s)
MPOWER measures fully implemented and achieved	2018	5	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	444
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	50			

### GLOBAL INITIATIVES

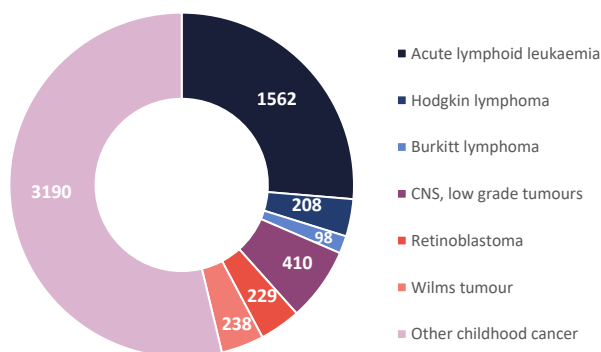
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	69.2
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	70% or more
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	5935
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Annual cancer cases (0-14 years old)



# BARBADOS

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**287,021**

Total # cancer cases  
(2018)

**1,245**

Total # cancer deaths  
(2018)

**721**

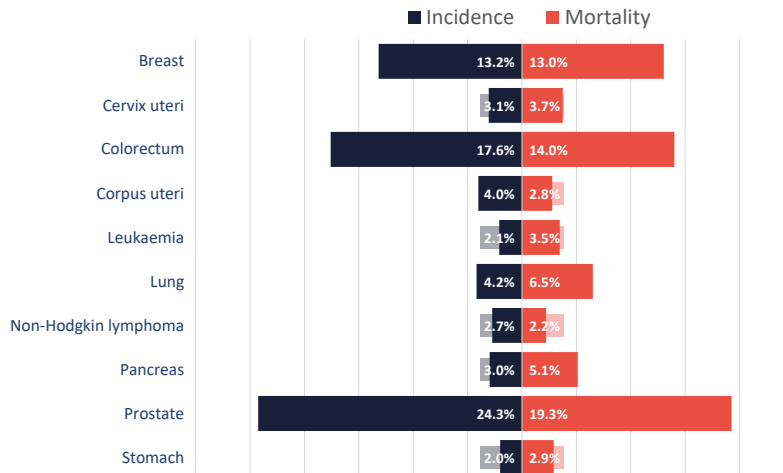
Premature deaths from NCDs (2016)

**714**

Cancer as % of NCD premature deaths (2016)

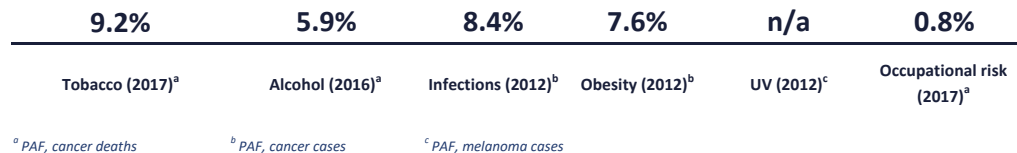
**38.9%**

### Most common cancer cases (2018)



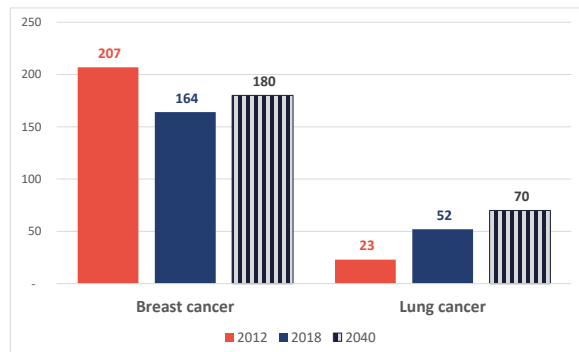
### PAFs

(population attributable fractions)

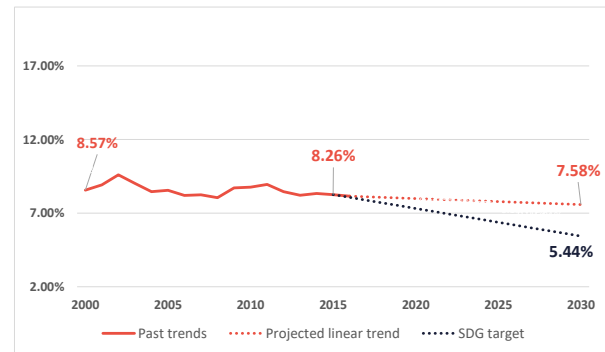


## TRENDS

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



### Probability of premature death from cancer per year

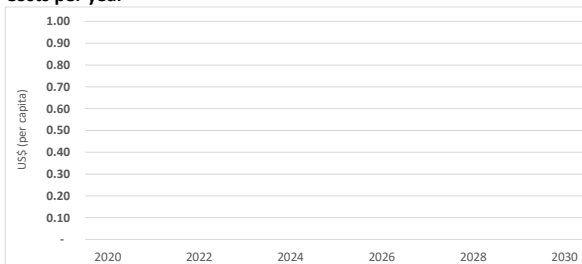


## INVESTMENT CASE (2019)

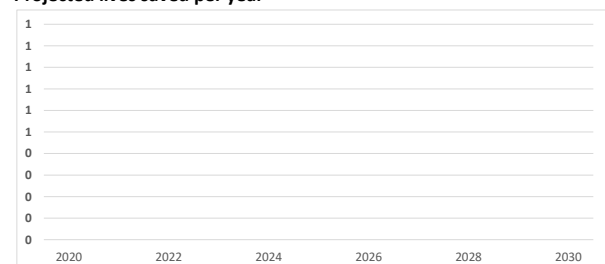
\*High income

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

### Costs per year



### Projected lives saved per year



# BARBADOS

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR
Quality of mortality registration***	2007-2016	Medium
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	8.0
# of mammographs <sup>a</sup>	2020	8.0
# of CT scanners <sup>a</sup>	2020	16.1
# of MRI scanners <sup>a</sup>	2020	0.0
# of PET or PET/CT scanners <sup>a</sup>	2020	0.0

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	8.0
# of medical physicist <sup>a</sup>	2019	n/a
# of surgeons <sup>a</sup>	2014	144.6
# of radiologist <sup>a</sup>	2019	32.1
# of nuclear medicine physician <sup>a</sup>	2019	8.0
# of medical & pathology lab scientists <sup>a</sup>	2005	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	8.0
NCCP (including cancer types)	2019	not in effect	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	1 cancer(s)
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally available
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	don't know
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	495
Breast cancer screening program	2019	no	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	n/a			

### GLOBAL INITIATIVES

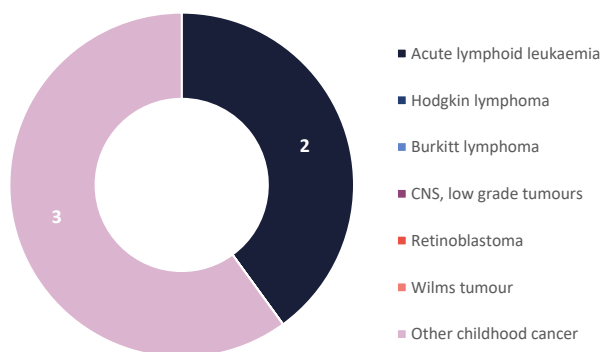
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	24.8
Cervical cancer screening	2019	no
Screening programme type	2019	n/a
Screening programme method	2019	n/a
Screening participation rates	2019	n/a
Early detection programme/guidelines	2019	yes
Defined referral system	2019	no

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	5
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Annual cancer cases (0-14 years old)



# BRUNEI DARUSSALAM

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**433,296**

Total # cancer cases  
(2018)

**908**

Total # cancer deaths  
(2018)

**380**

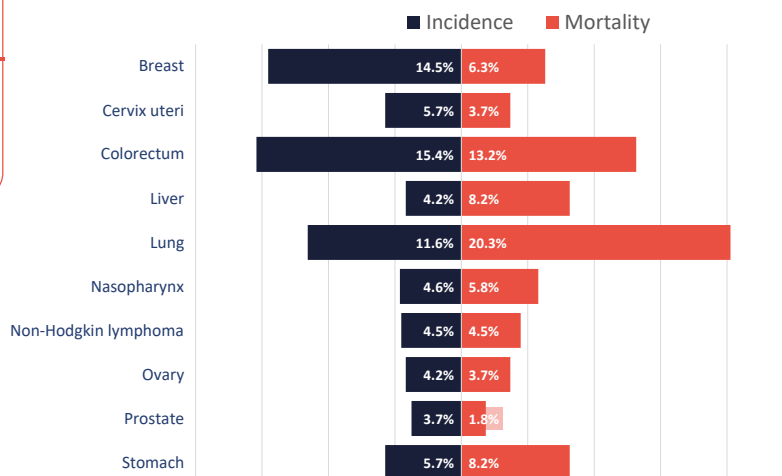
Premature deaths from NCDs (2016)

**670**

Cancer as % of NCD premature deaths (2016)

**34.7%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

n/a

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

3.4%

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

17.1%

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

2.9%

Obesity (2012)<sup>b</sup>

n/a

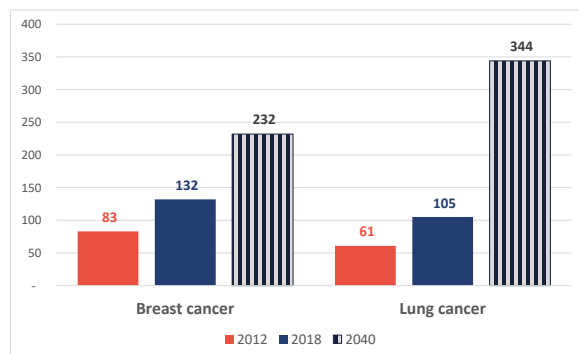
UV (2012)<sup>c</sup>

2.6%

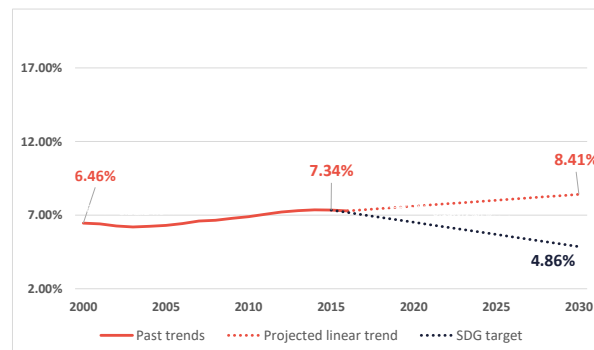
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

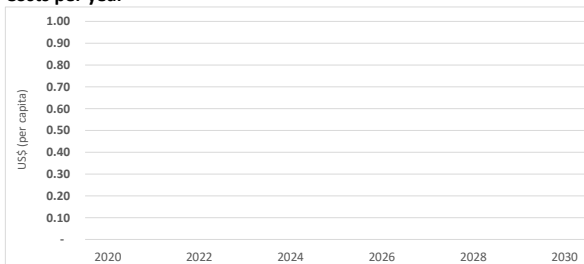


## INVESTMENT CASE (2019)

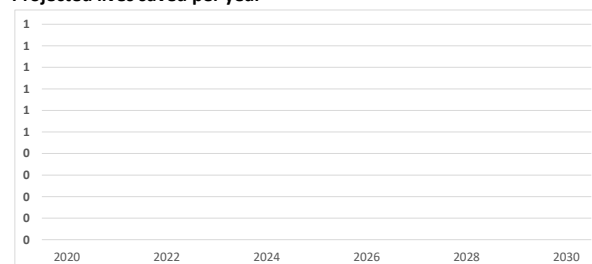
\*High income

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

Costs per year



Projected lives saved per year



# BRUNEI DARUSSALAM

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR
Quality of mortality registration***	2007-2016	High
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	22.0
# of mammographs <sup>a</sup>	2020	429.5
# of CT scanners <sup>a</sup>	2020	33.0
# of MRI scanners <sup>a</sup>	2020	11.0
# of PET or PET/CT scanners <sup>a</sup>	2020	11.0

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	33.0
# of surgeons <sup>a</sup>	n/a	n/a
# of radiologist <sup>a</sup>	2019	n/a
# of nuclear medicine physician <sup>a</sup>	2019	n/a
# of medical & pathology lab scientists <sup>a</sup>	2015	1244.5

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational
NCCP (including cancer types)	2019	n/a
MPOWER measures fully implemented and achieved	2018	2
Cancer management guidelines	2019	no
Palliative care included in their operational, integrated NCD plan	2019	yes
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3
Breast cancer screening program	2019	no
Breast cancer screening program: Starting age, target population	2019	n/a

# Public cancer centres per 10,000 cancer patients	2019	11.0
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	don't know
Availability of opioids* for pain management	2015-2017	467

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

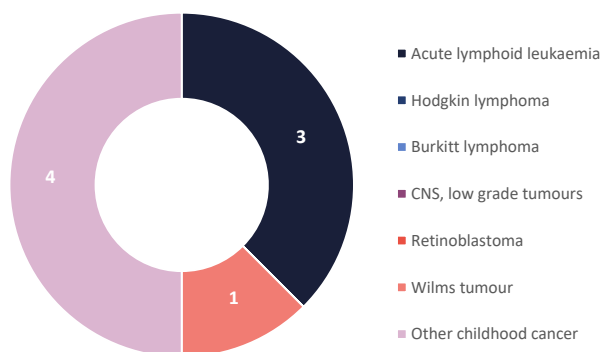
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	88.6
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	8
Early detection programme/guidelines	2019	no
Defined referral system	2019	yes

#### Annual cancer cases (0-14 years old)



# BHUTAN

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**763,094**

Total # cancer cases  
(2018)

**585**

Total # cancer deaths  
(2018)

**490**

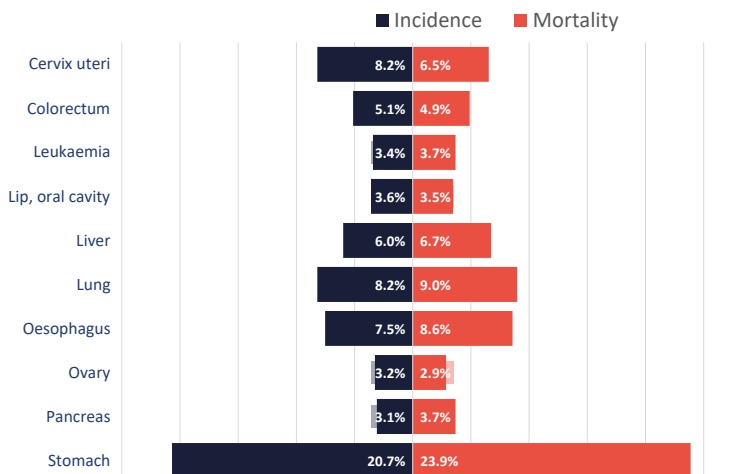
Premature deaths from NCDs (2016)

**1,744**

Cancer as % of NCD premature deaths (2016)

**16.2%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**16.3%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**2.3%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**29.8%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**0.8%**

Obesity (2012)<sup>b</sup>

**n/a**

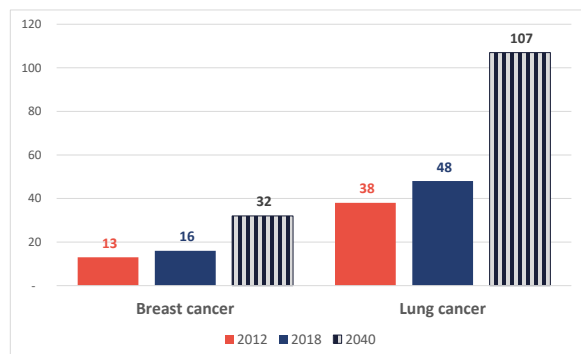
UV (2012)<sup>c</sup>

**1.2%**

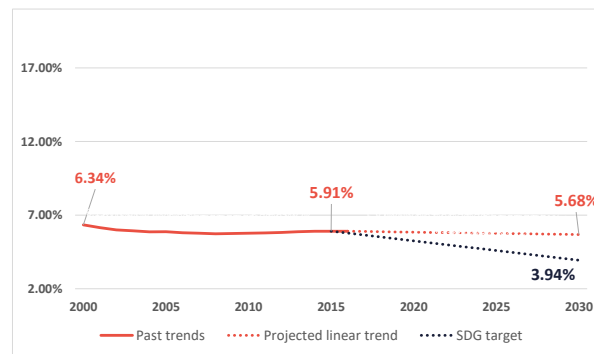
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

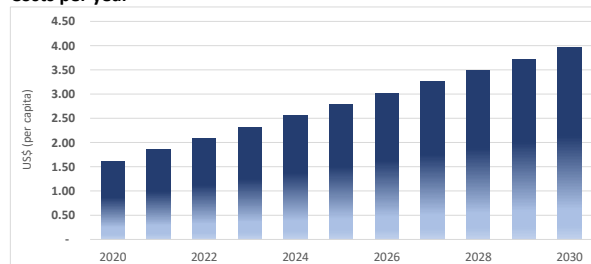


## INVESTMENT CASE (2019)

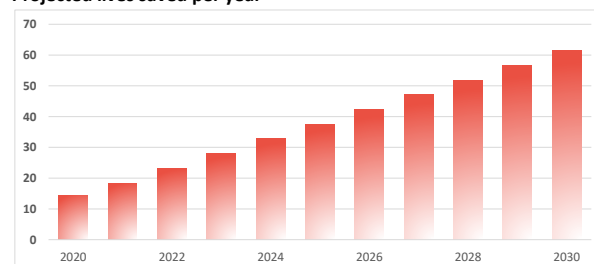
*\*Lower middle income*

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR
Quality of mortality registration***	2007-2016	No coverage
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	17.1
# of mammographs <sup>a</sup>	2020	17.1
# of CT scanners <sup>a</sup>	2020	34.2
# of MRI scanners <sup>a</sup>	2020	17.1
# of PET or PET/CT scanners <sup>a</sup>	2020	0.0

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	no
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	0.0
# of surgeons <sup>a</sup>	2014	102.6
# of radiologist <sup>a</sup>	2019	51.3
# of nuclear medicine physician <sup>a</sup>	2019	0.0
# of medical & pathology lab scientists <sup>a</sup>	2017	1076.9

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	17.1
NCCP (including cancer types)	2019	under development	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	15
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	15			

### GLOBAL INITIATIVES

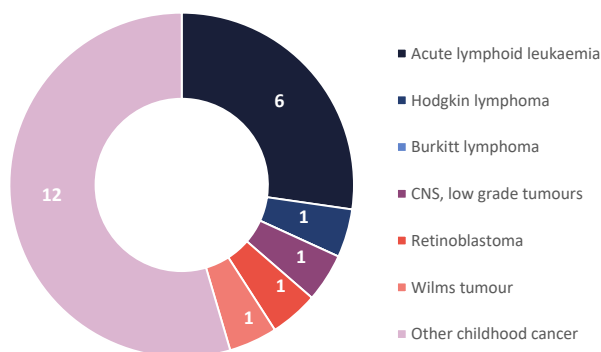
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	89.6
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
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	22
Early detection programme/guidelines	2019	don't know
Defined referral system	2019	don't know

#### Annual cancer cases (0-14 years old)



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



# BOTSWANA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**2,303,703**

Total # cancer cases  
(2018)

**1,953**

Total # cancer deaths  
(2018)

**1,064**

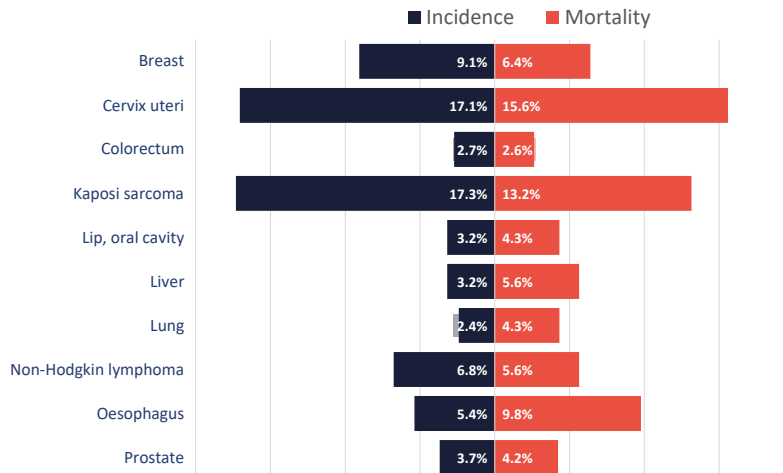
Premature deaths from NCDs (2016)

**3,198**

Cancer as % of NCD premature deaths (2016)

**22.2%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**14.6%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**10.6%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**30.4%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**2.0%**

Obesity (2012)<sup>b</sup>

**45.1%**

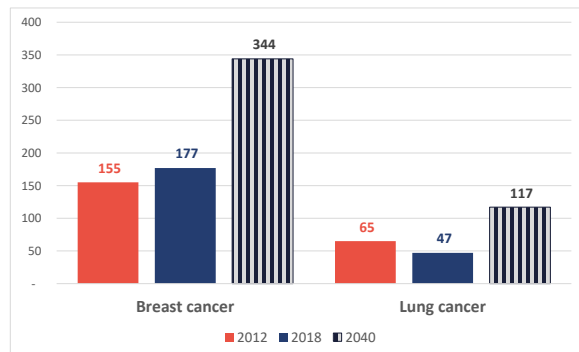
UV (2012)<sup>c</sup>

**2.4%**

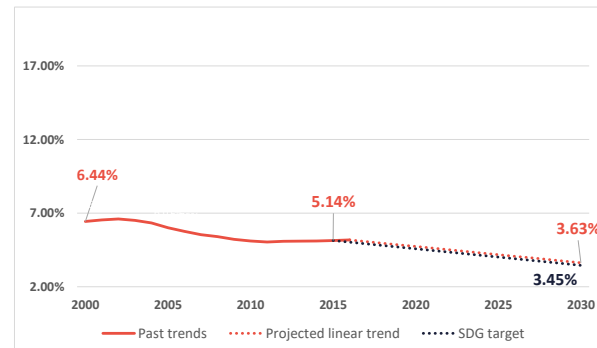
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

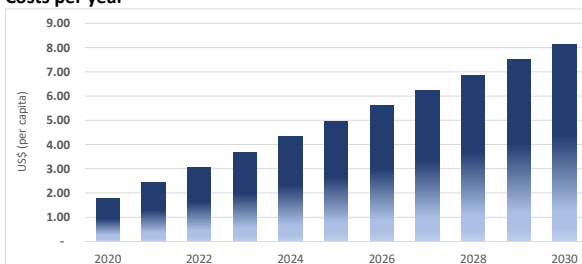


## INVESTMENT CASE (2019)

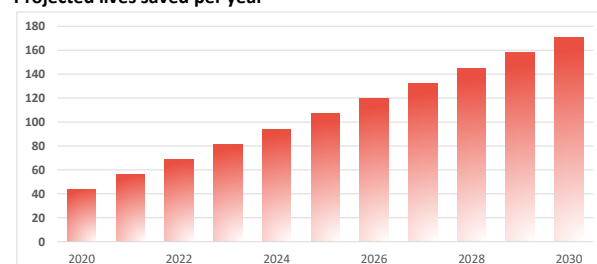
<sup>a</sup>Upper middle income

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

### Costs per year



### Projected lives saved per year



# BOTSWANA

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR
Quality of mortality registration***	2007-2016	No coverage
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	5.1
# of mammographs <sup>a</sup>	2020	10.2
# of CT scanners <sup>a</sup>	2020	10.2
# of MRI scanners <sup>a</sup>	2020	5.1
# of PET or PET/CT scanners <sup>a</sup>	2020	0.0

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	0.0
# of surgeons <sup>a</sup>	2014	204.8
# of radiologist <sup>a</sup>	2019	n/a
# of nuclear medicine physician <sup>a</sup>	2019	0.0
# of medical & pathology lab scientists <sup>a</sup>	2009	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	10.2
NCCP (including cancer types)	2019	under development	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	don't know
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	67
Breast cancer screening program	2019	no	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	n/a			

### GLOBAL INITIATIVES

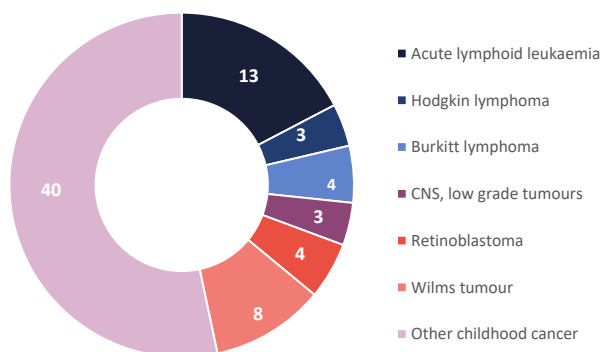
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	82.2
Cervical cancer screening	2019	no
Screening programme type	2019	n/a
Screening programme method	2019	n/a
Screening participation rates	2019	n/a
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	75
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Annual cancer cases (0-14 years old)



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

# CENTRAL AFRICAN REPUBLIC

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**4,745,179**

Total # cancer cases  
(2018)

**2,618**

Total # cancer deaths  
(2018)

**2,122**

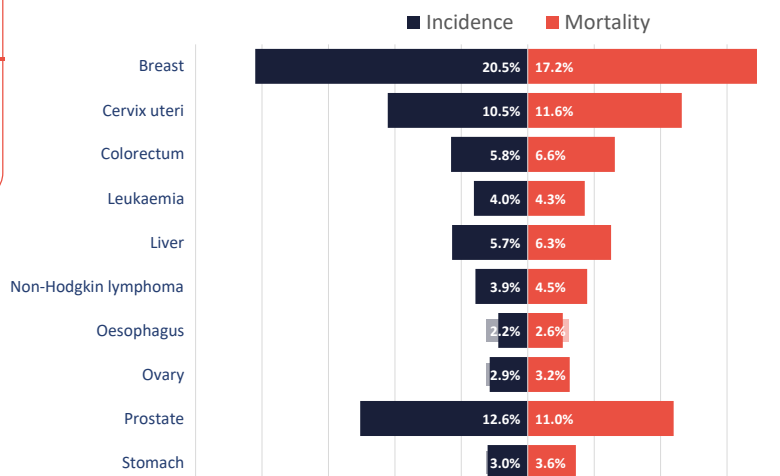
Premature deaths from NCDs (2016)

**6,649**

Cancer as % of NCD premature deaths (2016)

**23.0%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**11.4%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**4.0%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**25.5%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**0.7%**

Obesity (2012)<sup>b</sup>

**27.1%**

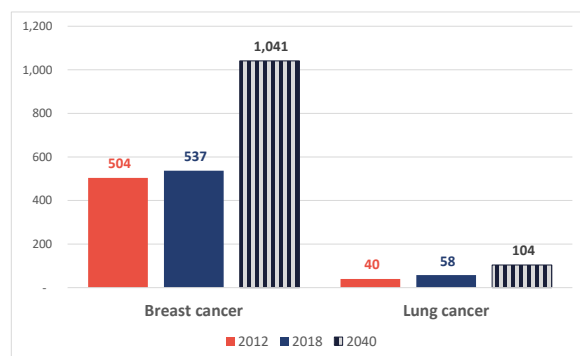
UV (2012)<sup>c</sup>

**0.9%**

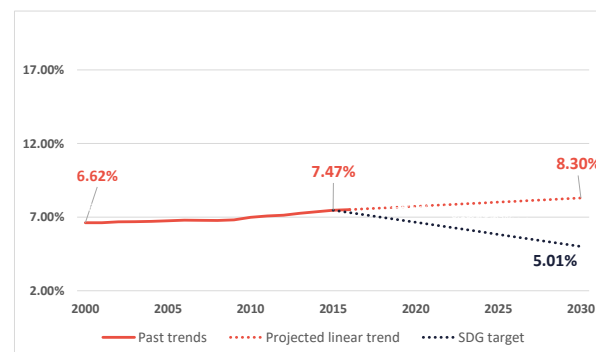
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

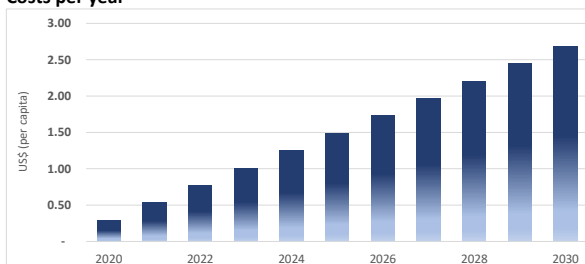


## INVESTMENT CASE (2019)

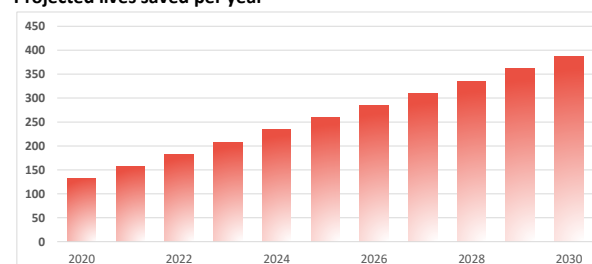
<sup>a</sup>Low income

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

### Costs per year



### Projected lives saved per year



# CENTRAL AFRICAN REPUBLIC

Cancer Country Profile 2020

## HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 No information

Quality of mortality registration\*\*\* 2007-2016 No coverage

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 0.0

# of mammographs<sup>a</sup> 2020 3.8

# of CT scanners<sup>a</sup> 2020 3.8

# of MRI scanners<sup>a</sup> 2020 0.0

# of PET or PET/CT scanners<sup>a</sup> 2020 0.0

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 yes

# of radiation oncologist<sup>a</sup> 2019 0.0

# of medical physicist<sup>a</sup> 2019 n/a

# of surgeons<sup>a</sup> 2014 34.4

# of radiologist<sup>a</sup> 2019 n/a

# of nuclear medicine physician<sup>a</sup> 2019 0.0

# of medical & pathology lab scientists<sup>a</sup> 2009 n/a

## FORMULATING RESPONSE

Integrated NCD plan 2019 operational

NCCP (including cancer types) 2019 n/a

MPOWER measures fully implemented and achieved 2018 0

Cancer management guidelines 2019 no

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

# of treatment services (surgery, radiotherapy, chemotherapy) 2019 0

Breast cancer screening program 2019 no

Breast cancer screening program: Starting age, target population 2019 n/a

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

Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood) 2019 0 cancer(s)

Pathology services 2019 generally available

Bone marrow transplantation capacity 2019 generally not available

Palliative care availability: community/home-based care 2019 generally not available

Availability of opioids\* for pain management 2015-2017 0

\*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day

## GLOBAL INITIATIVES

### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 n/a

Cervical cancer screening 2019 no

Screening programme type 2019 n/a

Screening programme method 2019 n/a

Screening participation rates 2019 n/a

Early detection programme/guidelines 2019 no

Defined referral system 2019 no

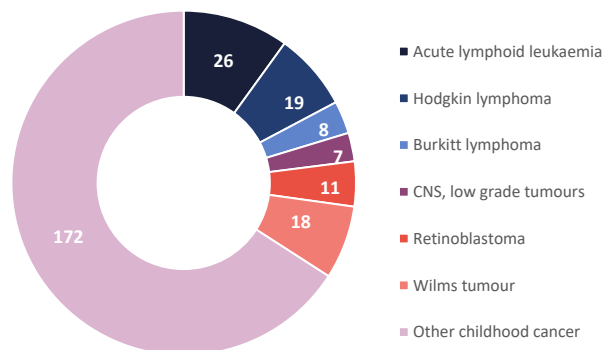
### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 261

Early detection programme/guidelines 2019 no

Defined referral system 2019 no

### Annual cancer cases (0-14 years old)



\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

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

## BURDEN OF CANCER

Total population (2019)

**37,411,038**

Total # cancer cases  
(2018)

**249,077**

Total # cancer deaths  
(2018)

**81,378**

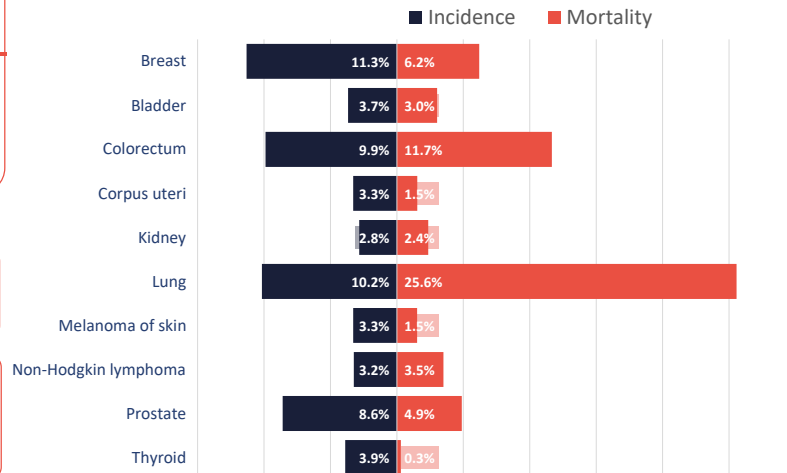
Premature deaths from NCDs (2016)

**58,329**

Cancer as % of NCD premature deaths (2016)

**49.8%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**29.0%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**7.2%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**3.9%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**5.8%**

Obesity (2012)<sup>b</sup>

**85.4%**

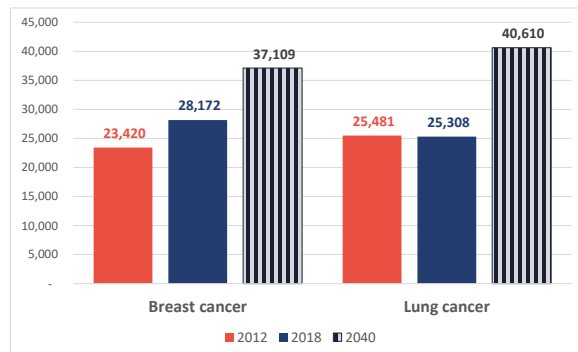
UV (2012)<sup>c</sup>

**7.3%**

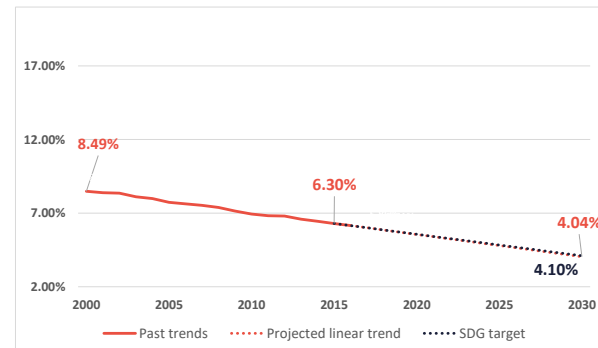
Occupational risk  
(2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

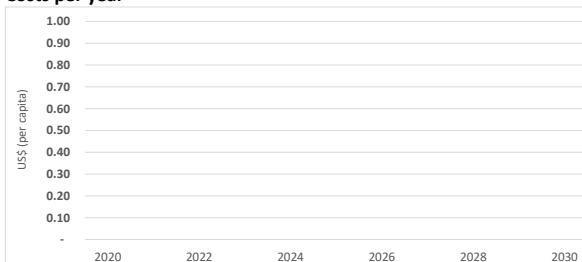


## INVESTMENT CASE (2019)

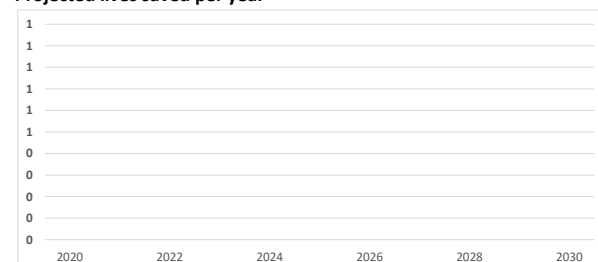
<sup>a</sup>High income

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR
Quality of mortality registration***	2007-2016	High
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	11.4
# of mammographs <sup>a</sup>	2020	27.0
# of CT scanners <sup>a</sup>	2020	22.5
# of MRI scanners <sup>a</sup>	2020	14.7
# of PET or PET/CT scanners <sup>a</sup>	2020	2.2

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	29.1
# of surgeons <sup>a</sup>	2013	300.7
# of radiologist <sup>a</sup>	2019	94.4
# of nuclear medicine physician <sup>a</sup>	2019	10.9
# of medical & pathology lab scientists <sup>a</sup>	2009	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	1.9
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s)
MPOWER measures fully implemented and achieved	2018	3	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	19925
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	50			

### GLOBAL INITIATIVES

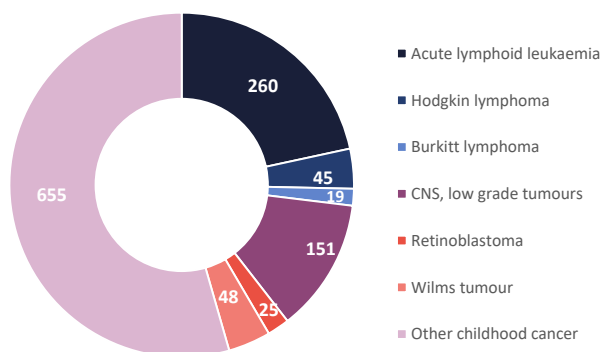
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	83
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	70% or more
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	1203
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

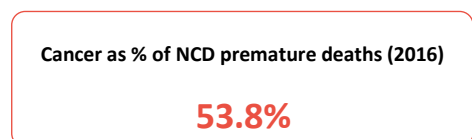
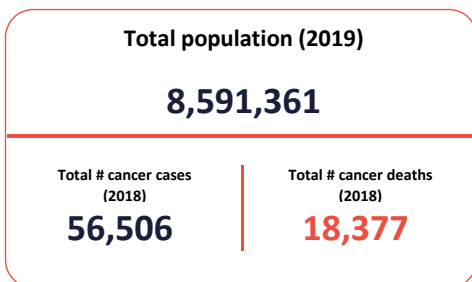
#### Annual cancer cases (0-14 years old)



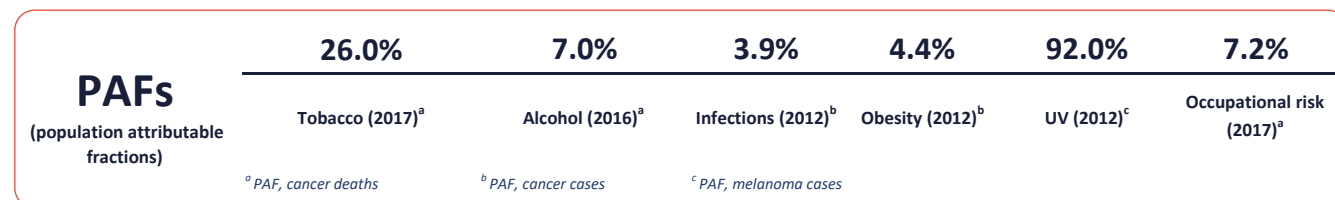
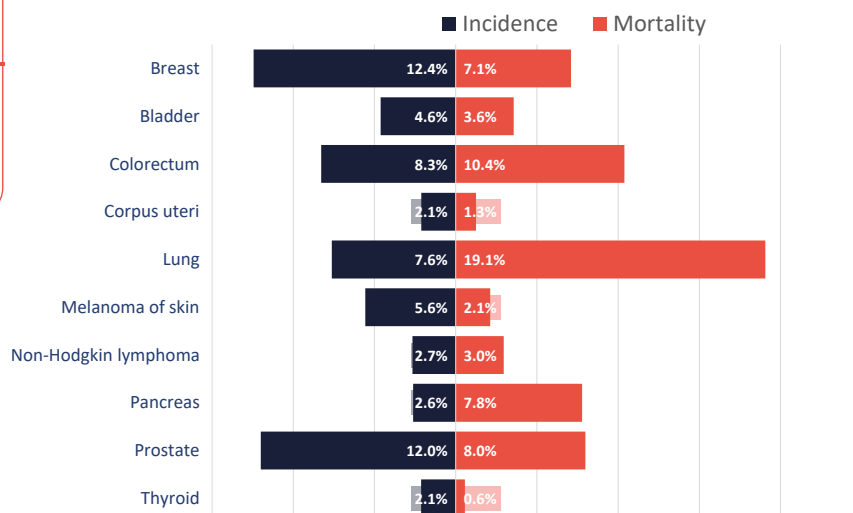
# SWITZERLAND

Cancer Country Profile 2020

## BURDEN OF CANCER

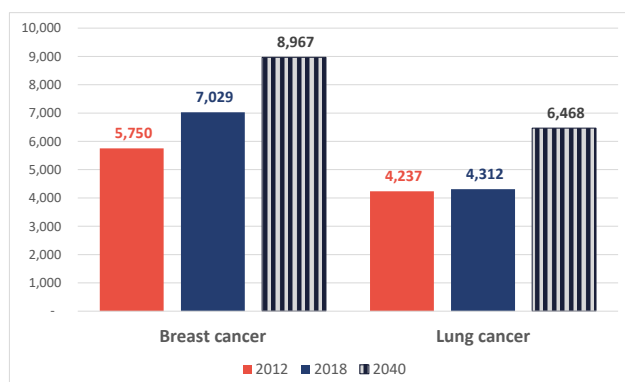


## Most common cancer cases (2018)

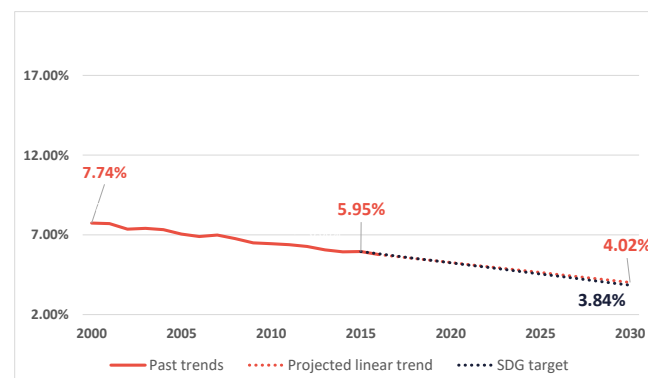


## TRENDS

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



Probability of premature death from cancer per year

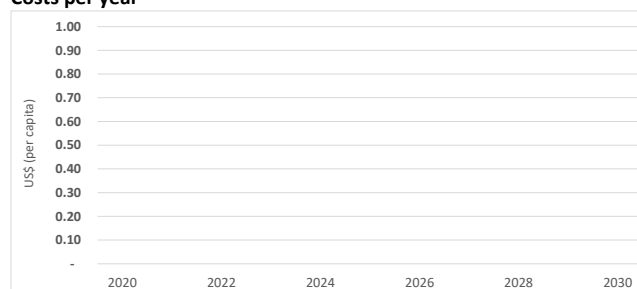


## INVESTMENT CASE (2019)

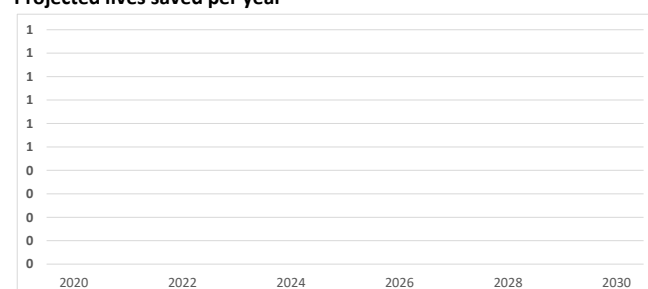
\*High income

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

### Costs per year



### Projected lives saved per year



# SWITZERLAND

Cancer Country Profile 2020

## HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR
Quality of mortality registration***	2007-2016	High
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	12.7
# of mammographs <sup>a</sup>	2020	49.6
# of CT scanners <sup>a</sup>	2020	63.2
# of MRI scanners <sup>a</sup>	2020	67.2
# of PET or PET/CT scanners <sup>a</sup>	2020	5.1

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	20.9
# of medical physicist <sup>a</sup>	2019	38.2
# of surgeons <sup>a</sup>	2013	724.0
# of radiologist <sup>a</sup>	2019	154.1
# of nuclear medicine physician <sup>a</sup>	2019	38.2
# of medical & pathology lab scientists <sup>a</sup>	n/a	n/a

## FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	n/a
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	11962
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	50			

## GLOBAL INITIATIVES

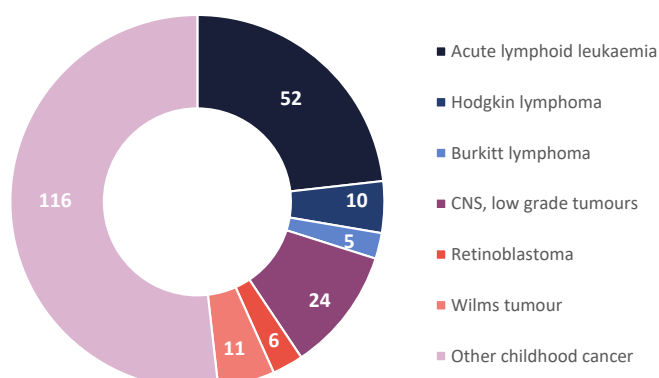
### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	57
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
Screening programme method	2019	PAP smear
Screening participation rates	2019	70% or more
Early detection programme/guidelines	2019	yes
Defined referral system	2019	don't know

### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	224
Early detection programme/guidelines	2019	don't know
Defined referral system	2019	don't know

### Annual cancer cases (0-14 years old)





# CHILE

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**18,952,035**

Total # cancer cases (2018)

**53,365**

Total # cancer deaths (2018)

**28,443**

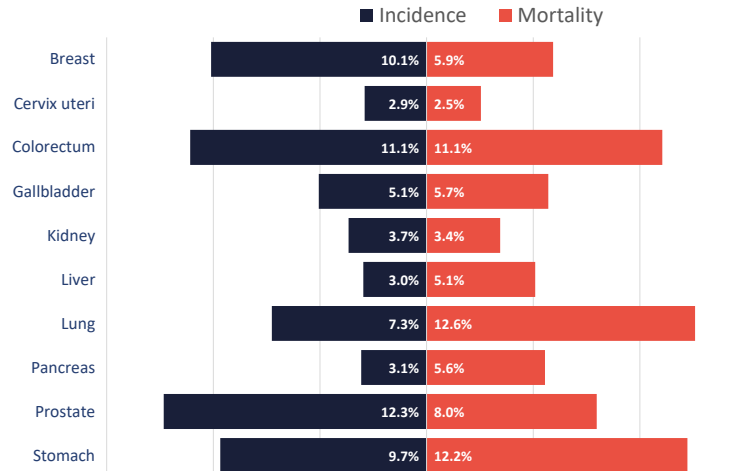
Premature deaths from NCDs (2016)

**30,456**

Cancer as % of NCD premature deaths (2016)

**37.9%**

## Most common cancer cases (2018)



## PAFs

(population attributable fractions)

**15.7%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**4.7%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**14.1%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**6.4%**

Obesity (2012)<sup>b</sup>

**21.2%**

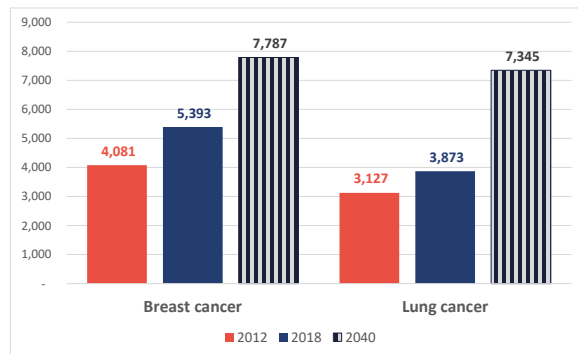
UV (2012)<sup>c</sup>

**1.9%**

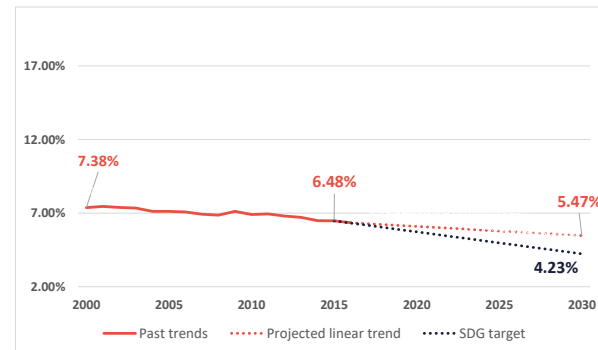
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

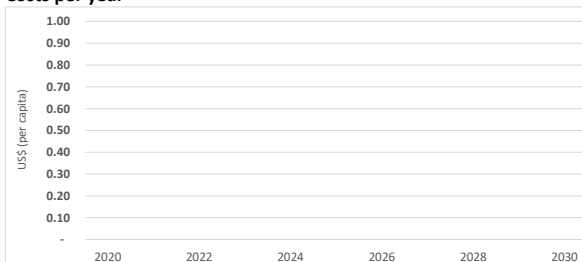


## INVESTMENT CASE (2019)

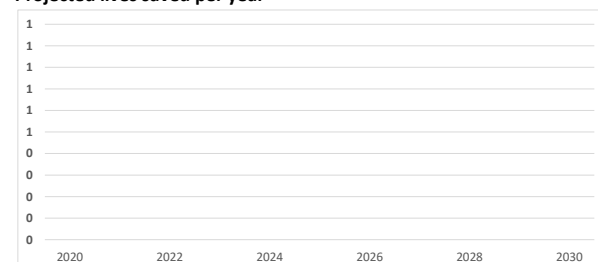
<sup>a</sup>High income

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 High quality PBCR

Quality of mortality registration\*\*\* 2007-2016 High

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 9.2# of mammographs<sup>a</sup> 2020 49.8# of CT scanners<sup>a</sup> 2020 82.1# of MRI scanners<sup>a</sup> 2020 41.6# of PET or PET/CT scanners<sup>a</sup> 2020 3.4

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 yes

# of radiation oncologist<sup>a</sup> 2019 n/a# of medical physicist<sup>a</sup> 2019 5.6# of surgeons<sup>a</sup> 2012 1337.4# of radiologist<sup>a</sup> 2019 135.3# of nuclear medicine physician<sup>a</sup> 2019 8.2# of medical & pathology lab scientists<sup>a</sup> 2009 5.4

## 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 50

# Public cancer centres per 10,000 cancer patients 2019 n/a

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 1183

\*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day

## GLOBAL INITIATIVES

## Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 74.8

Cervical cancer screening 2019 yes

Screening programme type 2019 organised

Screening programme method 2019 PAP smear

Screening participation rates 2019 don't know

Early detection programme/guidelines 2019 yes

Defined referral system 2019 yes

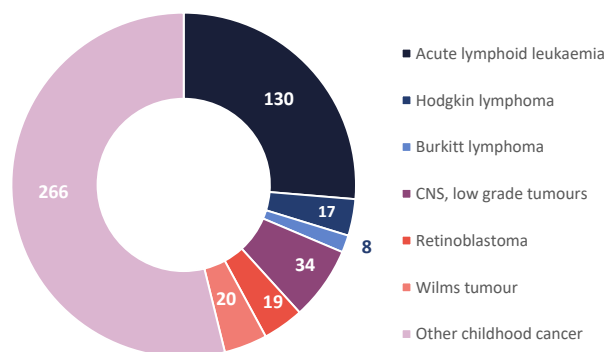
## Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 494

Early detection programme/guidelines 2019 yes

Defined referral system 2019 yes

## Annual cancer cases (0-14 years old)



# CHINA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**1,441,860,295**

Total # cancer cases  
(2018)  
**4,285,033**

Total # cancer deaths  
(2018)  
**2,865,174**

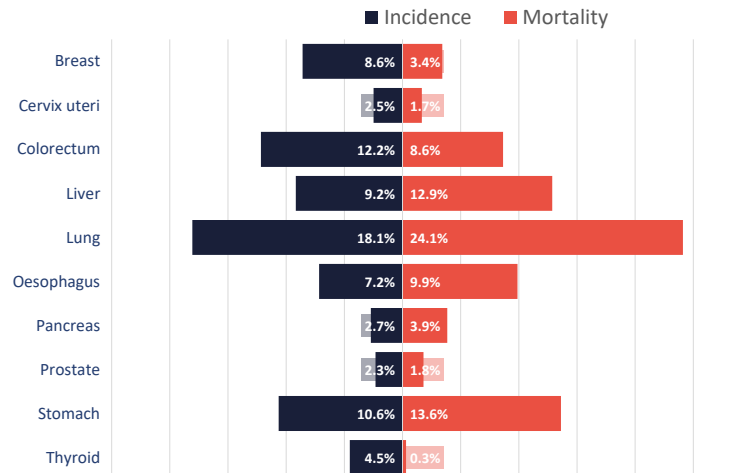
Premature deaths from NCDs (2016)

**3,177,367**

Cancer as % of NCD premature deaths (2016)

**36.2%**

## Most common cancer cases (2018)



## PAFs

(population attributable fractions)

**32.7%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**4.4%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**24.2%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**1.7%**

Obesity (2012)<sup>b</sup>

**0.5%**

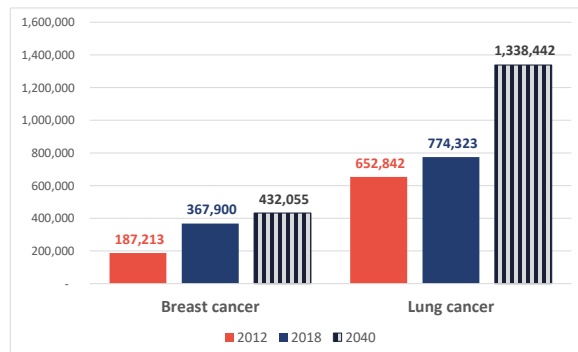
UV (2012)<sup>c</sup>

**2.4%**

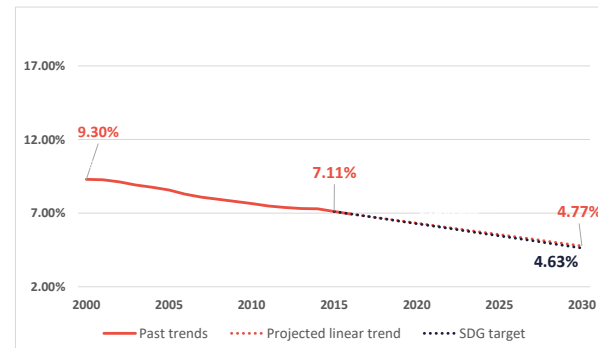
Occupational risk  
(2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

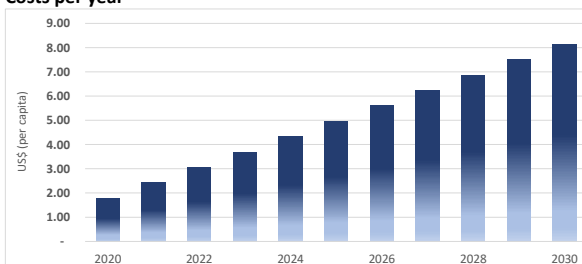


## INVESTMENT CASE (2019)

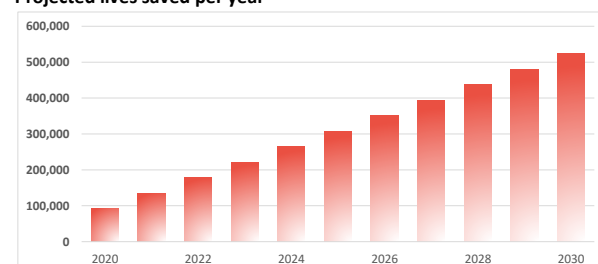
<sup>a</sup>Upper middle income

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

### Costs per year



### Projected lives saved per year



# CHINA

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR
Quality of mortality registration***	2007-2016	Low
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	3.8
# of mammographs <sup>a</sup>	2020	0.5
# of CT scanners <sup>a</sup>	2020	39.2
# of MRI scanners <sup>a</sup>	2020	15.6
# of PET or PET/CT scanners <sup>a</sup>	2020	0.7

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	4.7
# of surgeons <sup>a</sup>	2012	683.8
# of radiologist <sup>a</sup>	2019	281.9
# of nuclear medicine physician <sup>a</sup>	2019	7.0
# of medical & pathology lab scientists <sup>a</sup>	2010	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	1.6
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	don't know
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	88
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	35			

### GLOBAL INITIATIVES

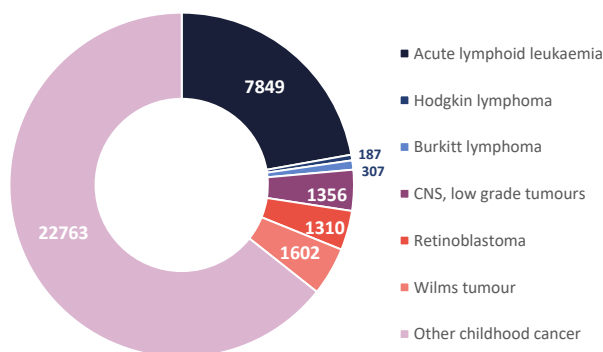
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	10%-50%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	35374
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Annual cancer cases (0-14 years old)



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

# CÔTE D'IVOIRE

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**25,716,554**

Total # cancer cases  
(2018)

**14,484**

Total # cancer deaths  
(2018)

**10,405**

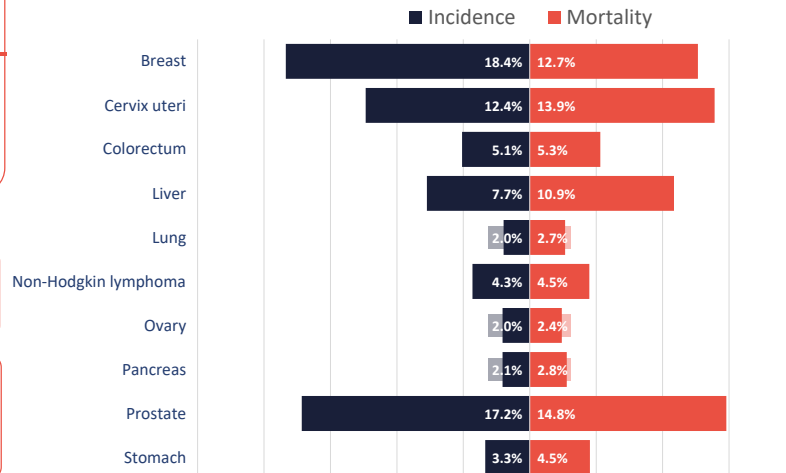
Premature deaths from NCDs (2016)

**51,751**

Cancer as % of NCD premature deaths (2016)

**11.8%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

n/a

6.6%

31.6%

1.6%

29.8%

0.8%

Tobacco (2017)<sup>a</sup>

Alcohol (2016)<sup>a</sup>

Infections (2012)<sup>b</sup>

Obesity (2012)<sup>b</sup>

UV (2012)<sup>c</sup>

Occupational risk  
(2017)<sup>a</sup>

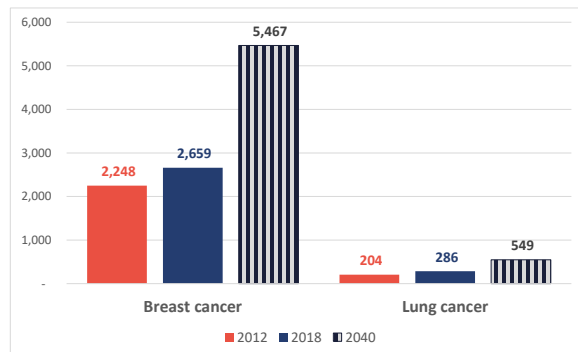
<sup>a</sup> PAF, cancer deaths

<sup>b</sup> PAF, cancer cases

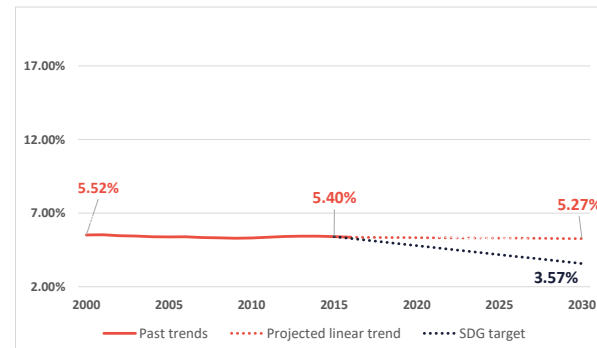
<sup>c</sup> PAF, melanoma cases

## TRENDS

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



### Probability of premature death from cancer per year

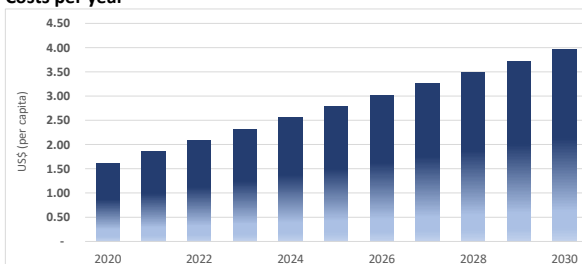


## INVESTMENT CASE (2019)

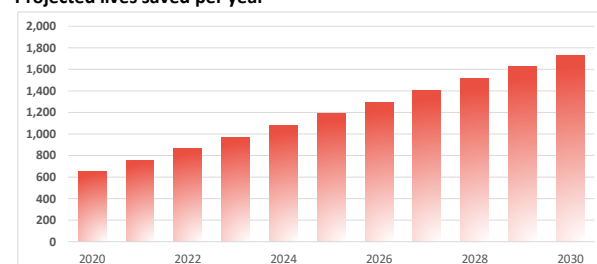
*\*Lower middle income*

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

### Costs per year



### Projected lives saved per year



# CÔTE D'IVOIRE

Cancer Country Profile 2020

## HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR
Quality of mortality registration***	2007-2016	No coverage
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	1.4
# of mammographs <sup>a</sup>	2020	6.9
# of CT scanners <sup>a</sup>	2020	13.8
# of MRI scanners <sup>a</sup>	2020	2.1
# of PET or PET/CT scanners <sup>a</sup>	2020	0.0

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	n/a
# of surgeons <sup>a</sup>	2014	219.6
# of radiologist <sup>a</sup>	2019	21.4
# of nuclear medicine physician <sup>a</sup>	2019	0.7
# of medical & pathology lab scientists <sup>a</sup>	2014	1643.2

## FORMULATING RESPONSE

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

# Public cancer centres per 10,000 cancer patients	2019	0.7
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
Pathology services	2019	generally not available
Bone marrow transplantation capacity	2019	generally not available
Palliative care availability: community/home-based care	2019	generally not available
Availability of opioids* for pain management	2015-2017	3

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

## GLOBAL INITIATIVES

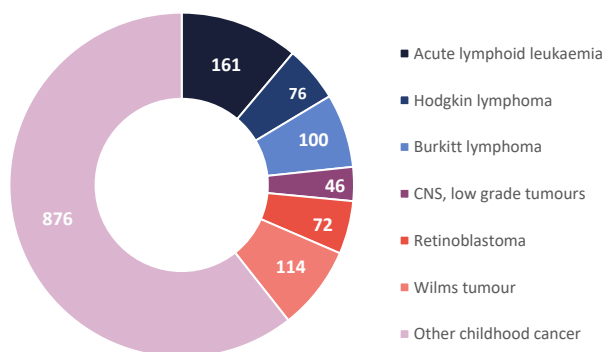
### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
Screening programme method	2019	visual inspection
Screening participation rates	2019	10%-50%
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	1445
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

### Annual cancer cases (0-14 years old)



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

# CAMEROON

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**25,876,387**

Total # cancer cases  
(2018)

**15,769**

Total # cancer deaths  
(2018)

**10,533**

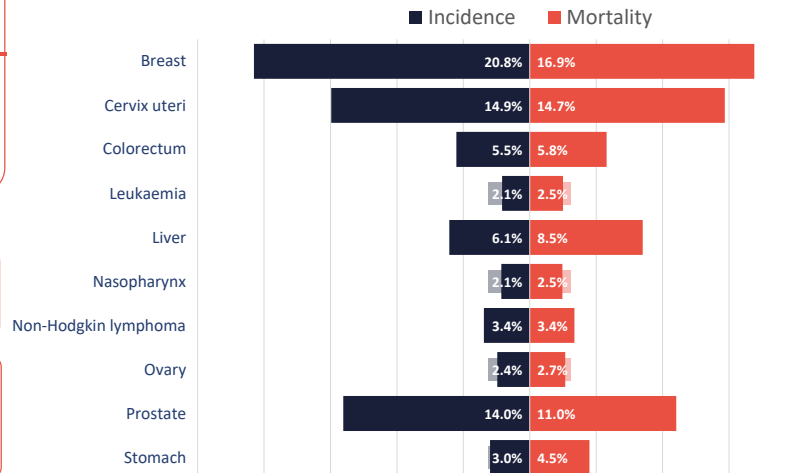
Premature deaths from NCDs (2016)

**34,330**

Cancer as % of NCD premature deaths (2016)

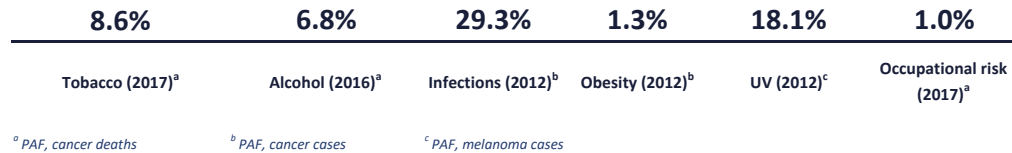
**22.4%**

## Most common cancer cases (2018)



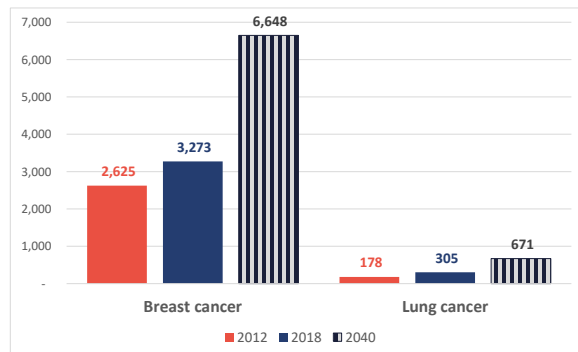
## PAFs

(population attributable fractions)

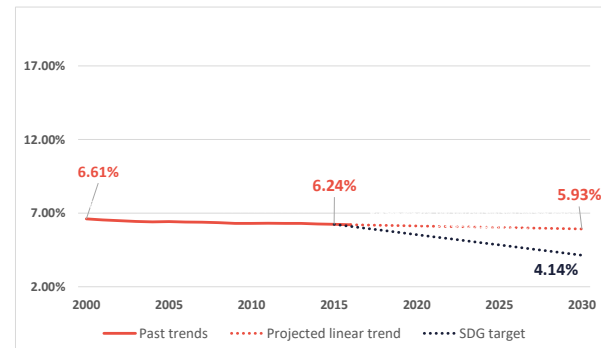


## TRENDS

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



### Probability of premature death from cancer per year

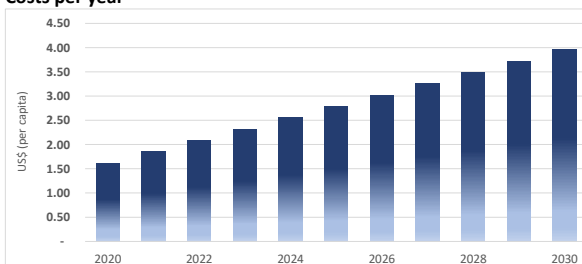


## INVESTMENT CASE (2019)

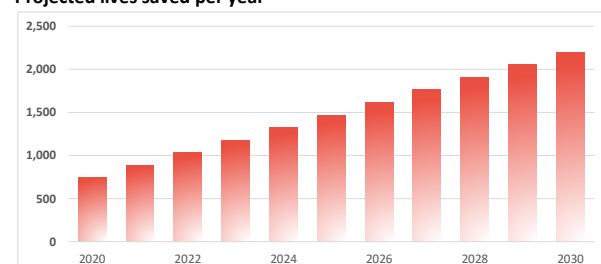
*\*Lower middle income*

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

### Costs per year



### Projected lives saved per year



# CAMEROON

Cancer Country Profile 2020

## HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\*

2019 Registration activity

Quality of mortality registration\*\*\* 2007-2016 No coverage

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 0.6

# of mammographs<sup>a</sup> 2020 23.5

# of CT scanners<sup>a</sup> 2020 17.8

# of MRI scanners<sup>a</sup> 2020 0.6

# of PET or PET/CT scanners<sup>a</sup> 2020 0.0

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer

2019 yes

# of radiation oncologist<sup>a</sup> 2019 n/a

# of medical physicist<sup>a</sup> 2019 n/a

# of surgeons<sup>a</sup> 2013 52.6

# of radiologist<sup>a</sup> 2019 25.4

# of nuclear medicine physician<sup>a</sup> 2019 n/a

# of medical & pathology lab scientists<sup>a</sup> 2004 n/a

## FORMULATING RESPONSE

Integrated NCD plan 2019 under development

NCCP (including cancer types) 2019 under development

MPOWER measures fully implemented and achieved 2018 1

Cancer management guidelines 2019 no

Palliative care included in their operational, integrated NCD plan 2019 no

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

Breast cancer screening program 2019 no

Breast cancer screening program: Starting age, target population 2019 n/a

# Public cancer centres per 10,000 cancer patients 2019 1.3

Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood) 2019 0 cancer(s)

Pathology services 2019 generally available

Bone marrow transplantation capacity 2019 generally not available

Palliative care availability: community/home-based care 2019 generally not available

Availability of opioids\* for pain management 2015-2017 0

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

## GLOBAL INITIATIVES

### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 n/a

Cervical cancer screening 2019 no

Screening programme type 2019 n/a

Screening programme method 2019 n/a

Screening participation rates 2019 n/a

Early detection programme/guidelines 2019 no

Defined referral system 2019 no

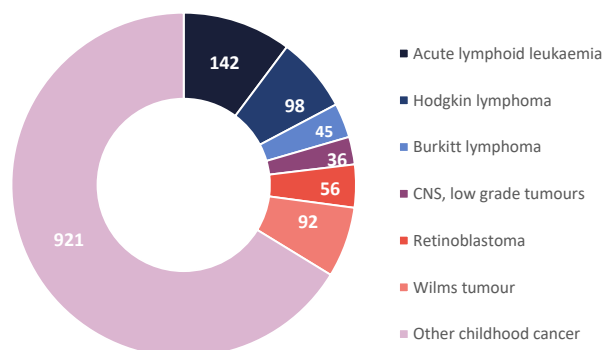
### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 1390

Early detection programme/guidelines 2019 no

Defined referral system 2019 no

### Annual cancer cases (0-14 years old)



\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

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



# DEMOCRATIC REPUBLIC OF THE CONGO

## BURDEN OF CANCER

Total population (2019)

86,790,568

Total # cancer cases  
(2018)

48,890

Total # cancer deaths  
(2018)

36,691

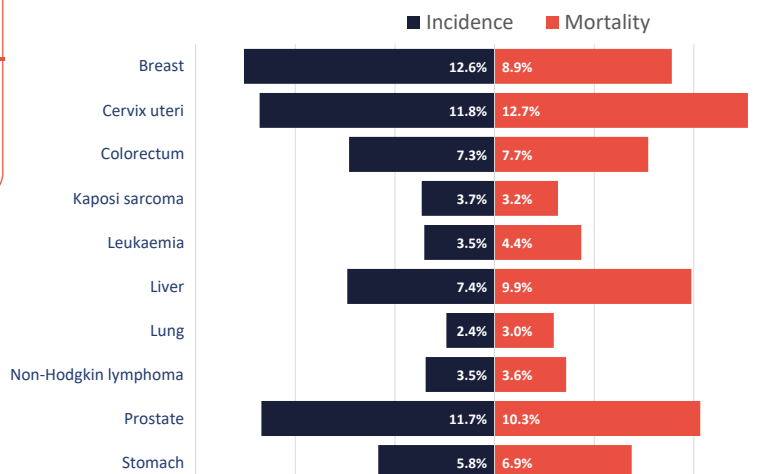
Premature deaths from NCDs (2016)

85,688

Cancer as % of NCD premature deaths (2016)

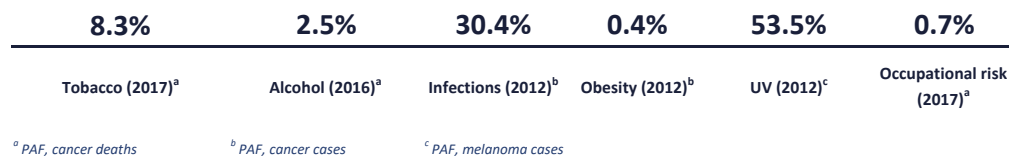
29.5%

### Most common cancer cases (2018)



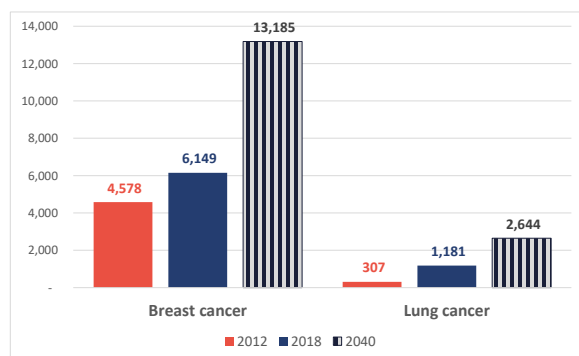
### PAFs

(population attributable fractions)

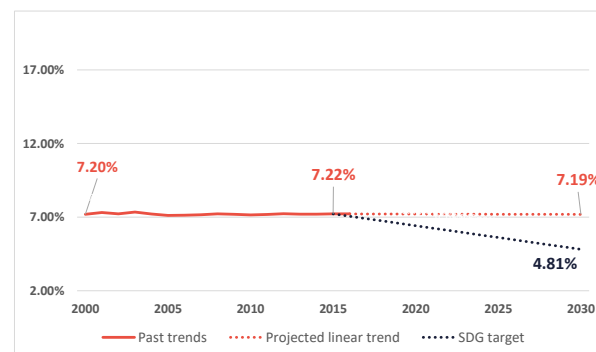


## TRENDS

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



### Probability of premature death from cancer per year

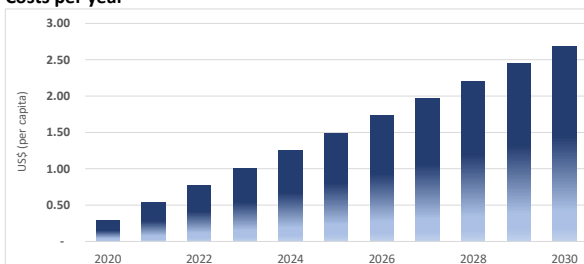


## INVESTMENT CASE (2019)

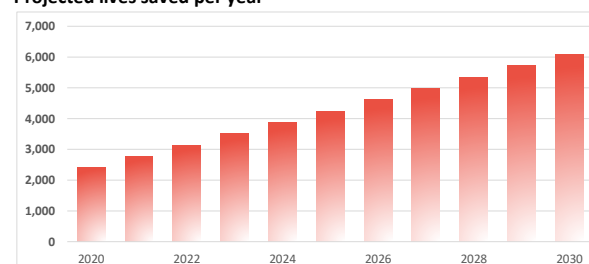
\*Low income

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

### Costs per year



### Projected lives saved per year



# DEMOCRATIC REPUBLIC OF THE CONGO

## HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 No information

Quality of mortality registration\*\*\* 2007-2016 No coverage

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 0.0

# of mammographs<sup>a</sup> 2020 1.2

# of CT scanners<sup>a</sup> 2020 2.5

# of MRI scanners<sup>a</sup> 2020 0.0

# of PET or PET/CT scanners<sup>a</sup> 2020 0.0

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 n/a

# of radiation oncologist<sup>a</sup> 2019 n/a

# of medical physicist<sup>a</sup> 2019 n/a

# of surgeons<sup>a</sup> 2013 11.0

# of radiologist<sup>a</sup> 2019 19.4

# of nuclear medicine physician<sup>a</sup> 2019 0.6

# of medical & pathology lab scientists<sup>a</sup> 2009 n/a

## FORMULATING RESPONSE

Integrated NCD plan 2019 operational

NCCP (including cancer types) 2019 n/a

MPOWER measures fully implemented and achieved 2018 1

Cancer management guidelines 2019 yes

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

# of treatment services (surgery, radiotherapy, chemotherapy) 2019 0

Breast cancer screening program 2019

Breast cancer screening program: Starting age, target population 2019 n/a

# Public cancer centres per 10,000 cancer patients 2019 n/a

Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood) 2019 2 cancer(s)

Pathology services 2019 generally not available

Bone marrow transplantation capacity 2019

Palliative care availability: community/home-based care 2019 generally not available

Availability of opioids\* for pain management 2015-2017 2

\*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day

## GLOBAL INITIATIVES

### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 n/a

Cervical cancer screening 2019

Screening programme type 2019 n/a

Screening programme method 2019 n/a

Screening participation rates 2019 n/a

Early detection programme/guidelines 2019 yes

Defined referral system 2019 yes

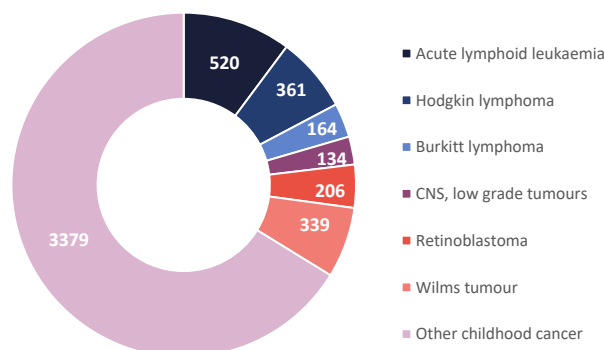
### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 5103

Early detection programme/guidelines 2019

Defined referral system 2019

### Annual cancer cases (0-14 years old)



\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

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

# CONGO

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**5,380,504**

Total # cancer cases  
(2018)

**2,415**

Total # cancer deaths  
(2018)

**1,577**

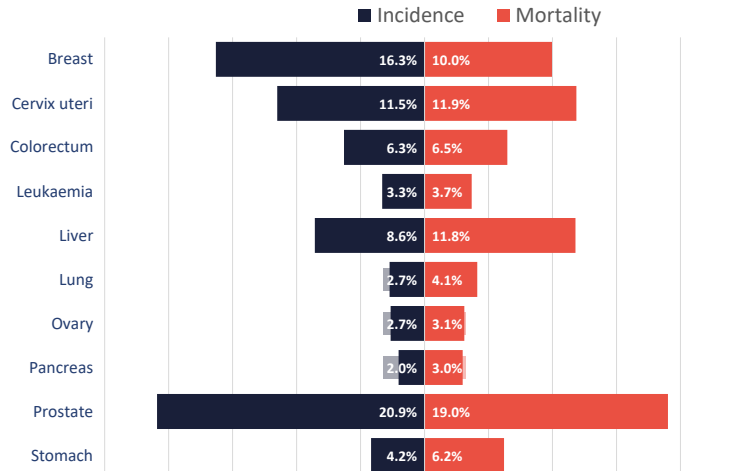
Premature deaths from NCDs (2016)

**5,494**

Cancer as % of NCD premature deaths (2016)

**20.8%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**10.5%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**4.0%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**27.2%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**1.1%**

Obesity (2012)<sup>b</sup>

**55.1%**

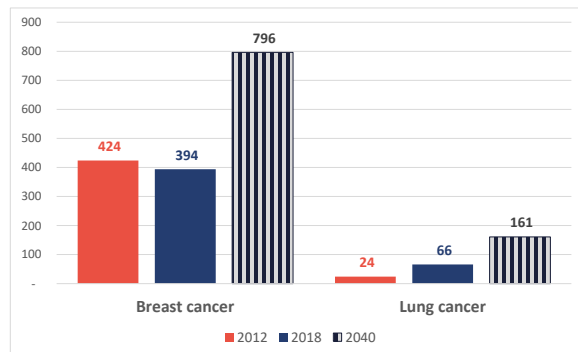
UV (2012)<sup>c</sup>

**1.1%**

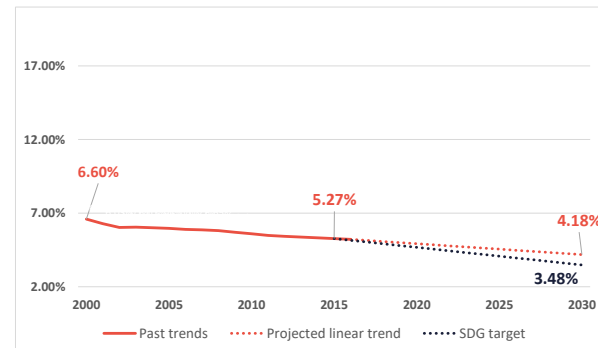
Occupational risk  
(2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

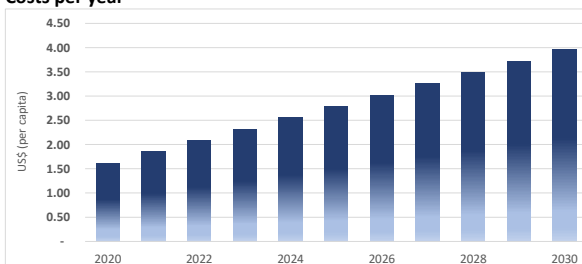


## INVESTMENT CASE (2019)

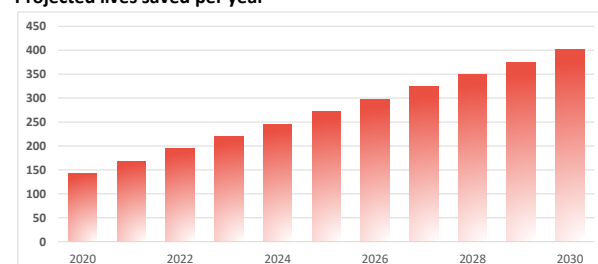
*\*Lower middle income*

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR
Quality of mortality registration***	2007-2016	No coverage
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	0.0
# of mammographs <sup>a</sup>	2020	8.3
# of CT scanners <sup>a</sup>	2020	16.6
# of MRI scanners <sup>a</sup>	2020	8.3
# of PET or PET/CT scanners <sup>a</sup>	2020	0.0

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	no
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	0.0
# of surgeons <sup>a</sup>	2013	29.0
# of radiologist <sup>a</sup>	2019	n/a
# of nuclear medicine physician <sup>a</sup>	2019	n/a
# of medical & pathology lab scientists <sup>a</sup>	2007	1159.4

### FORMULATING RESPONSE

Integrated NCD plan	2019	not in effect	# Public cancer centres per 10,000 cancer patients	2019	20.7
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	1	Availability of opioids* for pain management	2015-2017	0
Breast cancer screening program	2019	no	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	n/a			

### GLOBAL INITIATIVES

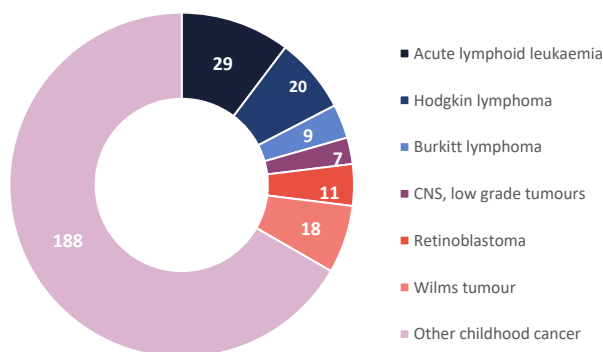
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	no
Screening programme type	2019	n/a
Screening programme method	2019	n/a
Screening participation rates	2019	n/a
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	282
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Annual cancer cases (0-14 years old)

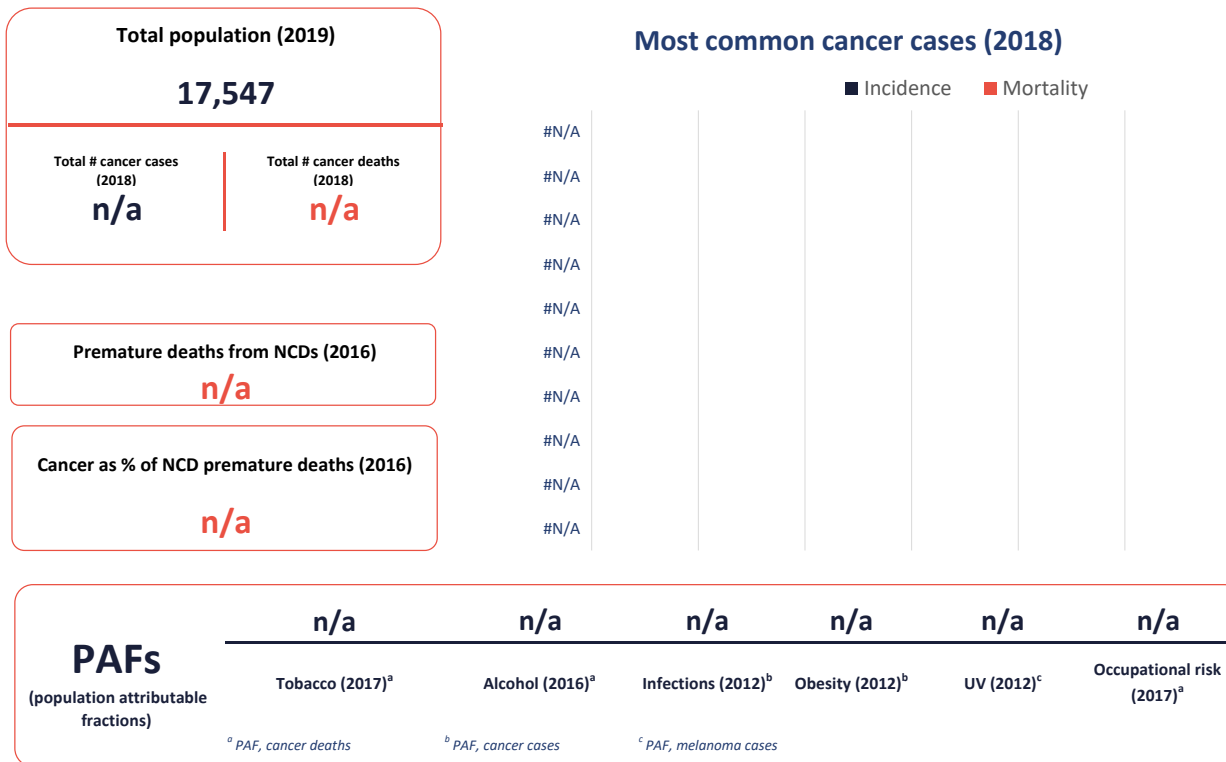


\*\*\*The mortality estimates for this country have a high degree of uncertainty because they are not based on any national NCD mortality data

# COOK ISLANDS

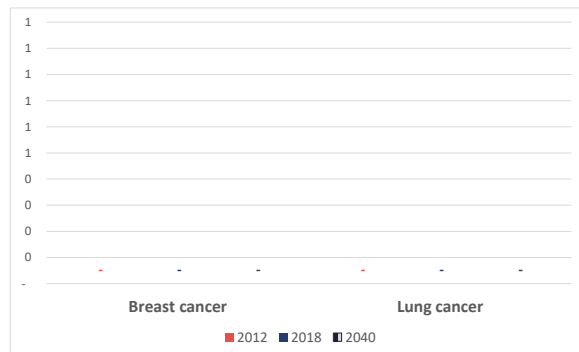
Cancer Country Profile 2020

## BURDEN OF CANCER

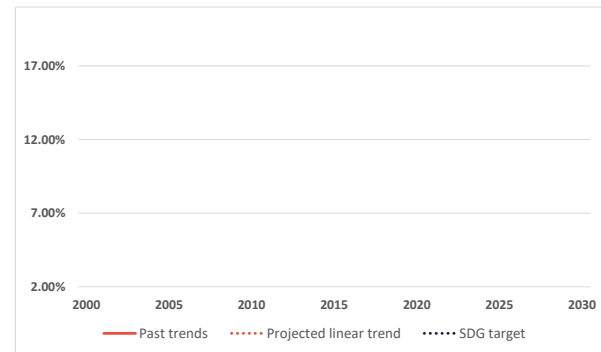


## TRENDS

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



Probability of premature death from cancer per year

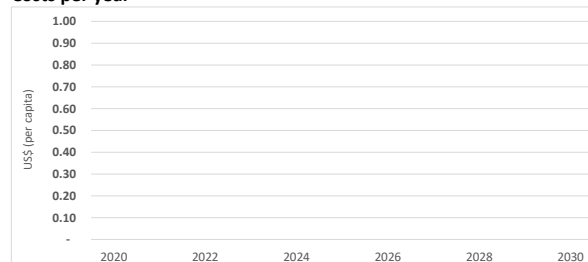


## INVESTMENT CASE (2019)

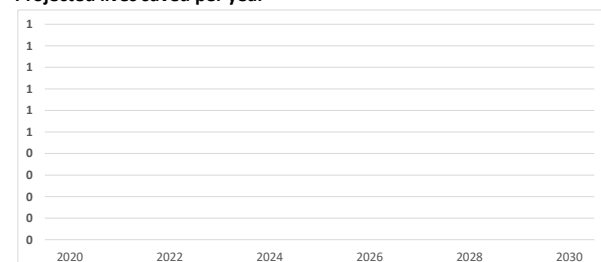
\*Not Classified

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

### Costs per year



### Projected lives saved per year



# COOK ISLANDS

Cancer Country Profile 2020

## HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\*

2019

Registration activity

Quality of mortality registration\*\*\*

2007-2016

Medium

# of external beam radiotherapy (photon,electron)<sup>a</sup>

2019

n/a

# of mammographs<sup>a</sup>

2020

n/a

# of CT scanners<sup>a</sup>

2020

n/a

# of MRI scanners<sup>a</sup>

2020

n/a

# of PET or PET/CT scanners<sup>a</sup>

2020

n/a

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer

2019

no

# of radiation oncologist<sup>a</sup>

2019

n/a

# of medical physicist<sup>a</sup>

2019

n/a

# of surgeons<sup>a</sup>

2014

n/a

# of radiologist<sup>a</sup>

2019

n/a

# of nuclear medicine physician<sup>a</sup>

2019

n/a

# of medical & pathology lab scientists<sup>a</sup>

2014

n/a

## FORMULATING RESPONSE

Integrated NCD plan

2019

operational

NCCP (including cancer types)

2019

n/a

MPOWER measures fully implemented and achieved

2018

0

Cancer management guidelines

2019

no

Palliative care included in their operational, integrated NCD plan

2019

no

# of treatment services (surgery, radiotherapy, chemotherapy)

2019

0

Breast cancer screening program

2019

yes

Breast cancer screening program: Starting age, target population

2019

40

# Public cancer centres per 10,000 cancer patients

2019

n/a

Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)

2019

0 cancer(s)

Pathology services

2019

generally available

Bone marrow transplantation capacity

2019

generally not available

Palliative care availability: community/home-based care

2019

generally not available

Availability of opioids\* for pain management

2015-2017

162

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

## GLOBAL INITIATIVES

### Elimination of Cervical Cancer

HPV vaccination programme coverage

2018

99

Cervical cancer screening

2019

yes

Screening programme type

2019

organised

Screening programme method

2019

PAP smear

Screening participation rates

2019

<10%

Early detection programme/guidelines

2019

no

Defined referral system

2019

no

### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)

2020

n/a

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 incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

# COLOMBIA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**50,339,443**

Total # cancer cases  
(2018)

**101,893**

Total # cancer deaths  
(2018)

**46,057**

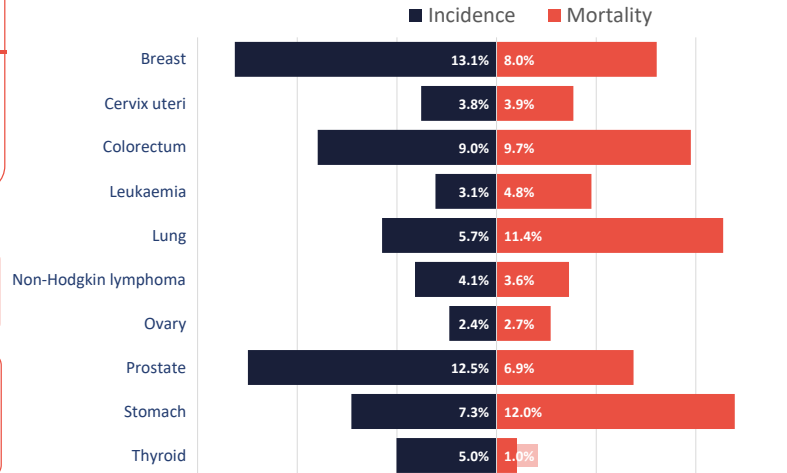
Premature deaths from NCDs (2016)

**86,545**

Cancer as % of NCD premature deaths (2016)

**36.1%**

## Most common cancer cases (2018)



## PAFs

(population attributable fractions)

**13.8%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**3.8%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**16.7%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**3.5%**

Obesity (2012)<sup>b</sup>

**62.1%**

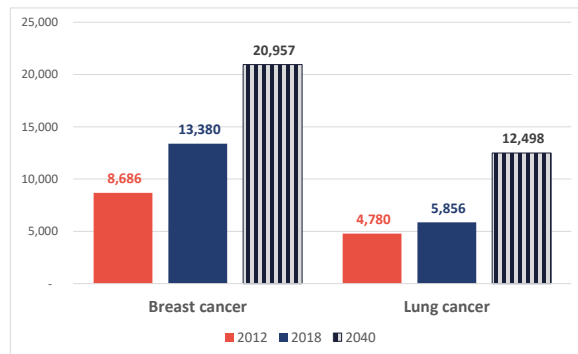
UV (2012)<sup>c</sup>

**1.5%**

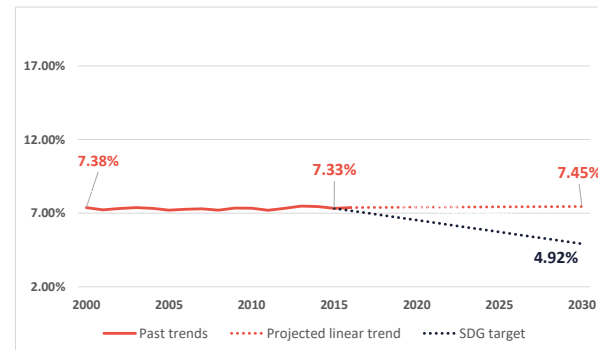
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

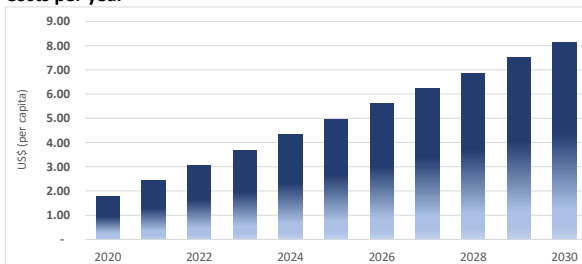


## INVESTMENT CASE (2019)

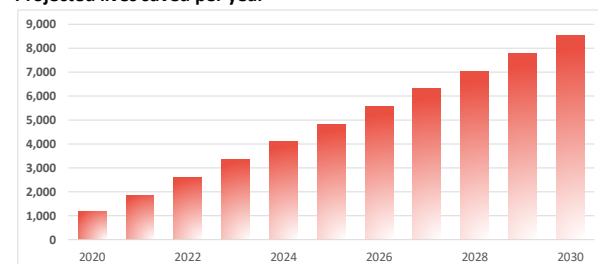
<sup>a</sup>Upper middle income

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

Costs per year



Projected lives saved per year



# COLOMBIA

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR
Quality of mortality registration***	2007-2016	Medium
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	8.7
# of mammographs <sup>a</sup>	2020	49.1
# of CT scanners <sup>a</sup>	2020	147.2
# of MRI scanners <sup>a</sup>	2020	34.3
# of PET or PET/CT scanners <sup>a</sup>	2020	1.4

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	4.7
# of surgeons <sup>a</sup>	2014	272.4
# of radiologist <sup>a</sup>	2019	127.6
# of nuclear medicine physician <sup>a</sup>	2019	8.0
# of medical & pathology lab scientists <sup>a</sup>	n/a	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	5.6
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s)
MPOWER measures fully implemented and achieved	2018	3	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	2	Availability of opioids* for pain management	2015-2017	980
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	50			

### GLOBAL INITIATIVES

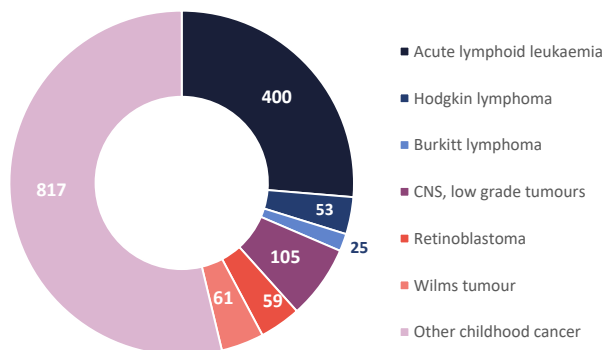
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	29.3
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	1520
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Annual cancer cases (0-14 years old)





# COMOROS

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**850,891**

Total # cancer cases  
(2018)

**510**

Total # cancer deaths  
(2018)

**367**

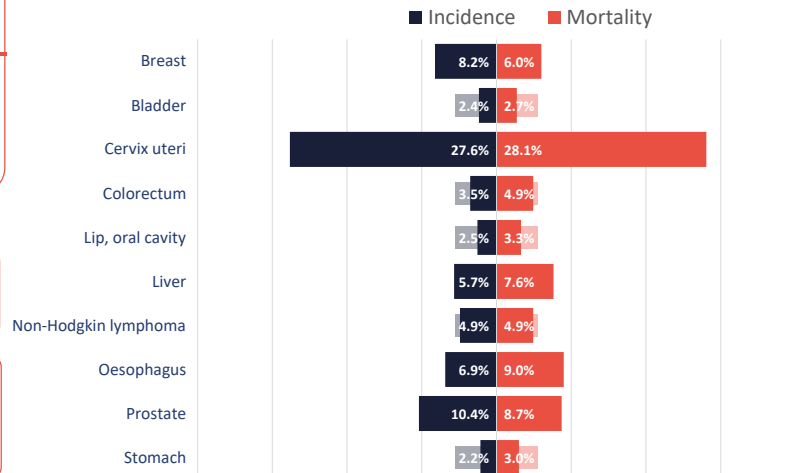
Premature deaths from NCDs (2016)

**1,189**

Cancer as % of NCD premature deaths (2016)

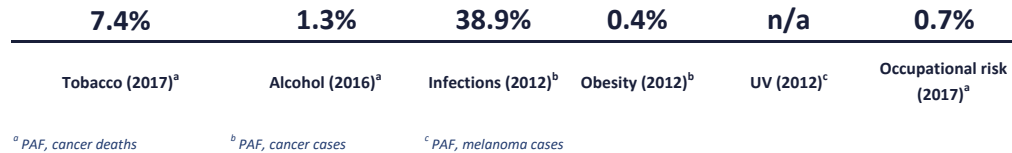
**26.7%**

## Most common cancer cases (2018)



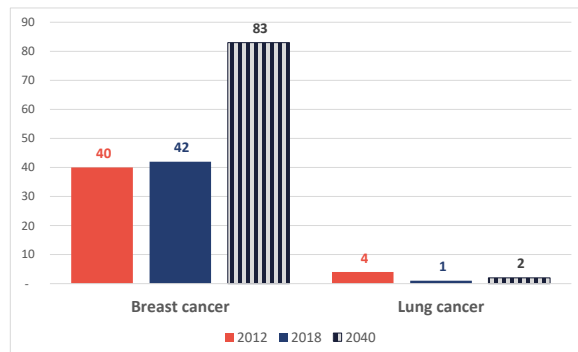
## PAFs

(population attributable fractions)

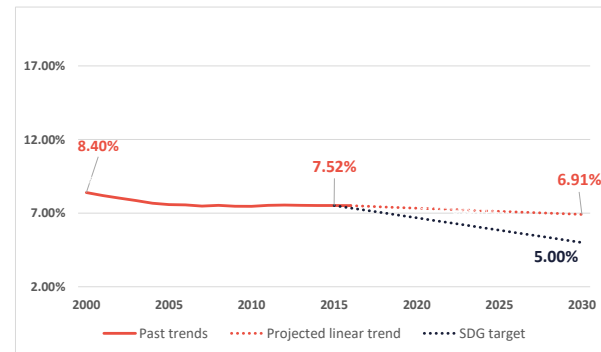


## TRENDS

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



Probability of premature death from cancer per year

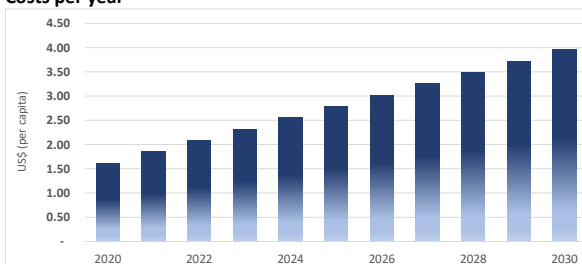


## INVESTMENT CASE (2019)

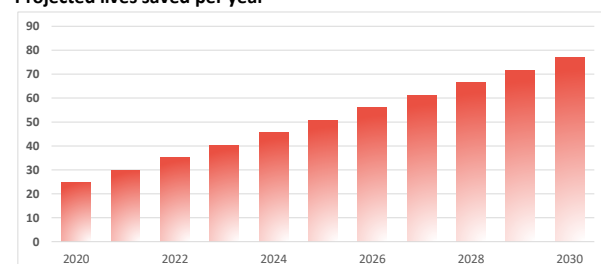
*\*Lower middle income*

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	No information
Quality of mortality registration***	2007-2016	No coverage
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	0.0
# of mammographs <sup>a</sup>	2020	19.6
# of CT scanners <sup>a</sup>	2020	19.6
# of MRI scanners <sup>a</sup>	2020	0.0
# of PET or PET/CT scanners <sup>a</sup>	2020	0.0

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	n/a
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	0.0
# of surgeons <sup>a</sup>	n/a	n/a
# of radiologist <sup>a</sup>	2019	n/a
# of nuclear medicine physician <sup>a</sup>	2019	0.0
# of medical & pathology lab scientists <sup>a</sup>	2012	n/a

## FORMULATING RESPONSE

Integrated NCD plan	2019	under development	# Public cancer centres per 10,000 cancer patients	2019	-
NCCP (including cancer types)	2019	don't know	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally not available
Cancer management guidelines	2019	don't know	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	1	Availability of opioids* for pain management	2015-2017	4
Breast cancer screening program	2019	don't know	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	n/a			

## GLOBAL INITIATIVES

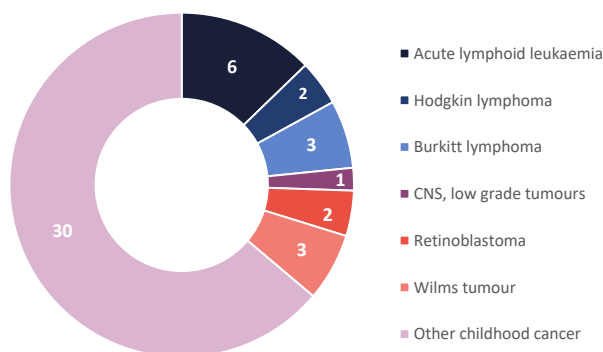
### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	don't know
Screening programme type	2019	n/a
Screening programme method	2019	n/a
Screening participation rates	2019	n/a
Early detection programme/guidelines	2019	don't know
Defined referral system	2019	don't know

### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	47
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

### Annual cancer cases (0-14 years old)



\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

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

# CABO VERDE

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**549,936**

Total # cancer cases  
(2018)

**641**

Total # cancer deaths  
(2018)

**492**

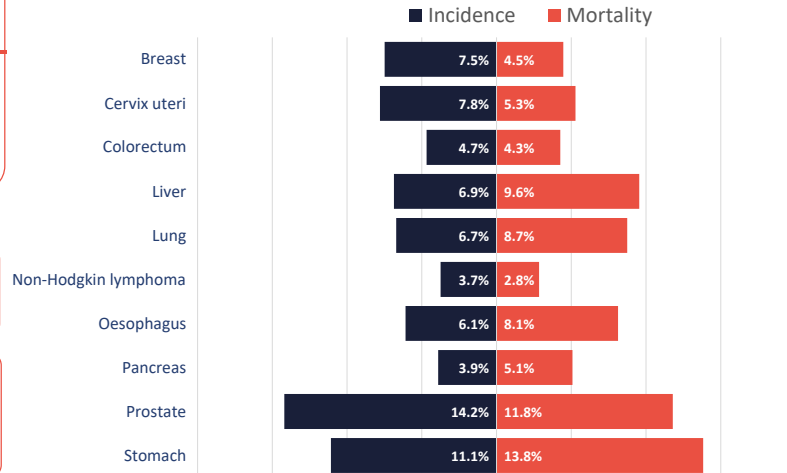
Premature deaths from NCDs (2016)

**610**

Cancer as % of NCD premature deaths (2016)

**27.0%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

n/a

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

7.4%

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

37.8%

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

1.7%

Obesity (2012)<sup>b</sup>

n/a

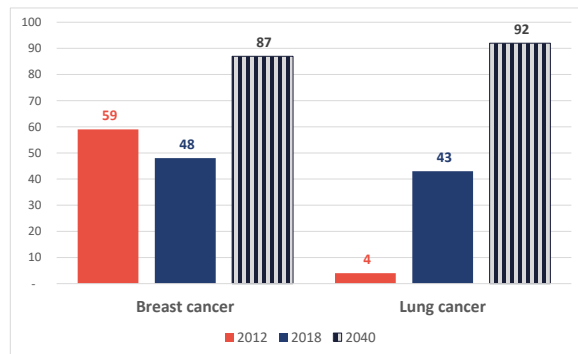
UV (2012)<sup>c</sup>

n/a

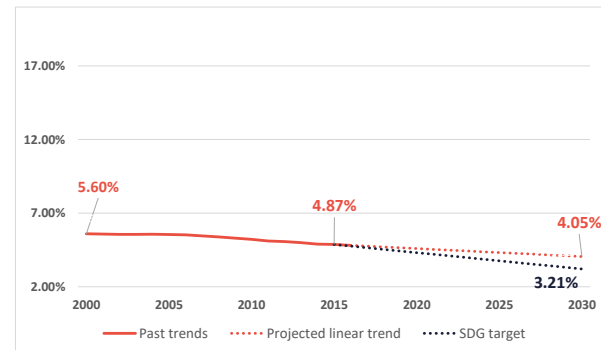
Occupational risk  
(2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

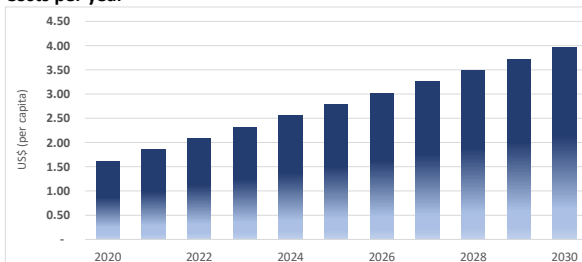


## INVESTMENT CASE (2019)

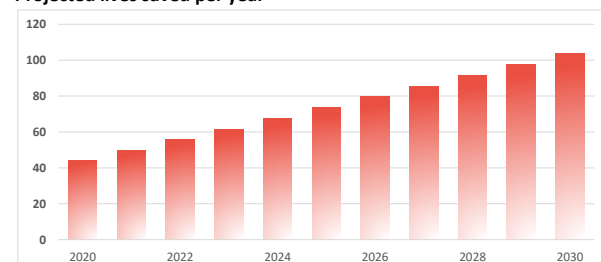
*\*Lower middle income*

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

Costs per year



Projected lives saved per year



# CABO VERDE

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\*

2019

Registration activity

Quality of mortality registration\*\*\*

2007-2016

Low

# of external beam radiotherapy (photon,electron)<sup>a</sup>

2019

0.0

# of mammographs<sup>a</sup>

2020

62.4

# of CT scanners<sup>a</sup>

2020

15.6

# of MRI scanners<sup>a</sup>

2020

15.6

# of PET or PET/CT scanners<sup>a</sup>

2020

15.6

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer

2019

yes

# of radiation oncologist<sup>a</sup>

2019

n/a

# of medical physicist<sup>a</sup>

2019

n/a

# of surgeons<sup>a</sup>

2011

889.2

# of radiologist<sup>a</sup>

2019

46.8

# of nuclear medicine physician<sup>a</sup>

2019

0.0

# of medical & pathology lab scientists<sup>a</sup>

n/a

n/a

### FORMULATING RESPONSE

Integrated NCD plan

2019

operational

NCCP (including cancer types)

2019

operational

MPOWER measures fully implemented and achieved

2018

0

Cancer management guidelines

2019

no

Palliative care included in their operational, integrated NCD plan

2019

yes

# of treatment services (surgery, radiotherapy, chemotherapy)

2019

1

Breast cancer screening program

2019

no

Breast cancer screening program: Starting age, target population

2019

n/a

# Public cancer centres per 10,000 cancer patients

2019

-

Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)

2019

0 cancer(s)

Pathology services

2019

generally available

Bone marrow transplantation capacity

2019

generally not available

Palliative care availability: community/home-based care

2019

generally not available

Availability of opioids\* for pain management

2015-2017

49

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

#### Elimination of Cervical Cancer

HPV vaccination programme coverage

2018

n/a

Cervical cancer screening

2019

no

Screening programme type

2019

n/a

Screening programme method

2019

n/a

Screening participation rates

2019

n/a

Early detection programme/guidelines

2019

no

Defined referral system

2019

no

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)

2020

21

Early detection programme/guidelines

2019

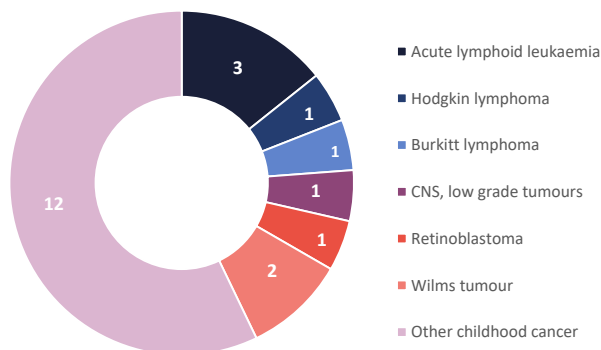
no

Defined referral system

2019

no

Annual cancer cases (0-14 years old)



\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

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

# COSTA RICA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**5,047,561**

Total # cancer cases  
(2018)

**12,957**

Total # cancer deaths  
(2018)

**5,709**

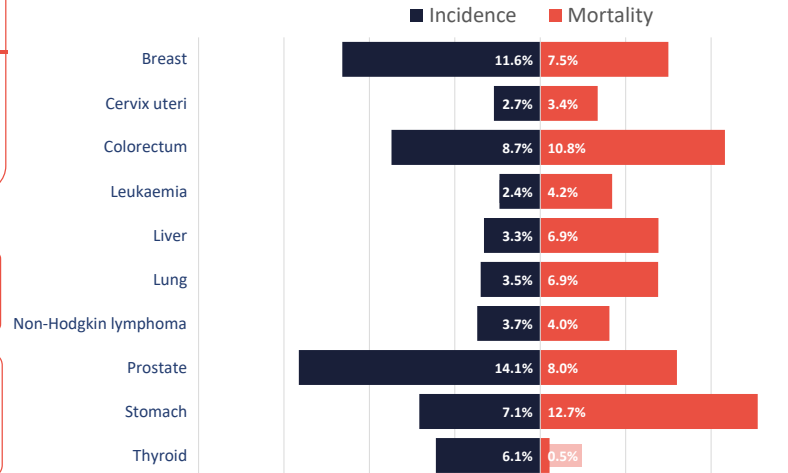
Premature deaths from NCDs (2016)

**7,191**

Cancer as % of NCD premature deaths (2016)

**35.0%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**13.2%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**4.0%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**15.0%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**4.4%**

Obesity (2012)<sup>b</sup>

**44.7%**

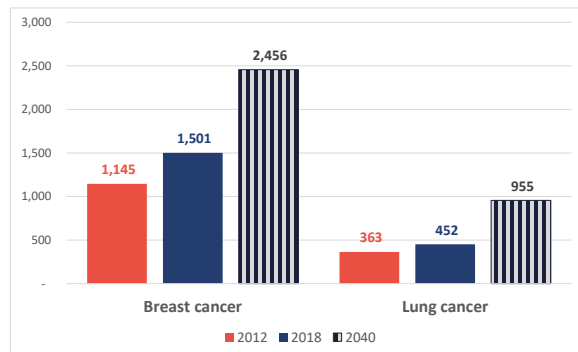
UV (2012)<sup>c</sup>

**1.1%**

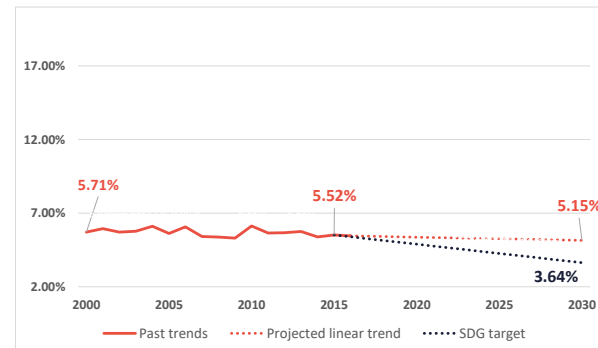
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

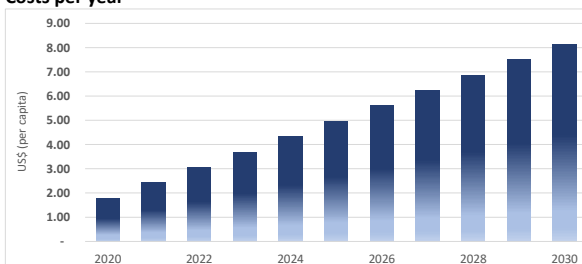


## INVESTMENT CASE (2019)

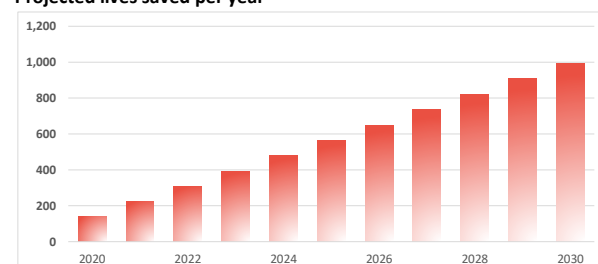
<sup>a</sup>Upper middle income

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

Costs per year



Projected lives saved per year



# COSTA RICA

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 **High quality PBCR**

Quality of mortality registration\*\*\* 2007-2016 **Medium**

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 **3.9**

# of mammographs<sup>a</sup> 2020 **46.3**

# of CT scanners<sup>a</sup> 2020 **19.3**

# of MRI scanners<sup>a</sup> 2020 **7.7**

# of PET or PET/CT scanners<sup>a</sup> 2020 **1.5**

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 **yes**

# of radiation oncologist<sup>a</sup> 2019 **n/a**

# of medical physicist<sup>a</sup> 2019 **24.7**

# of surgeons<sup>a</sup> 2014 **313.3**

# of radiologist<sup>a</sup> 2019 **121.2**

# of nuclear medicine physician<sup>a</sup> 2019 **6.2**

# of medical & pathology lab scientists<sup>a</sup> 2013 **481.6**

### FORMULATING RESPONSE

Integrated NCD plan 2019 **operational**

NCCP (including cancer types) 2019 **operational**

MPOWER measures fully implemented and achieved 2018 **2**

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 **45**

# Public cancer centres per 10,000 cancer patients 2019 **5.4**

Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood) 2019 **2 cancer(s)**

Pathology services 2019 **generally available**

Bone marrow transplantation capacity 2019 **generally available**

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

Availability of opioids\* for pain management 2015-2017 **281**

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

#### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 **n/a**

Cervical cancer screening 2019 **yes**

Screening programme type 2019 **organised**

Screening programme method 2019 **PAP smear**

Screening participation rates 2019 **don't know**

Early detection programme/guidelines 2019 **yes**

Defined referral system 2019 **yes**

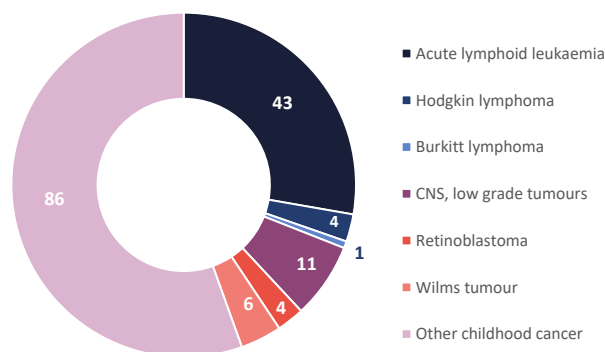
#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 **155**

Early detection programme/guidelines 2019 **no**

Defined referral system 2019 **no**

#### Annual cancer cases (0-14 years old)



## BURDEN OF CANCER

Total population (2019)

**11,333,484**

Total # cancer cases  
(2018)

**45,534**

Total # cancer deaths  
(2018)

**26,267**

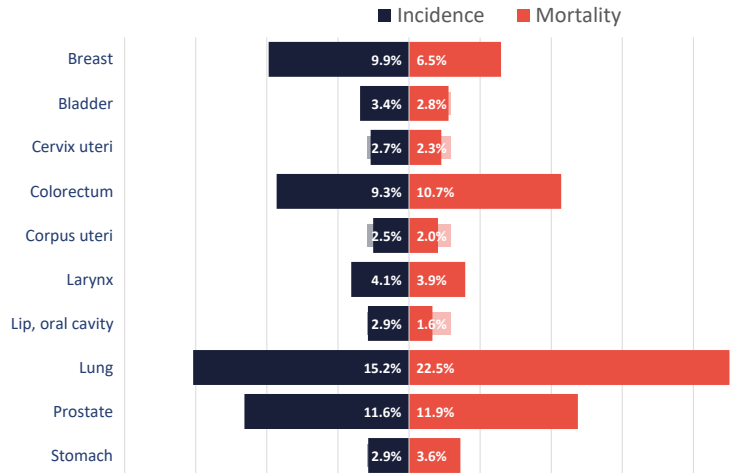
Premature deaths from NCDs (2016)

**27,617**

Cancer as % of NCD premature deaths (2016)

**39.8%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**31.4%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**5.7%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**8.4%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**3.9%**

Obesity (2012)<sup>b</sup>

**4.6%**

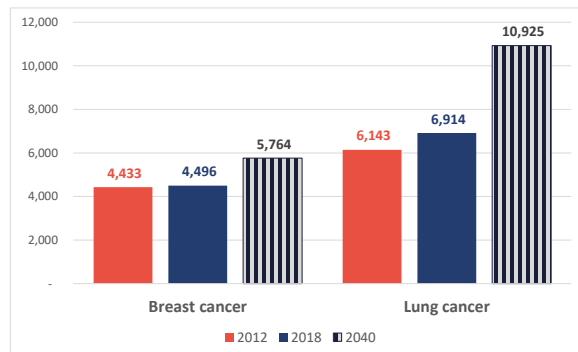
UV (2012)<sup>c</sup>

**2.1%**

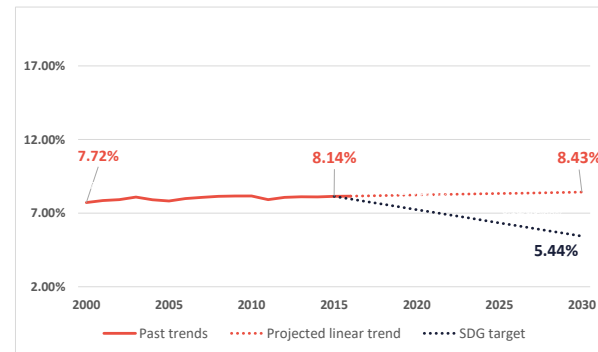
Occupational risk  
(2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

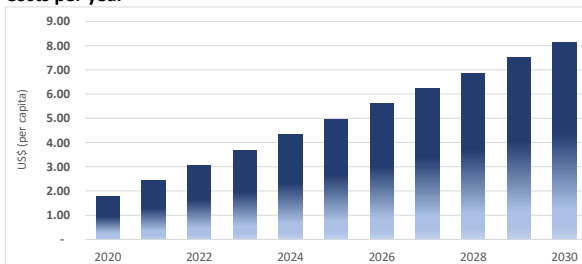


## INVESTMENT CASE (2019)

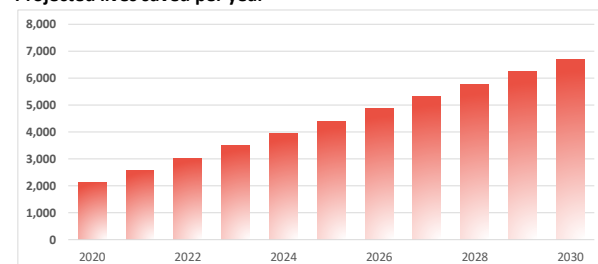
<sup>a</sup>Upper middle income

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR
Quality of mortality registration***	2007-2016	High
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	3.7
# of mammographs <sup>a</sup>	2020	43.0
# of CT scanners <sup>a</sup>	2020	12.1
# of MRI scanners <sup>a</sup>	2020	2.0
# of PET or PET/CT scanners <sup>a</sup>	2020	0.7

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	10.8
# of surgeons <sup>a</sup>	2013	1762.6
# of radiologist <sup>a</sup>	2019	151.3
# of nuclear medicine physician <sup>a</sup>	2019	7.5
# of medical & pathology lab scientists <sup>a</sup>	2014	n/a

## FORMULATING RESPONSE

Integrated NCD plan	2019	under development	# Public cancer centres per 10,000 cancer patients	2019	7.5
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	0
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	30			

## GLOBAL INITIATIVES

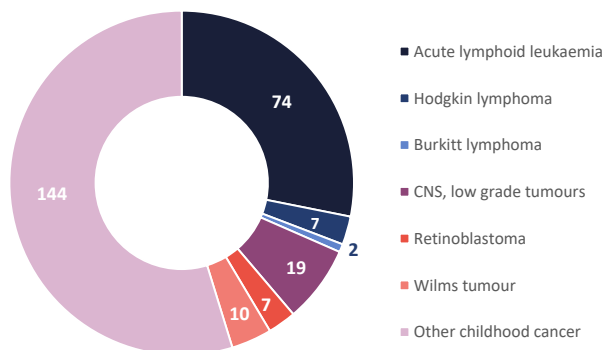
## Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	70% or more
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

## Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	263
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

## Annual cancer cases (0-14 years old)





# CYPRUS

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**1,198,574**

Total # cancer cases  
(2018)

**4,829**

Total # cancer deaths  
(2018)

**2,376**

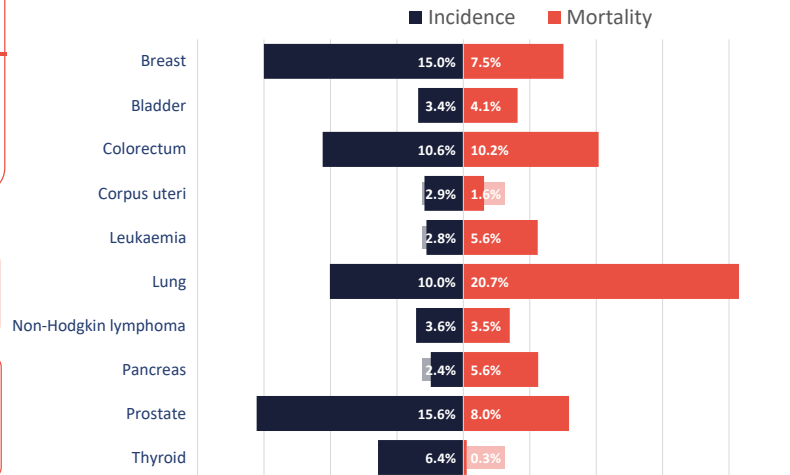
Premature deaths from NCDs (2016)

**1,668**

Cancer as % of NCD premature deaths (2016)

**44.9%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**29.2%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**4.8%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**5.4%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**6.0%**

Obesity (2012)<sup>b</sup>

**62.1%**

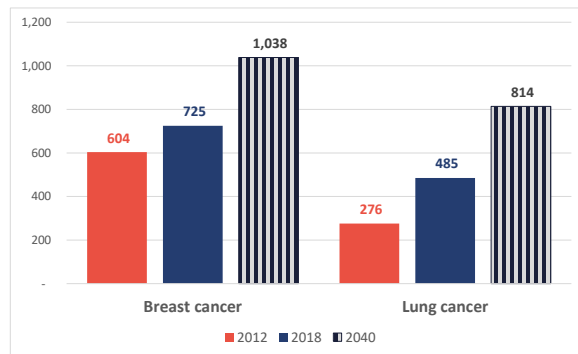
UV (2012)<sup>c</sup>

**6.5%**

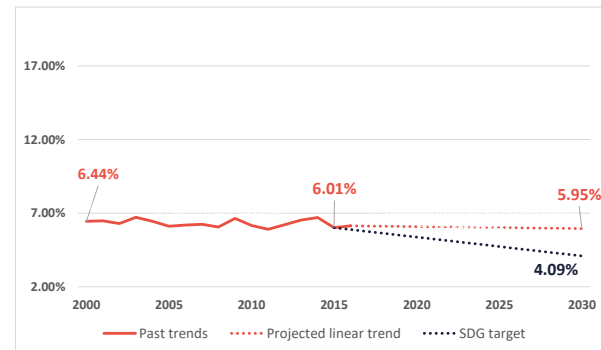
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

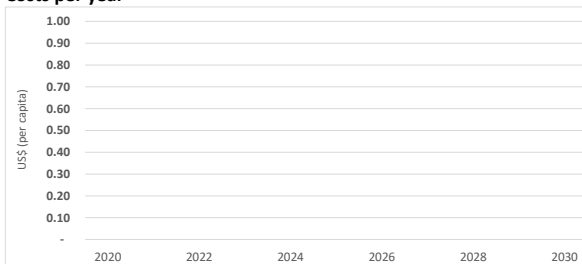


## INVESTMENT CASE (2019)

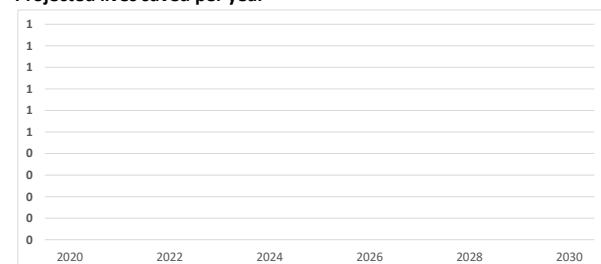
*\*High income*

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

Costs per year



Projected lives saved per year



# CYPRUS

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR
Quality of mortality registration***	2007-2016	Low
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	14.5
# of mammographs <sup>a</sup>	2020	89.0
# of CT scanners <sup>a</sup>	2020	60.1
# of MRI scanners <sup>a</sup>	2020	37.3
# of PET or PET/CT scanners <sup>a</sup>	2020	4.1

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	124.2
# of surgeons <sup>a</sup>	2012	292.0
# of radiologist <sup>a</sup>	2019	320.2
# of nuclear medicine physician <sup>a</sup>	2019	14.5
# of medical & pathology lab scientists <sup>a</sup>	2008	45.6

### FORMULATING RESPONSE

Integrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients	2019	2.1
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s)
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally available
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	n/a	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	1933
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	50			

### GLOBAL INITIATIVES

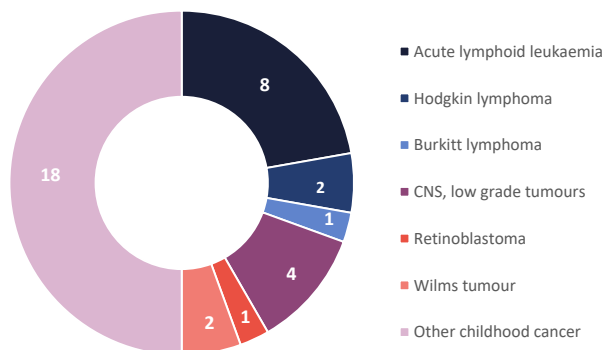
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	63.8
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
Screening programme method	2019	PAP smear
Screening participation rates	2019	70% or more
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	36
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Annual cancer cases (0-14 years old)



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

# CZECH REPUBLIC

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**10,689,213**

Total # cancer cases  
(2018)

**65,456**

Total # cancer deaths  
(2018)

**26,980**

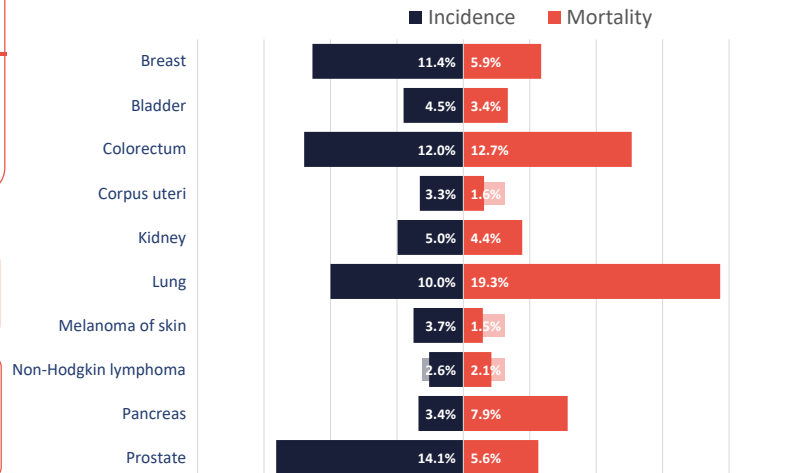
Premature deaths from NCDs (2016)

**27,115**

Cancer as % of NCD premature deaths (2016)

**43.3%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**29.8%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**9.1%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**6.1%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**8.5%**

Obesity (2012)<sup>b</sup>

**88.7%**

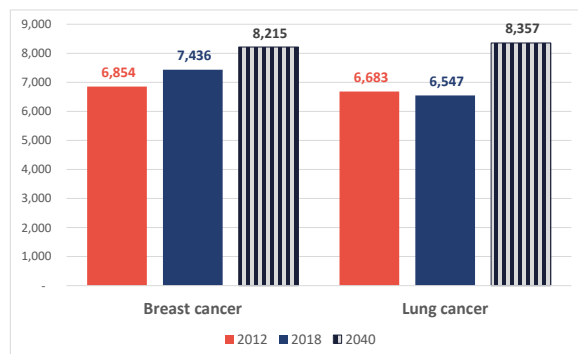
UV (2012)<sup>c</sup>

**2.6%**

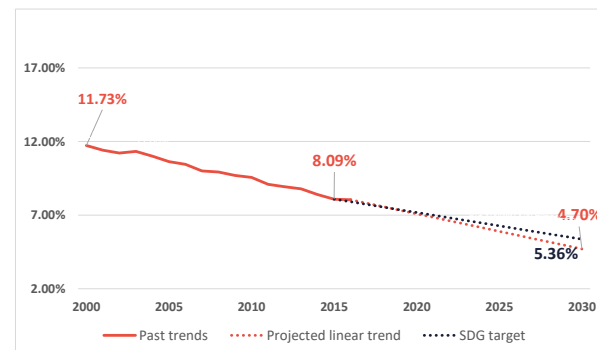
Occupational risk  
(2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

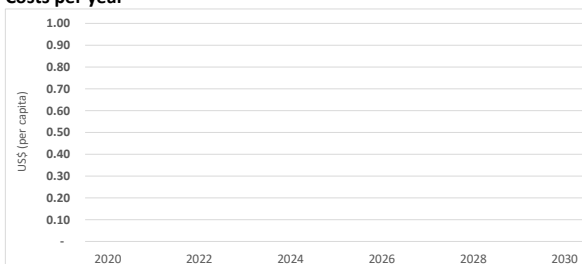


## INVESTMENT CASE (2019)

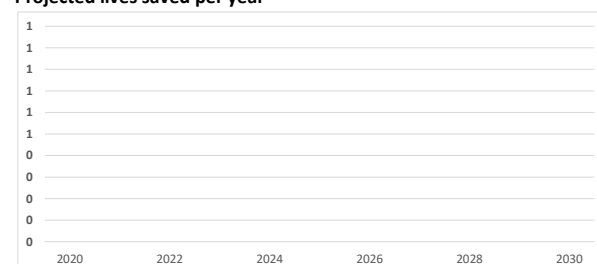
<sup>a</sup>High income

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

### Costs per year



### Projected lives saved per year



# CZECH REPUBLIC

Cancer Country Profile 2020

## HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 High quality PBCR

Quality of mortality registration\*\*\* 2007-2016 High

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 9.3

# of mammographs<sup>a</sup> 2020 18.8

# of CT scanners<sup>a</sup> 2020 33.5

# of MRI scanners<sup>a</sup> 2020 17.0

# of PET or PET/CT scanners<sup>a</sup> 2020 2.4

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 yes

# of radiation oncologist<sup>a</sup> 2019 39.1

# of medical physicist<sup>a</sup> 2019 22.5

# of surgeons<sup>a</sup> 2013 1289.6

# of radiologist<sup>a</sup> 2019 229.2

# of nuclear medicine physician<sup>a</sup> 2019 19.2

# of medical & pathology lab scientists<sup>a</sup> n/a 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 45

# Public cancer centres per 10,000 cancer patients 2019 9.3

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 available

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

Availability of opioids\* for pain management 2015-2017 5005

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

## 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

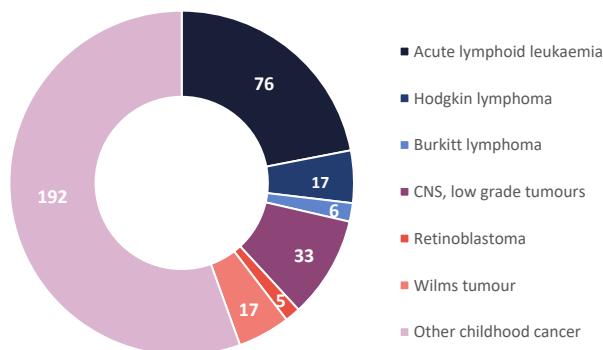
### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 346

Early detection programme/guidelines 2019 no

Defined referral system 2019 no

### Annual cancer cases (0-14 years old)



# GERMANY

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**83,517,046**

Total # cancer cases (2018)

**608,742**

Total # cancer deaths (2018)

**247,462**

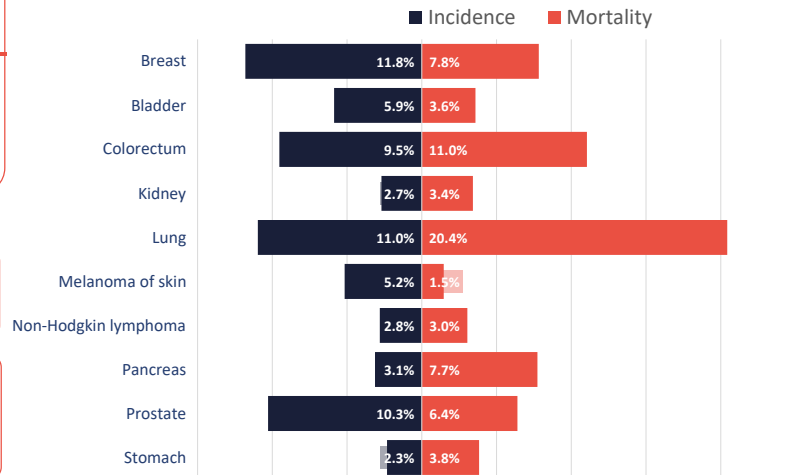
Premature deaths from NCDs (2016)

**168,857**

Cancer as % of NCD premature deaths (2016)

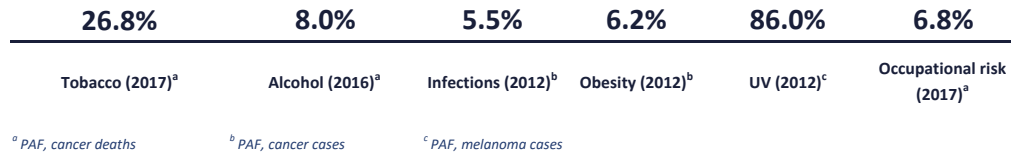
**46.4%**

### Most common cancer cases (2018)



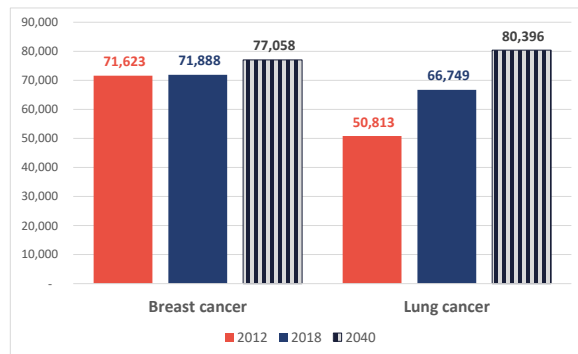
### PAFs

(population attributable fractions)

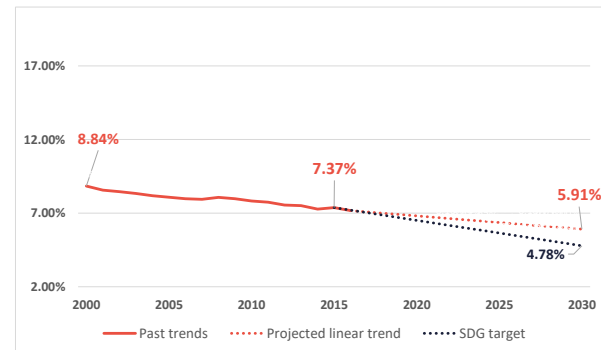


## TRENDS

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



### Probability of premature death from cancer per year

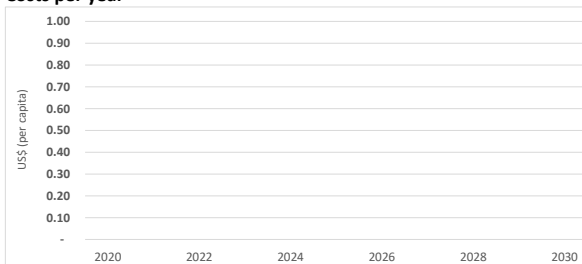


## INVESTMENT CASE (2019)

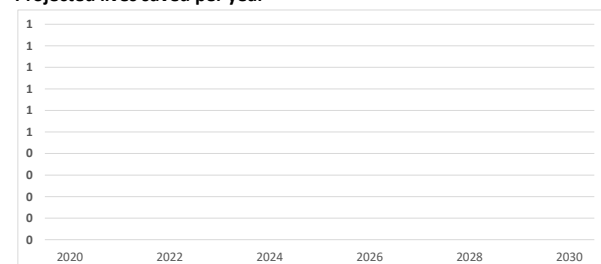
\*High income

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

### Costs per year



### Projected lives saved per year



# GERMANY

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR
Quality of mortality registration***	2007-2016	High
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	8.9
# of mammographs <sup>a</sup>	2020	0.0
# of CT scanners <sup>a</sup>	2020	47.8
# of MRI scanners <sup>a</sup>	2020	46.9
# of PET or PET/CT scanners <sup>a</sup>	2020	2.1

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	26.1
# of surgeons <sup>a</sup>	2013	901.3
# of radiologist <sup>a</sup>	2019	163.5
# of nuclear medicine physician <sup>a</sup>	2019	16.4
# of medical & pathology lab scientists <sup>a</sup>	n/a	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	n/a
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s)
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	26237
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	50			

### GLOBAL INITIATIVES

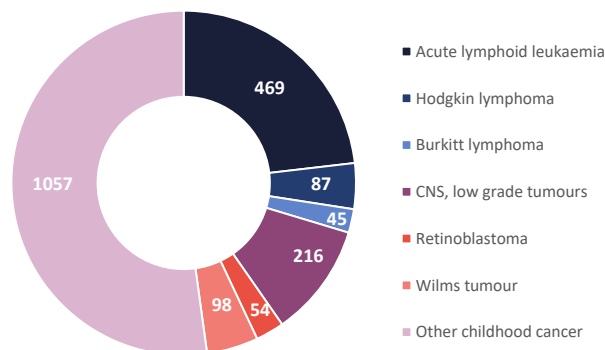
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	31.3
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
Screening programme method	2019	PAP smear
Screening participation rates	2019	70% or more
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	2026
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Annual cancer cases (0-14 years old)



# DJIBOUTI

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**973,557**

Total # cancer cases  
(2018)

**674**

Total # cancer deaths  
(2018)

**472**

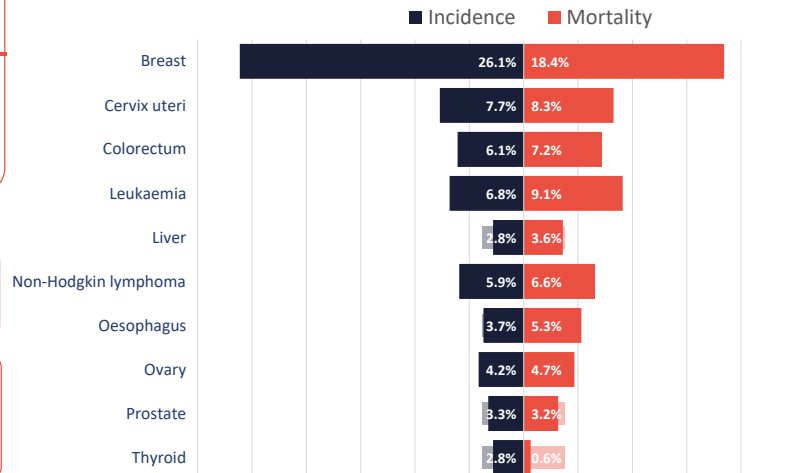
Premature deaths from NCDs (2016)

**1,553**

Cancer as % of NCD premature deaths (2016)

**25.1%**

## Most common cancer cases (2018)



## PAFs

(population attributable fractions)

**10.3%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**2.1%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**17.2%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**2.0%**

Obesity (2012)<sup>b</sup>

**n/a**

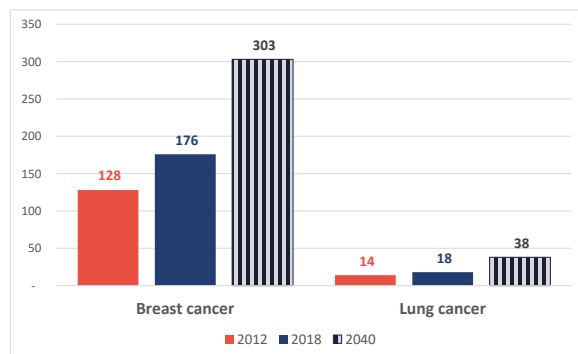
UV (2012)<sup>c</sup>

**0.7%**

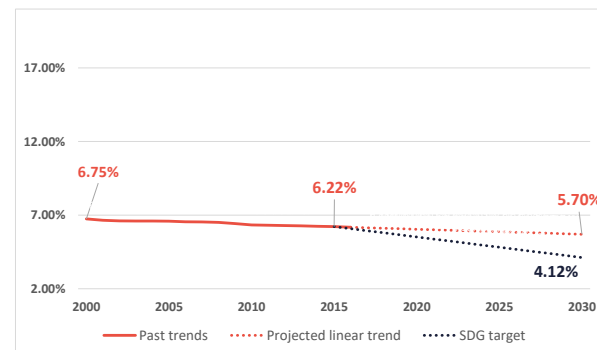
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

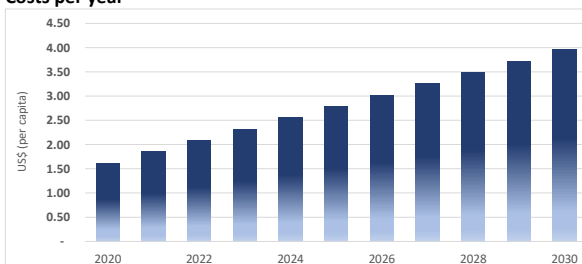


## INVESTMENT CASE (2019)

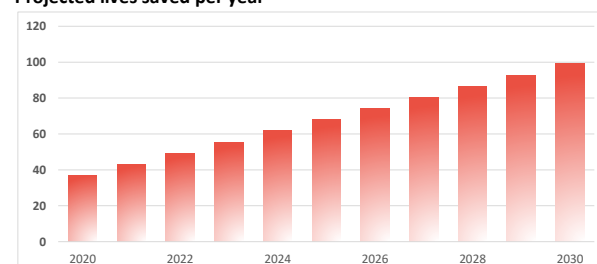
*\*Lower middle income*

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

Costs per year



Projected lives saved per year



# DJIBOUTI

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 No information

Quality of mortality registration\*\*\* 2007-2016 No coverage

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 0.0

# of mammographs<sup>a</sup> 2020 59.3

# of CT scanners<sup>a</sup> 2020 59.3

# of MRI scanners<sup>a</sup> 2020 14.8

# of PET or PET/CT scanners<sup>a</sup> 2020 0.0

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 n/a

# of radiation oncologist<sup>a</sup> 2019 n/a

# of medical physicist<sup>a</sup> 2019 0.0

# of surgeons<sup>a</sup> 2013 252.2

# of radiologist<sup>a</sup> 2019 n/a

# of nuclear medicine physician<sup>a</sup> 2019 0.0

# of medical & pathology lab scientists<sup>a</sup> 2005 44.5

### FORMULATING RESPONSE

Integrated NCD plan 2019 n/a

NCCP (including cancer types) 2019 not in effect

MPOWER measures fully implemented and achieved 2018 2

Cancer management guidelines 2019 yes

Palliative care included in their operational, integrated NCD plan 2019 n/a

# of treatment services (surgery, radiotherapy, chemotherapy) 2019 1

Breast cancer screening program 2019 yes

Breast cancer screening program: Starting age, target population 2019 50

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

Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood) 2019 0 cancer(s)

Pathology services 2019 generally available

Bone marrow transplantation capacity 2019 generally not available

Palliative care availability: community/home-based care 2019 generally not available

Availability of opioids\* for pain management 2015-2017 0

\*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

#### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 n/a

Cervical cancer screening 2019 yes

Screening programme type 2019 organised

Screening programme method 2019 PAP smear

Screening participation rates 2019 10%-50%

Early detection programme/guidelines 2019 no

Defined referral system 2019 no

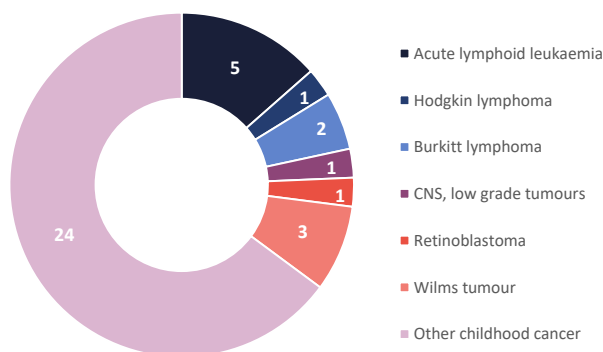
#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 37

Early detection programme/guidelines 2019 no

Defined referral system 2019 no

#### Annual cancer cases (0-14 years old)



\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

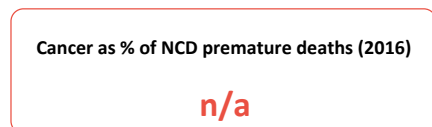
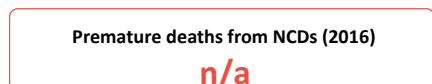
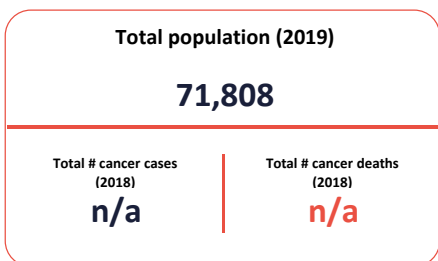
\*\*\*The mortality estimates for this country have a high degree of uncertainty because they are not based on any national NCD mortality data



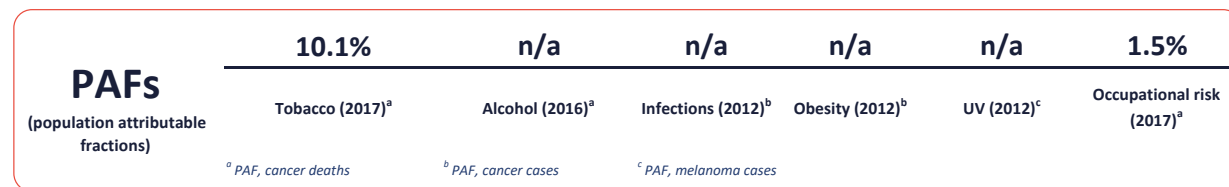
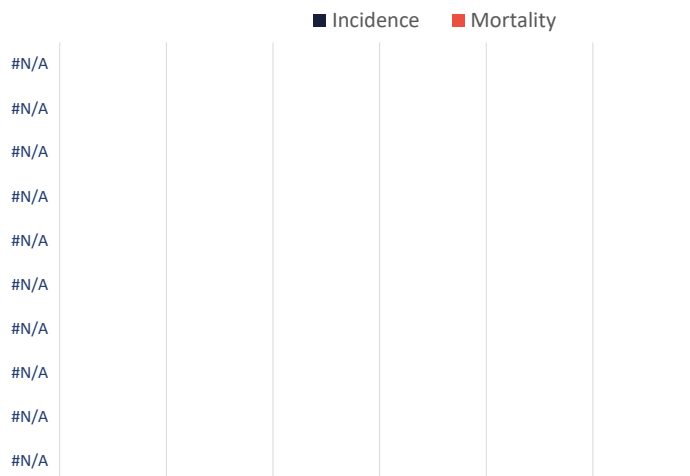
# DOMINICA

Cancer Country Profile 2020

## BURDEN OF CANCER

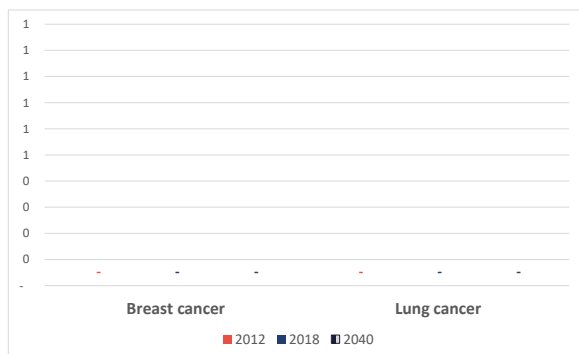


### Most common cancer cases (2018)

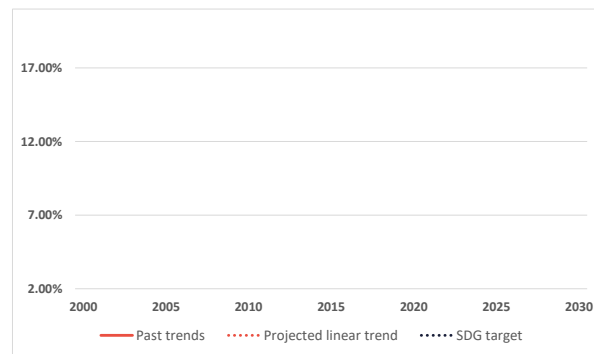


## TRENDS

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



Probability of premature death from cancer per year

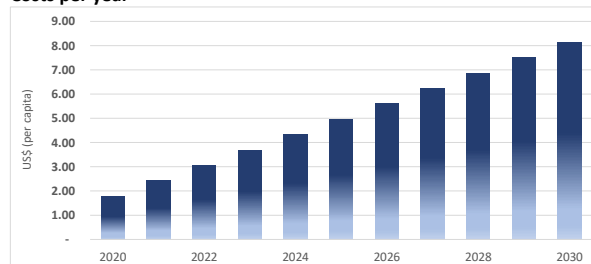


## INVESTMENT CASE (2019)

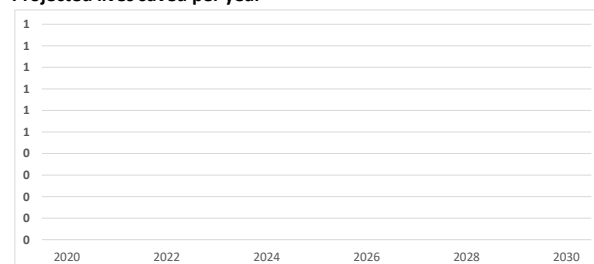
\*Upper middle income

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 No information

Quality of mortality registration\*\*\* 2007-2016 Medium

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 n/a# of mammographs<sup>a</sup> 2020 n/a# of CT scanners<sup>a</sup> 2020 n/a# of MRI scanners<sup>a</sup> 2020 n/a# of PET or PET/CT scanners<sup>a</sup> 2020 n/a

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 yes

# of radiation oncologist<sup>a</sup> 2019 n/a# of medical physicist<sup>a</sup> 2019 n/a# of surgeons<sup>a</sup> 2014 n/a# of radiologist<sup>a</sup> 2019 n/a# of nuclear medicine physician<sup>a</sup> 2019 n/a# of medical & pathology lab scientists<sup>a</sup> n/a n/a

## FORMULATING RESPONSE

Integrated NCD plan 2019 under development

NCCP (including cancer types) 2019 n/a

MPOWER measures fully implemented and achieved 2018 0

Cancer management guidelines 2019 yes

Palliative care included in their operational, integrated NCD plan 2019 no

# of treatment services (surgery, radiotherapy, chemotherapy) 2019 2

Breast cancer screening program 2019 no

Breast cancer screening program: Starting age, target population 2019 n/a

# Public cancer centres per 10,000 cancer patients 2019 n/a

Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood) 2019 0 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 115

\*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day

## GLOBAL INITIATIVES

## Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 n/a

Cervical cancer screening 2019 yes

Screening programme type 2019 opportunistic

Screening programme method 2019 PAP smear

Screening participation rates 2019 &gt;50% and &lt;70%

Early detection programme/guidelines 2019 no

Defined referral system 2019 no

## Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 n/a

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 incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

# DENMARK

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**5,771,877**

Total # cancer cases  
(2018)

**40,796**

Total # cancer deaths  
(2018)

**17,122**

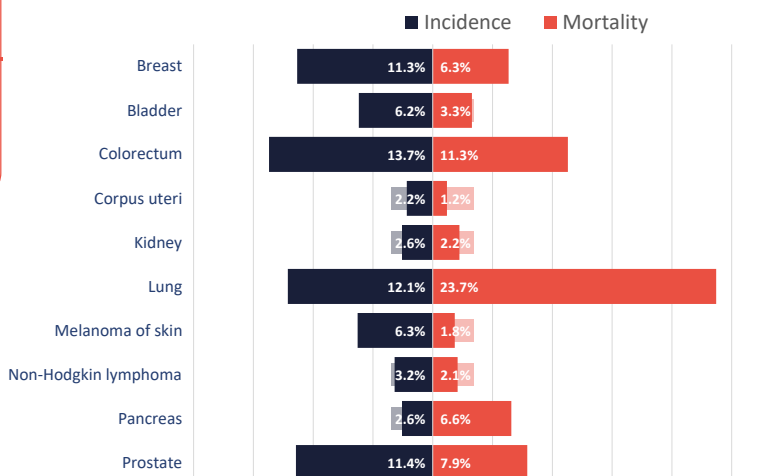
Premature deaths from NCDs (2016)

**11,140**

Cancer as % of NCD premature deaths (2016)

**49.2%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**31.6%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**7.5%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**3.9%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**4.3%**

Obesity (2012)<sup>b</sup>

**91.2%**

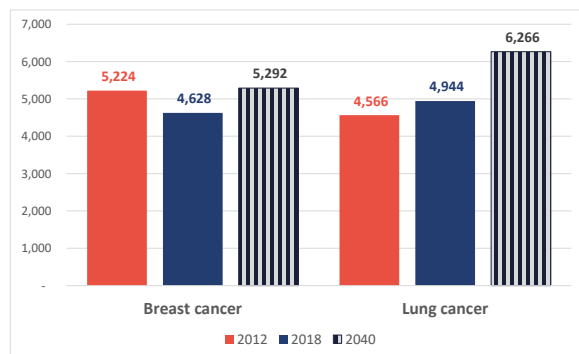
UV (2012)<sup>c</sup>

**8.1%**

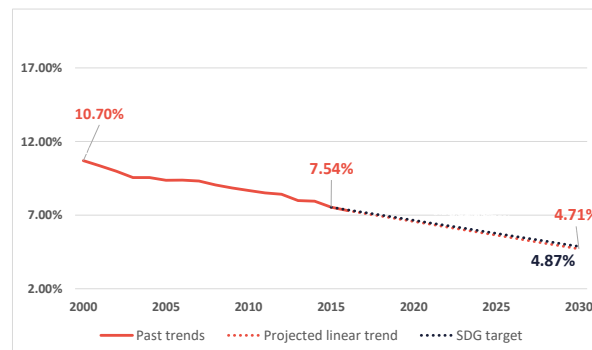
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

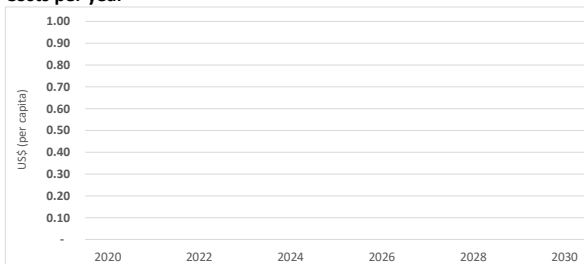


## INVESTMENT CASE (2019)

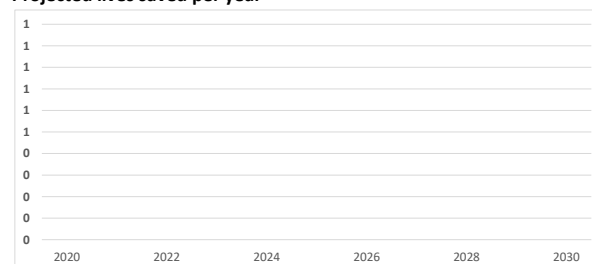
*\*High income*

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

Costs per year



Projected lives saved per year



# DENMARK

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR
Quality of mortality registration***	2007-2016	High
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	12.7
# of mammographs <sup>a</sup>	2020	24.3
# of CT scanners <sup>a</sup>	2020	56.4
# of MRI scanners <sup>a</sup>	2020	37.7
# of PET or PET/CT scanners <sup>a</sup>	2020	10.3

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	43.6
# of medical physicist <sup>a</sup>	2019	43.6
# of surgeons <sup>a</sup>	2012	613.1
# of radiologist <sup>a</sup>	2019	156.3
# of nuclear medicine physician <sup>a</sup>	2019	26.5
# of medical & pathology lab scientists <sup>a</sup>	n/a	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	2.5
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	11960
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	50			

### GLOBAL INITIATIVES

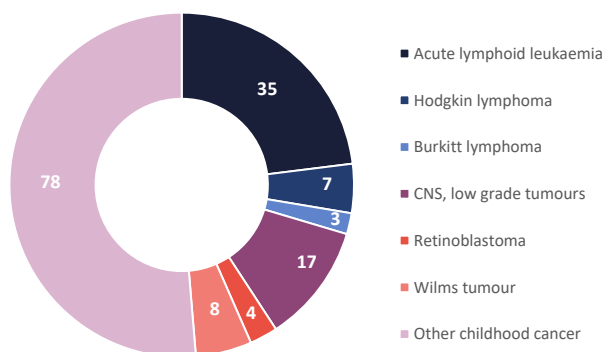
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	54.3
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	152
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Annual cancer cases (0-14 years old)



# DOMINICAN REPUBLIC

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**10,738,957**

Total # cancer cases  
(2018)

**17,988**

Total # cancer deaths  
(2018)

**10,896**

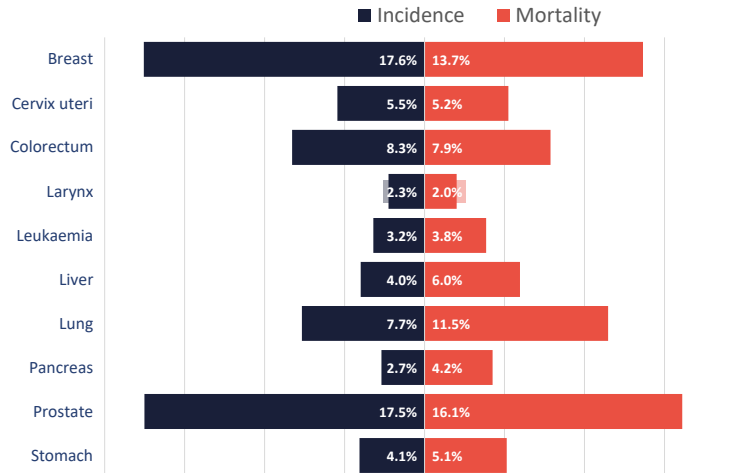
Premature deaths from NCDs (2016)

**19,362**

Cancer as % of NCD premature deaths (2016)

**24.5%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**18.7%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**5.0%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**19.4%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**2.2%**

Obesity (2012)<sup>b</sup>

**0.0%**

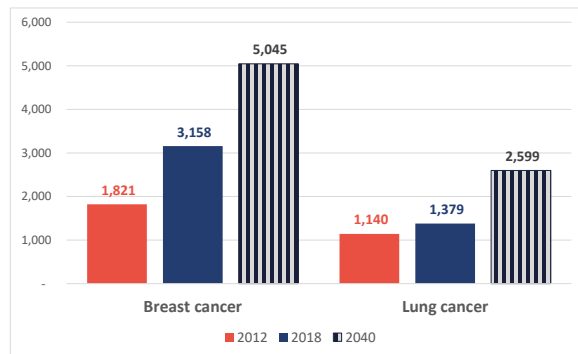
UV (2012)<sup>c</sup>

**1.2%**

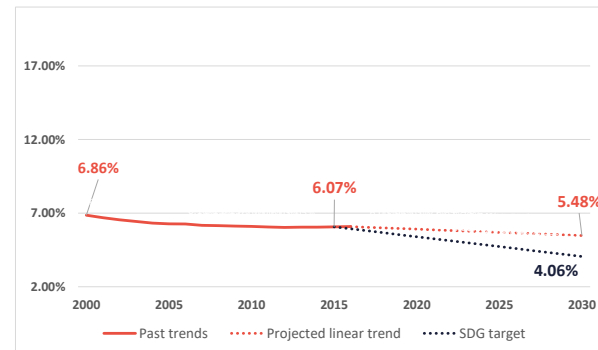
Occupational risk  
(2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

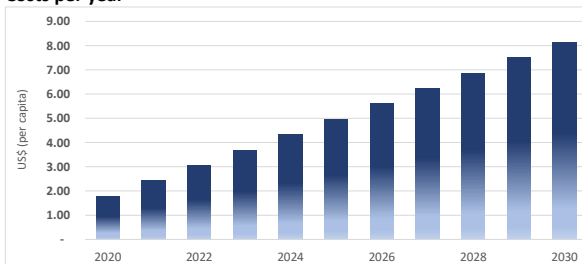


## INVESTMENT CASE (2019)

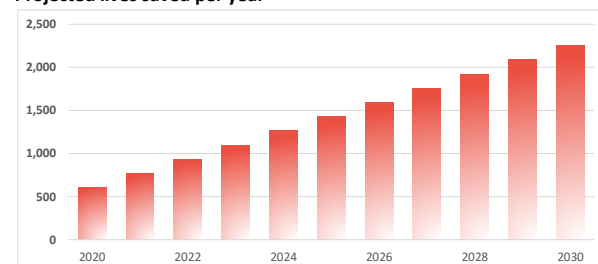
<sup>a</sup>Upper middle income

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

### Costs per year



### Projected lives saved per year



# DOMINICAN REPUBLIC

Cancer Country Profile 2020

## HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\*

2019 Registration activity

Quality of mortality registration\*\*\*

2007-2016

Low

# of external beam radiotherapy (photon,electron)<sup>a</sup>

2019

11.7

# of mammographs<sup>a</sup>

2020

97.8

# of CT scanners<sup>a</sup>

2020

78.4

# of MRI scanners<sup>a</sup>

2020

n/a

# of PET or PET/CT scanners<sup>a</sup>

2020

2.8

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer

2019

yes

# of radiation oncologist<sup>a</sup>

2019

n/a

# of medical physicist<sup>a</sup>

2019

5.6

# of surgeons<sup>a</sup>

n/a

n/a

# of radiologist<sup>a</sup>

2019

77.8

# of nuclear medicine physician<sup>a</sup>

2019

7.2

# of medical & pathology lab scientists<sup>a</sup>

n/a

n/a

## FORMULATING RESPONSE

Integrated NCD plan

2019

operational

NCCP (including cancer types)

2019

n/a

MPOWER measures fully implemented and achieved

2018

0

Cancer management guidelines

2019

yes

Palliative care included in their operational, integrated NCD plan

2019

no

# of treatment services (surgery, radiotherapy, chemotherapy)

2019

3

Breast cancer screening program

2019

yes

Breast cancer screening program: Starting age, target population

2019

35

# Public cancer centres per 10,000 cancer patients

2019

0.6

Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)

2019

2 cancer(s)

Pathology services

2019

generally available

Bone marrow transplantation capacity

2019

generally not available

Palliative care availability: community/home-based care

2019

generally not available

Availability of opioids\* for pain management

2015-2017

71

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

## GLOBAL INITIATIVES

### Elimination of Cervical Cancer

HPV vaccination programme coverage

2018

5.7

Cervical cancer screening

2019

yes

Screening programme type

2019

opportunistic

Screening programme method

2019

PAP smear

Screening participation rates

2019

70% or more

Early detection programme/guidelines

2019

yes

Defined referral system

2019

yes

### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)

2020

435

Early detection programme/guidelines

2019

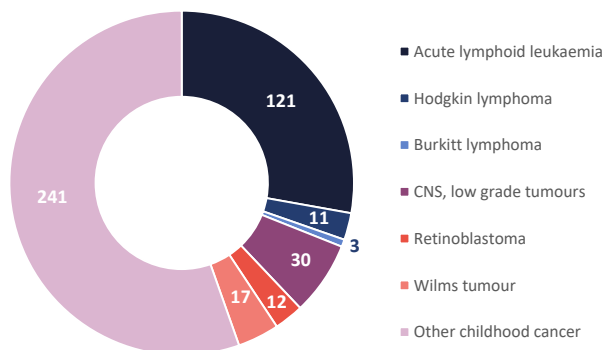
no

Defined referral system

2019

no

Annual cancer cases (0-14 years old)



\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

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

# ALGERIA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**43,053,054**

Total # cancer cases  
(2018)

**53,076**

Total # cancer deaths  
(2018)

**29,453**

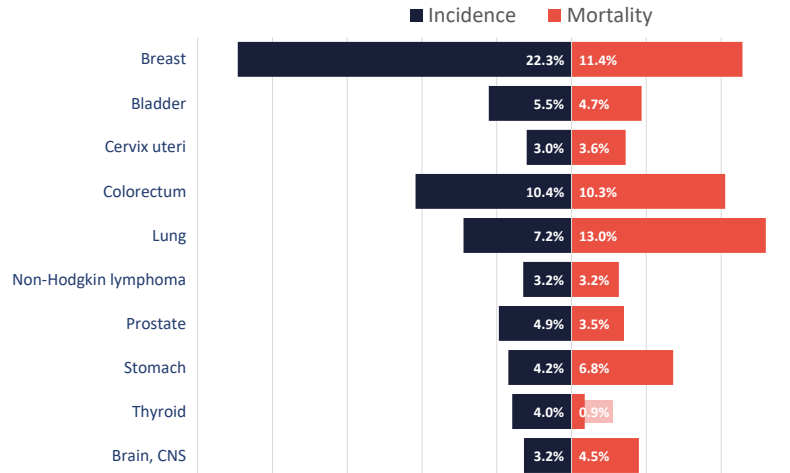
Premature deaths from NCDs (2016)

**50,051**

Cancer as % of NCD premature deaths (2016)

**32.0%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**18.6%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**1.1%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**12.9%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**3.3%**

Obesity (2012)<sup>b</sup>

**3.0%**

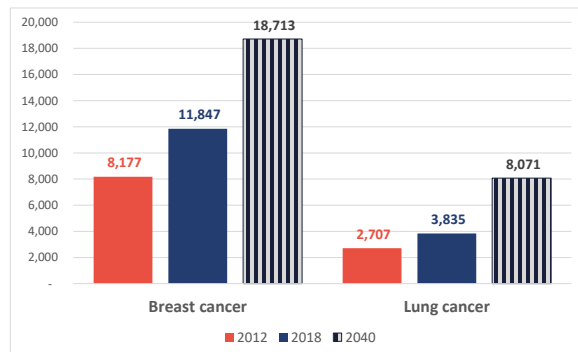
UV (2012)<sup>c</sup>

**1.4%**

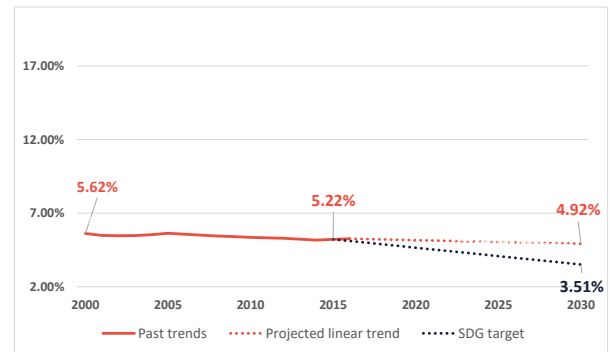
Occupational risk  
(2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

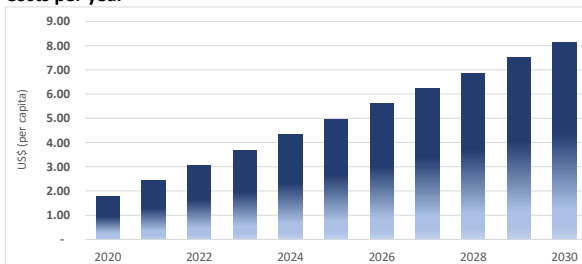


## INVESTMENT CASE (2019)

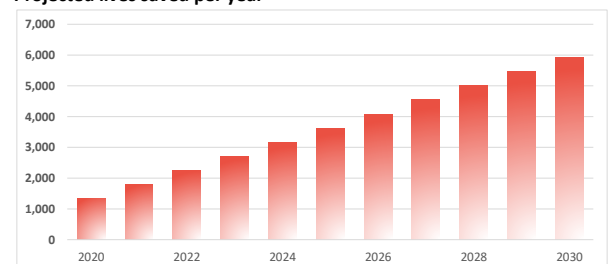
<sup>a</sup>Upper middle income

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

Costs per year



Projected lives saved per year



# ALGERIA

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 **High quality PBCR**

Quality of mortality registration\*\*\* 2007-2016 **No coverage**

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 **7.0**

# of mammographs<sup>a</sup> 2020 **52.9**

# of CT scanners<sup>a</sup> 2020 **108.1**

# of MRI scanners<sup>a</sup> 2020 **28.3**

# of PET or PET/CT scanners<sup>a</sup> 2020 **1.1**

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 **yes**

# of radiation oncologist<sup>a</sup> 2019 **n/a**

# of medical physicist<sup>a</sup> 2019 **18.8**

# of surgeons<sup>a</sup> 2013 **603.7**

# of radiologist<sup>a</sup> 2019 **263.8**

# of nuclear medicine physician<sup>a</sup> 2019 **20.7**

# of medical & pathology lab scientists<sup>a</sup> 2007 **n/a**

### FORMULATING RESPONSE

Integrated NCD plan 2019 **operational**

NCCP (including cancer types) 2019 **operational**

MPOWER measures fully implemented and achieved 2018 **0**

Cancer management guidelines 2019 **yes**

Palliative care included in their operational, integrated NCD plan 2019 **no**

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

Breast cancer screening program 2019 **yes**

Breast cancer screening program: Starting age, target population 2019 **40**

# Public cancer centres per 10,000 cancer patients 2019 **2.8**

Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood) 2019 **1 cancer(s)**

Pathology services 2019 **generally available**

Bone marrow transplantation capacity 2019 **generally available**

Palliative care availability: community/home-based care 2019 **generally not available**

Availability of opioids\* for pain management 2015-2017 **48**

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

#### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 **n/a**

Cervical cancer screening 2019 **no**

Screening programme type 2019 **n/a**

Screening programme method 2019 **n/a**

Screening participation rates 2019 **n/a**

Early detection programme/guidelines 2019 **no**

Defined referral system 2019 **yes**

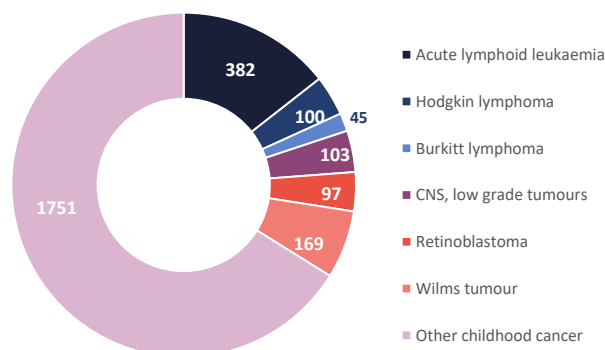
#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 **2647**

Early detection programme/guidelines 2019 **no**

Defined referral system 2019 **no**

#### Annual cancer cases (0-14 years old)



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



# ECUADOR

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**17,373,657**

Total # cancer cases  
(2018)

**28,058**

Total # cancer deaths  
(2018)

**14,559**

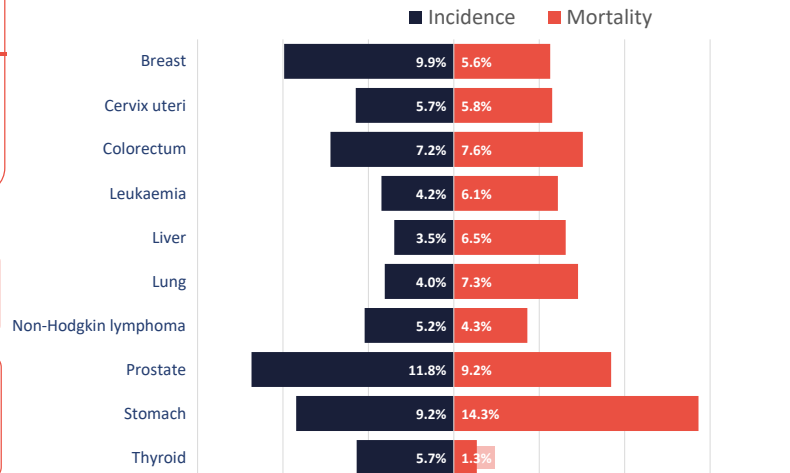
Premature deaths from NCDs (2016)

**21,491**

Cancer as % of NCD premature deaths (2016)

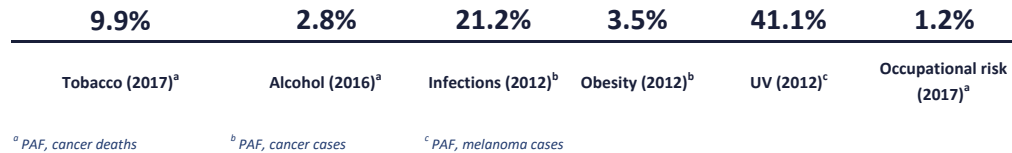
**29.4%**

### Most common cancer cases (2018)



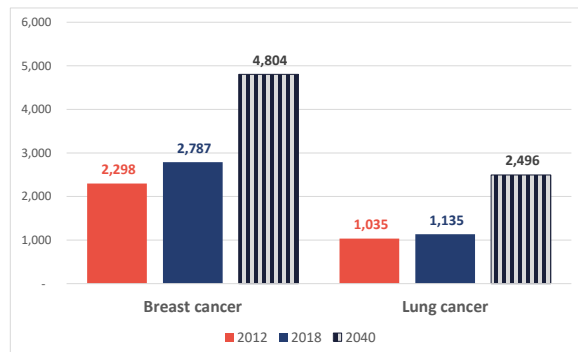
### PAFs

(population attributable fractions)

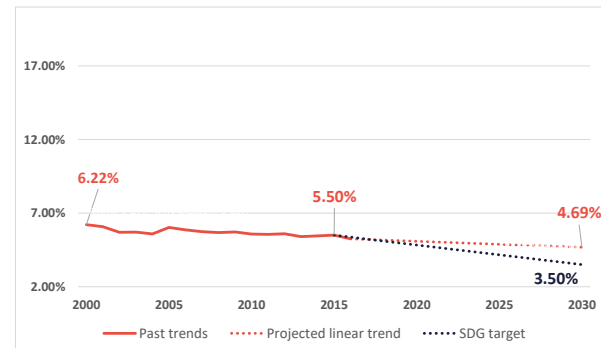


## TRENDS

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



### Probability of premature death from cancer per year

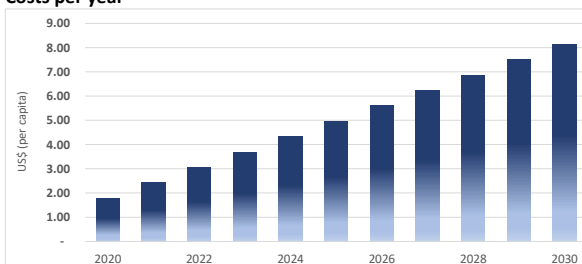


## INVESTMENT CASE (2019)

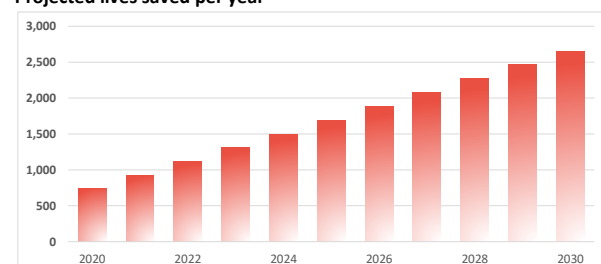
*\*Upper middle income*

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

### Costs per year



### Projected lives saved per year



# ECUADOR

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 **High quality PBCR**

Quality of mortality registration\*\*\* 2007-2016 **Medium**

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 **7.8**

# of mammographs<sup>a</sup> 2020 **10.7**

# of CT scanners<sup>a</sup> 2020 **15.0**

# of MRI scanners<sup>a</sup> 2020 **7.1**

# of PET or PET/CT scanners<sup>a</sup> 2020 **1.1**

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 **yes**

# of radiation oncologist<sup>a</sup> 2019 **n/a**

# of medical physicist<sup>a</sup> 2019 **2.9**

# of surgeons<sup>a</sup> 2014 **1946.3**

# of radiologist<sup>a</sup> 2019 **154.0**

# of nuclear medicine physician<sup>a</sup> 2019 **3.6**

# of medical & pathology lab scientists<sup>a</sup> 2015 **n/a**

### FORMULATING RESPONSE

Integrated NCD plan 2019 **not in effect**

NCCP (including cancer types) 2019 **operational**

MPOWER measures fully implemented and achieved 2018 **2**

Cancer management guidelines 2019 **yes**

Palliative care included in their operational, integrated NCD plan 2019 **no**

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

Breast cancer screening program 2019 **yes**

Breast cancer screening program: Starting age, target population 2019 **50**

# 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 **81**

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

#### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 **90.8**

Cervical cancer screening 2019 **yes**

Screening programme type 2019 **organised**

Screening programme method 2019 **PAP smear**

Screening participation rates 2019 **<10%**

Early detection programme/guidelines 2019 **yes**

Defined referral system 2019 **yes**

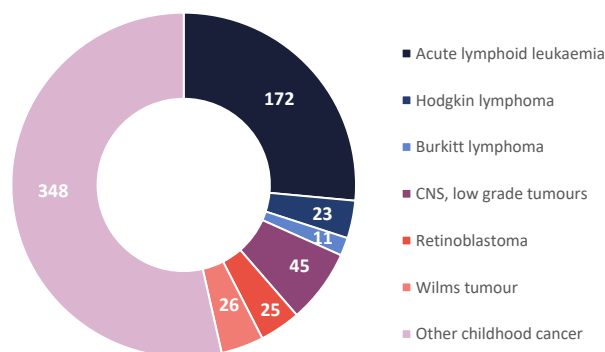
#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 **650**

Early detection programme/guidelines 2019 **no**

Defined referral system 2019 **yes**

#### Annual cancer cases (0-14 years old)



## BURDEN OF CANCER

Total population (2019)

**100,388,076**

Total # cancer cases (2018)

**128,892**

Total # cancer deaths (2018)

**85,432**

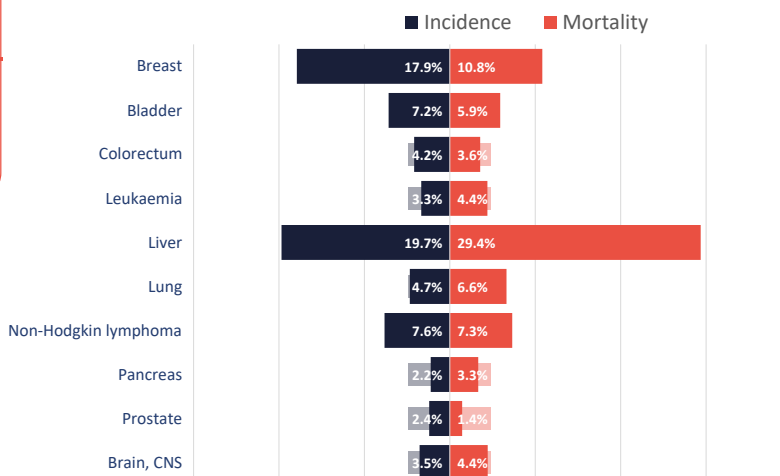
Premature deaths from NCDs (2016)

**240,764**

Cancer as % of NCD premature deaths (2016)

**19.4%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**18.8%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**2.0%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**21.4%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**4.4%**

Obesity (2012)<sup>b</sup>

**0.0%**

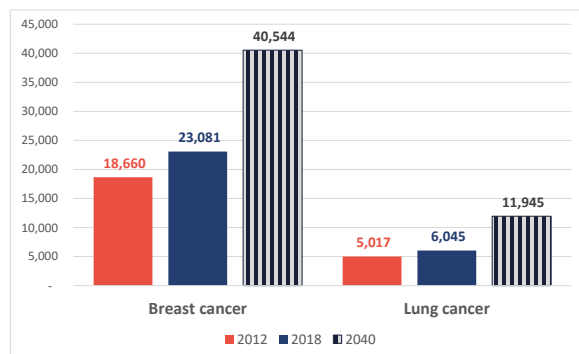
UV (2012)<sup>c</sup>

**1.3%**

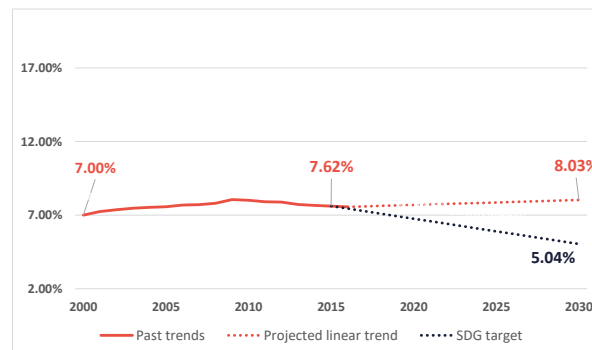
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

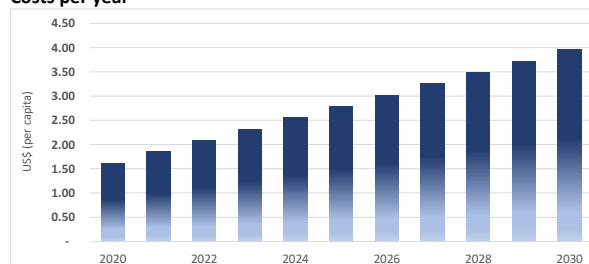


## INVESTMENT CASE (2019)

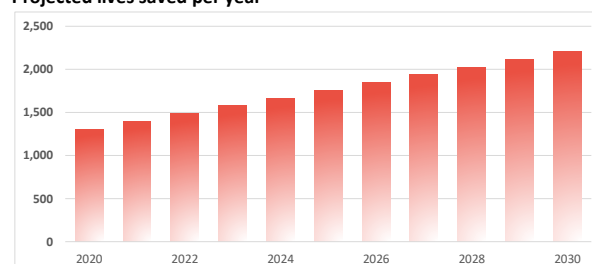
*\*Lower middle income*

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR
Quality of mortality registration***	2007-2016	Low
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	9.2
# of mammographs <sup>a</sup>	2020	26.4
# of CT scanners <sup>a</sup>	2020	54.3
# of MRI scanners <sup>a</sup>	2020	15.1
# of PET or PET/CT scanners <sup>a</sup>	2020	1.5

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	15.5
# of surgeons <sup>a</sup>	2014	1859.4
# of radiologist <sup>a</sup>	2019	283.2
# of nuclear medicine physician <sup>a</sup>	2019	8.1
# of medical & pathology lab scientists <sup>a</sup>	2017	164.6

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	n/a
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	1 cancer(s)
MPOWER measures fully implemented and achieved	2018	3	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	114
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	40			

### GLOBAL INITIATIVES

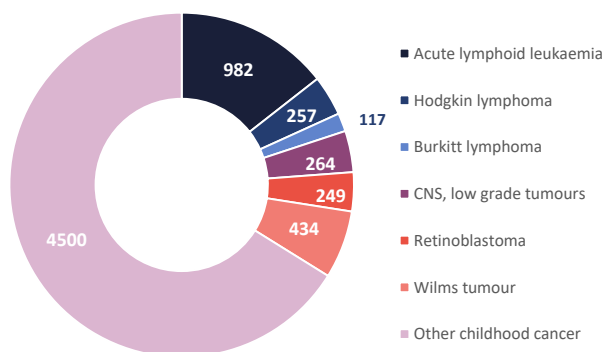
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	no
Screening programme type	2019	n/a
Screening programme method	2019	n/a
Screening participation rates	2019	n/a
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	6803
Early detection programme/guidelines	2019	no
Defined referral system	2019	don't know

#### Annual cancer cases (0-14 years old)



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

## BURDEN OF CANCER

Total population (2019)

**3,497,117**

Total # cancer cases  
(2018)

**3,144**

Total # cancer deaths  
(2018)

**2,350**

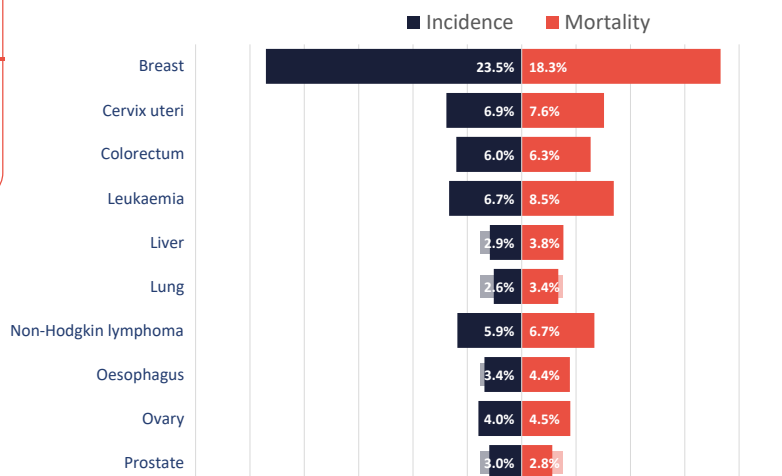
Premature deaths from NCDs (2016)

**7,416**

Cancer as % of NCD premature deaths (2016)

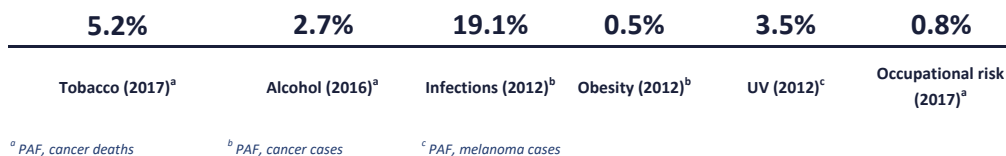
**25.1%**

## Most common cancer cases (2018)



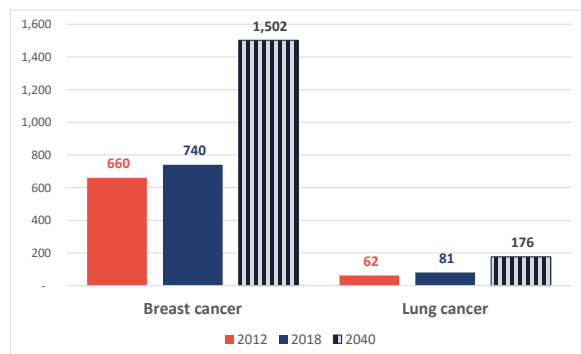
## PAFs

(population attributable fractions)

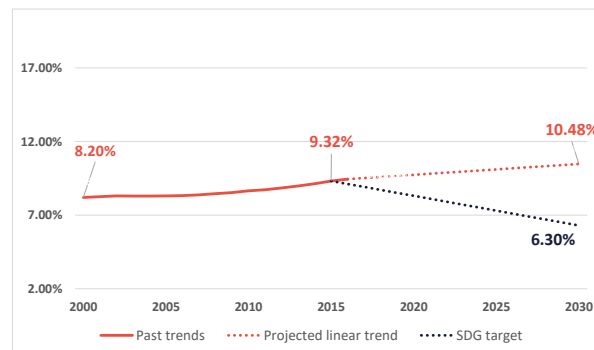


## TRENDS

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



### Probability of premature death from cancer per year

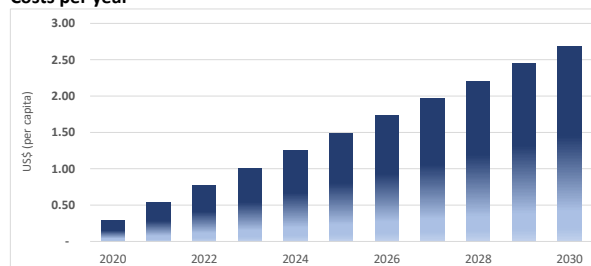


## INVESTMENT CASE (2019)

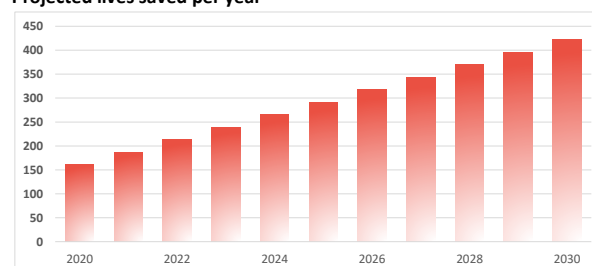
*\*Low income*

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

### Costs per year



### Projected lives saved per year



### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 No information

Quality of mortality registration\*\*\* 2007-2016 No coverage

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 0.0

# of mammographs<sup>a</sup> 2020 12.7

# of CT scanners<sup>a</sup> 2020 6.4

# of MRI scanners<sup>a</sup> 2020 3.2

# of PET or PET/CT scanners<sup>a</sup> 2020 0.0

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 yes

# of radiation oncologist<sup>a</sup> 2019 n/a

# of medical physicist<sup>a</sup> 2019 3.2

# of surgeons<sup>a</sup> n/a n/a

# of radiologist<sup>a</sup> 2019 n/a

# of nuclear medicine physician<sup>a</sup> 2019 0.0

# of medical & pathology lab scientists<sup>a</sup> 2004 54.1

### FORMULATING RESPONSE

Integrated NCD plan 2019 operational

NCCP (including cancer types) 2019 n/a

MPOWER measures fully implemented and achieved 2018 1

Cancer management guidelines 2019 no

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

# of treatment services (surgery, radiotherapy, chemotherapy) 2019 0

Breast cancer screening program 2019 no

Breast cancer screening program: Starting age, target population 2019 n/a

# Public cancer centres per 10,000 cancer patients 2019 n/a

Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood) 2019 0 cancer(s)

Pathology services 2019 generally available

Bone marrow transplantation capacity 2019 generally not available

Palliative care availability: community/home-based care 2019 generally not available

Availability of opioids\* for pain management 2015-2017 0

\*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

#### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 n/a

Cervical cancer screening 2019 no

Screening programme type 2019 n/a

Screening programme method 2019 n/a

Screening participation rates 2019 n/a

Early detection programme/guidelines 2019 no

Defined referral system 2019 yes

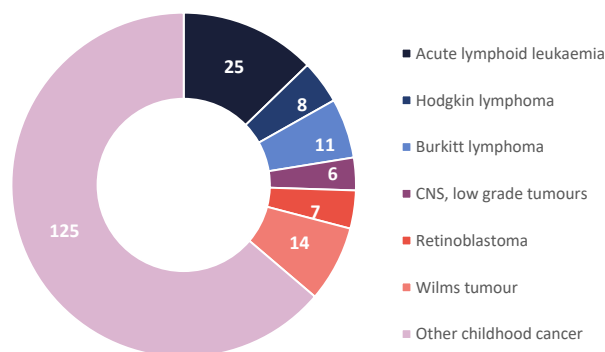
#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 196

Early detection programme/guidelines 2019 no

Defined referral system 2019 no

#### Annual cancer cases (0-14 years old)



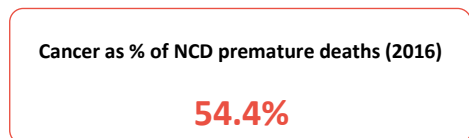
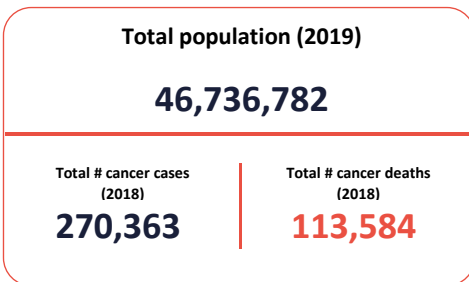
\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

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

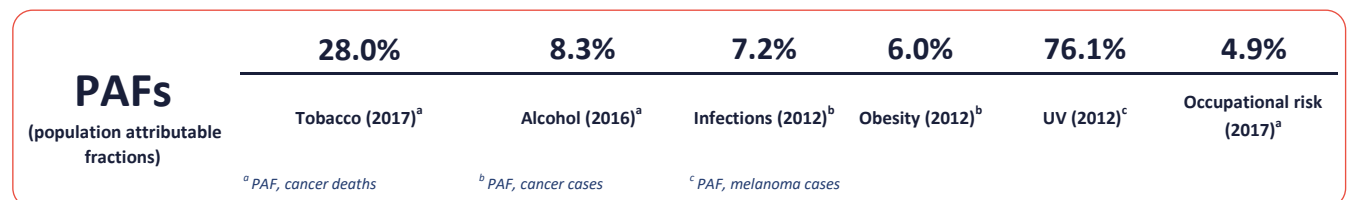
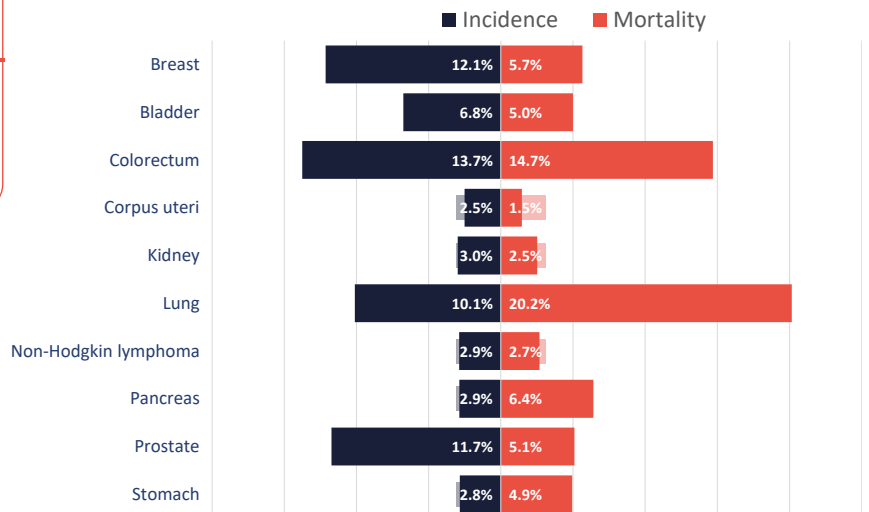
# SPAIN

Cancer Country Profile 2020

## BURDEN OF CANCER

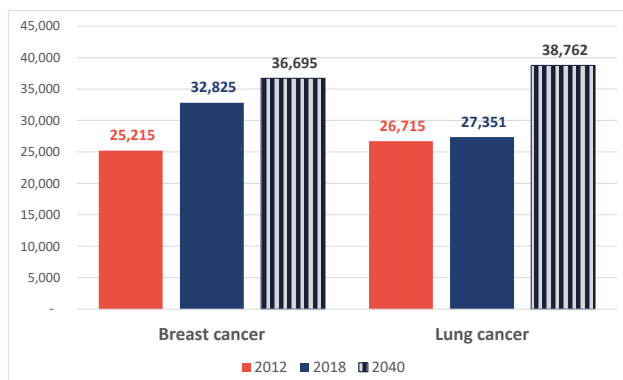


## Most common cancer cases (2018)

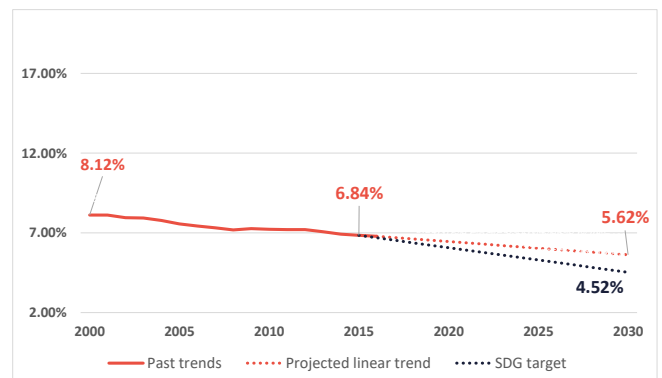


## TRENDS

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



Probability of premature death from cancer per year

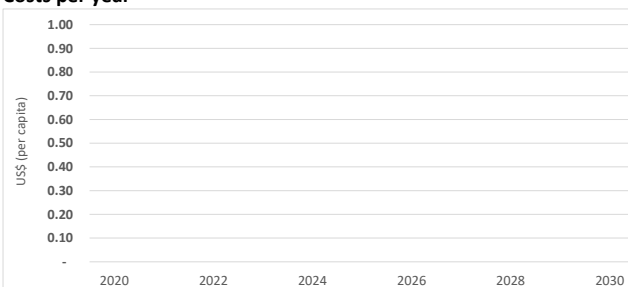


## INVESTMENT CASE (2019)

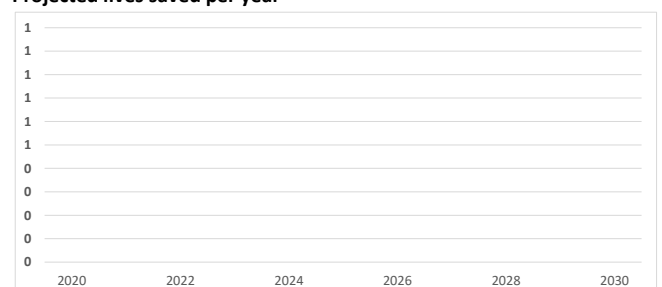
\*High income

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR
Quality of mortality registration***	2007-2016	High
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	10.0
# of mammographs <sup>a</sup>	2020	28.1
# of CT scanners <sup>a</sup>	2020	40.4
# of MRI scanners <sup>a</sup>	2020	33.5
# of PET or PET/CT scanners <sup>a</sup>	2020	3.0

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	25.9
# of medical physicist <sup>a</sup>	2019	31.0
# of surgeons <sup>a</sup>	2014	394.8
# of radiologist <sup>a</sup>	2019	224.7
# of nuclear medicine physician <sup>a</sup>	2019	n/a
# of medical & pathology lab scientists <sup>a</sup>	n/a	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	n/a
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
MPOWER measures fully implemented and achieved	2018	4	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	11391
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day		
Breast cancer screening program: Starting age, target population	2019	50			

### GLOBAL INITIATIVES

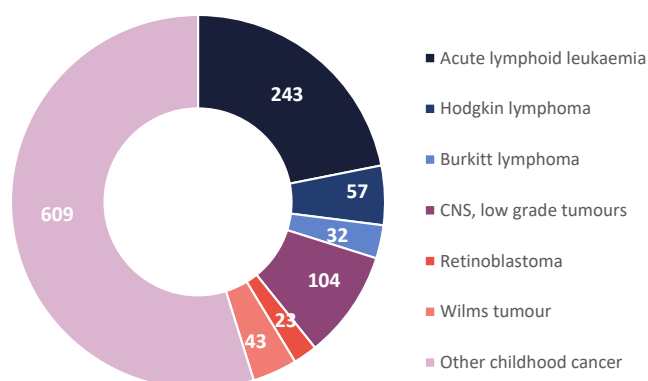
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	68.5
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	HPV test
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	1111
Early detection programme/guidelines	2019	don't know
Defined referral system	2019	yes

#### Annual cancer cases (0-14 years old)





# ESTONIA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**1,325,649**

Total # cancer cases  
(2018)

**7,664**

Total # cancer deaths  
(2018)

**3,916**

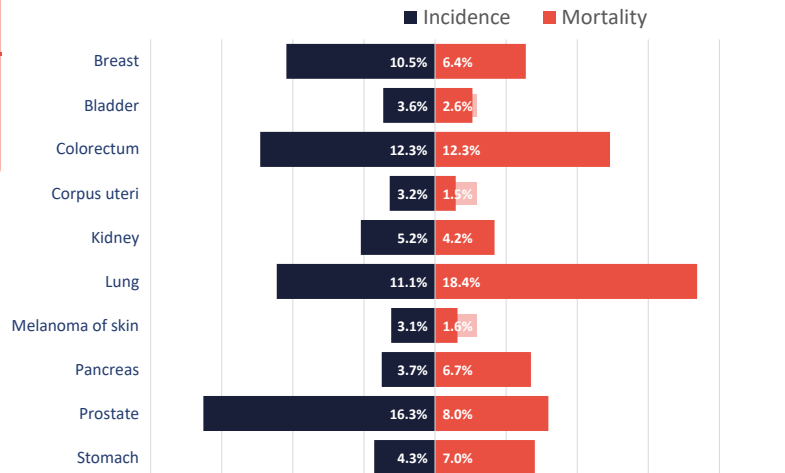
Premature deaths from NCDs (2016)

**3,842**

Cancer as % of NCD premature deaths (2016)

**37.5%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**26.9%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**7.7%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**8.8%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**5.0%**

Obesity (2012)<sup>b</sup>

**79.8%**

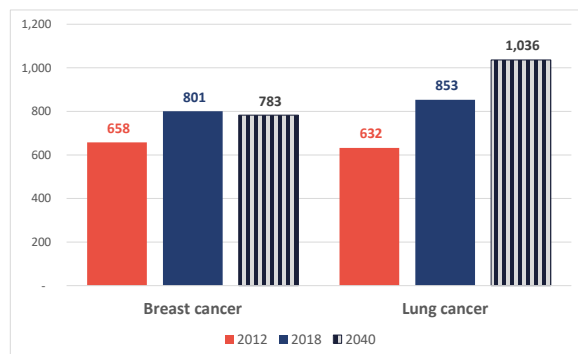
UV (2012)<sup>c</sup>

**2.0%**

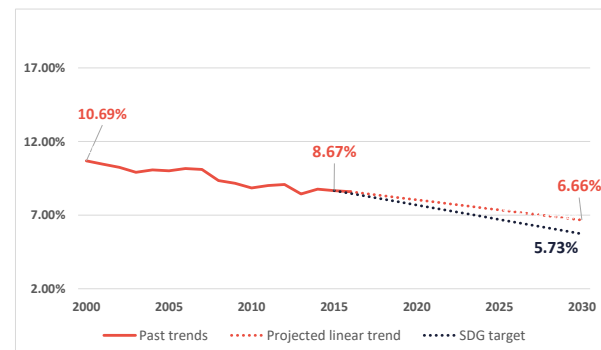
Occupational risk  
(2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

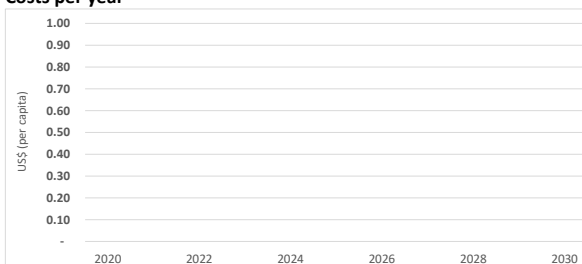


## INVESTMENT CASE (2019)

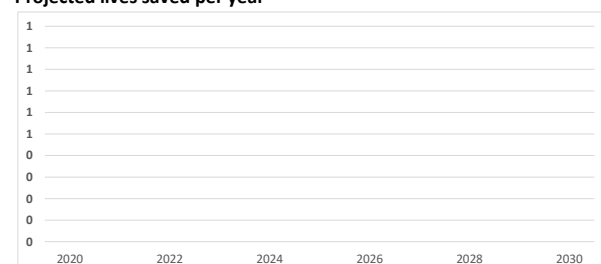
<sup>a</sup>High income

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

### Costs per year



### Projected lives saved per year



# ESTONIA

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR
Quality of mortality registration***	2007-2016	High
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	7.8
# of mammographs <sup>a</sup>	2020	19.6
# of CT scanners <sup>a</sup>	2020	30.0
# of MRI scanners <sup>a</sup>	2020	23.5
# of PET or PET/CT scanners <sup>a</sup>	2020	3.9

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	no
# of radiation oncologist <sup>a</sup>	2019	18.3
# of medical physicist <sup>a</sup>	2019	14.4
# of surgeons <sup>a</sup>	2014	246.6
# of radiologist <sup>a</sup>	2019	200.9
# of nuclear medicine physician <sup>a</sup>	2019	10.4
# of medical & pathology lab scientists <sup>a</sup>	n/a	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	2.6
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	887
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	50			

### GLOBAL INITIATIVES

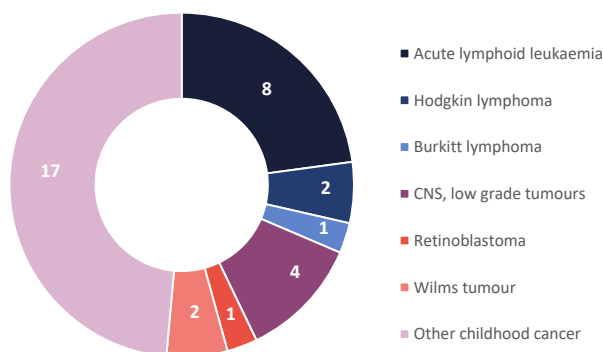
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	44.4
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	35
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Annual cancer cases (0-14 years old)



# ETHIOPIA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**112,078,727**

Total # cancer cases  
(2018)

**67,573**

Total # cancer deaths  
(2018)

**47,954**

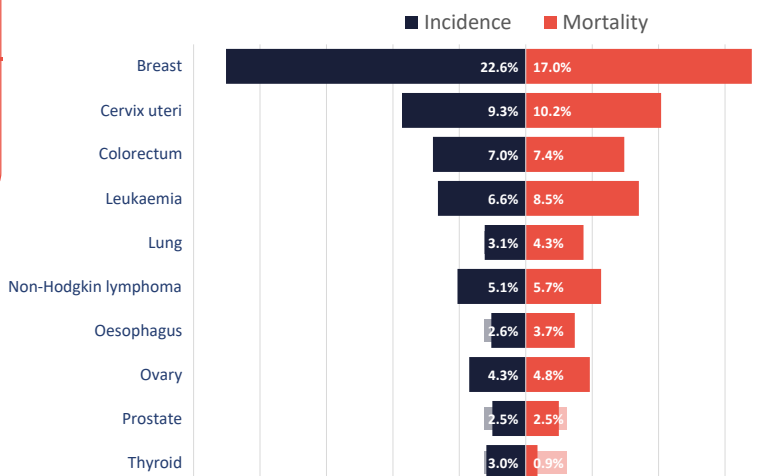
Premature deaths from NCDs (2016)

**119,622**

Cancer as % of NCD premature deaths (2016)

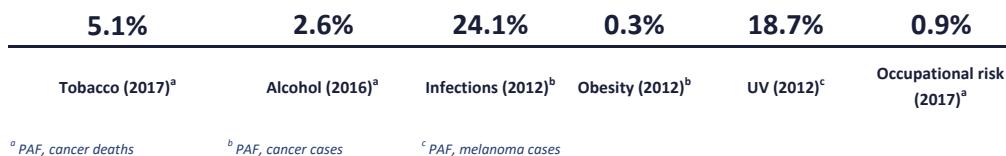
**30.5%**

## Most common cancer cases (2018)



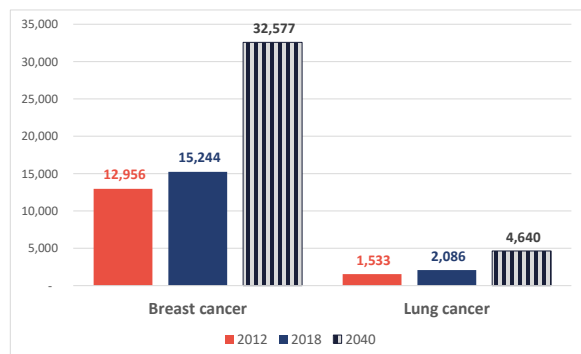
## PAFs

(population attributable fractions)

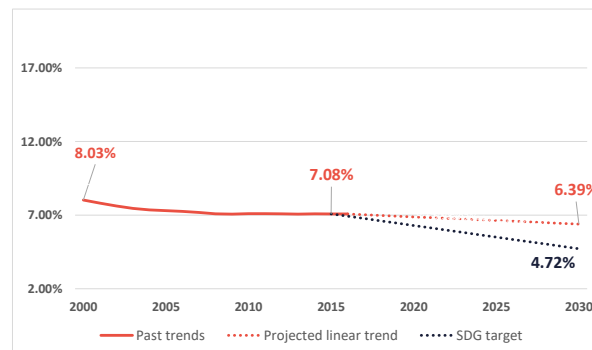


## TRENDS

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



### Probability of premature death from cancer per year

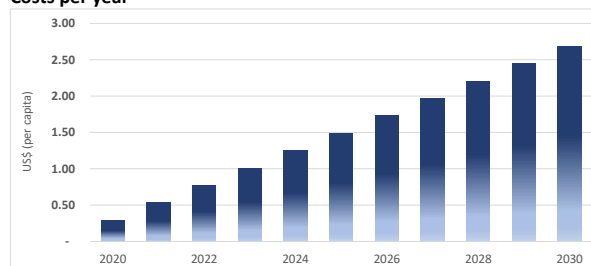


## INVESTMENT CASE (2019)

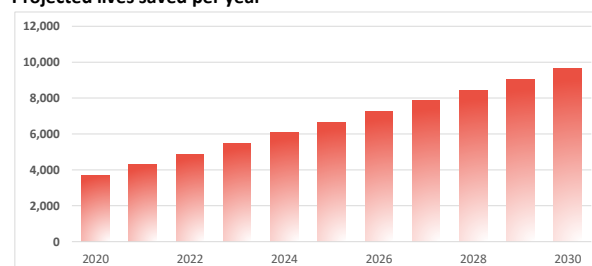
*\*Low income*

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

### Costs per year



### Projected lives saved per year



# ETHIOPIA

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR	<b>WORKFORCE</b>		
Quality of mortality registration***	2007-2016	No coverage	<sup>a</sup> per 10,000 cancer patients Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	0.1	# of radiation oncologist <sup>a</sup>	2019	n/a
# of mammographs <sup>a</sup>	2020	n/a	# of medical physicist <sup>a</sup>	2019	0.6
# of CT scanners <sup>a</sup>	2020	5.0	# of surgeons <sup>a</sup>	2014	51.6
# of MRI scanners <sup>a</sup>	2020	1.0	# of radiologist <sup>a</sup>	2019	23.7
# of PET or PET/CT scanners <sup>a</sup>	2020	0.0	# of nuclear medicine physician <sup>a</sup>	2019	0.1
			# of medical & pathology lab scientists <sup>a</sup>	2009	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	0.1
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally not available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	25
Breast cancer screening program	2019	yes			
Breast cancer screening program: Starting age, target population	2019	40			

\*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

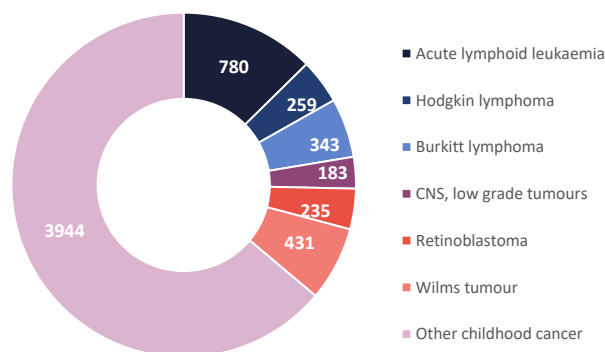
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	0
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
Screening programme method	2019	visual inspection
Screening participation rates	2019	<10%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	6175
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Annual cancer cases (0-14 years old)



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

# FINLAND

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**5,532,159**

Total # cancer cases  
(2018)

**33,271**

Total # cancer deaths  
(2018)

**12,749**

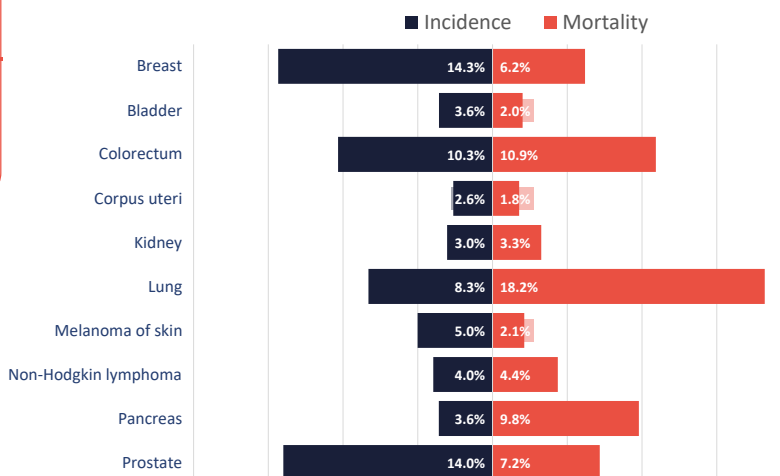
Premature deaths from NCDs (2016)

**11,056**

Cancer as % of NCD premature deaths (2016)

**38.7%**

## Most common cancer cases (2018)



## PAFs

(population attributable fractions)

**19.2%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**6.3%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**4.3%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**5.9%**

Obesity (2012)<sup>b</sup>

**88.5%**

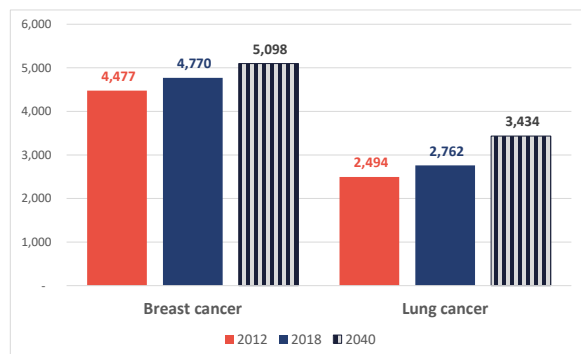
UV (2012)<sup>c</sup>

**6.4%**

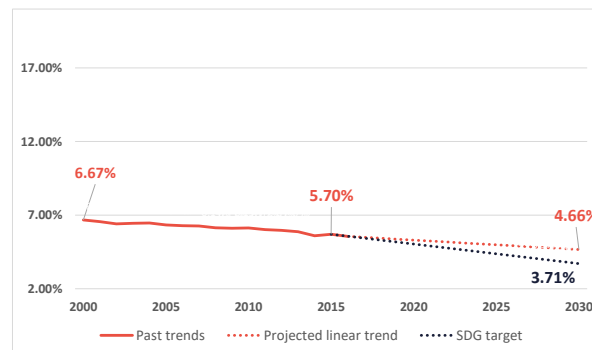
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

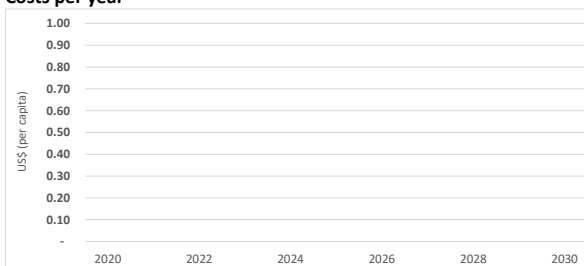


## INVESTMENT CASE (2019)

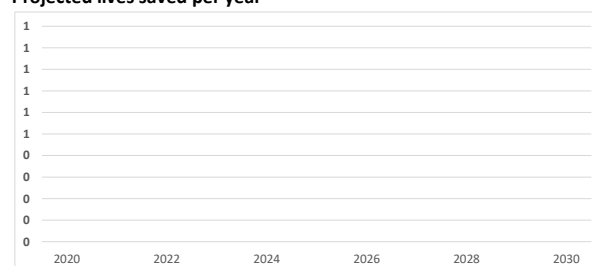
\*High income

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

Costs per year



Projected lives saved per year



# FINLAND

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 **High quality PBCR**

Quality of mortality registration\*\*\* 2007-2016 **High**

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 **13.5**

# of mammographs<sup>a</sup> 2020 **51.7**

# of CT scanners<sup>a</sup> 2020 **40.0**

# of MRI scanners<sup>a</sup> 2020 **44.8**

# of PET or PET/CT scanners<sup>a</sup> 2020 **4.2**

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 **yes**

# of radiation oncologist<sup>a</sup> 2019 **180.3**

# of medical physicist<sup>a</sup> 2019 **54.1**

# of surgeons<sup>a</sup> 2014 **1226.6**

# of radiologist<sup>a</sup> 2019 **215.6**

# of nuclear medicine physician<sup>a</sup> 2019 **90.2**

# of medical & pathology lab scientists<sup>a</sup> 2002 **n/a**

### FORMULATING RESPONSE

Integrated NCD plan 2019 **operational**

NCCP (including cancer types) 2019 **operational**

MPOWER measures fully implemented and achieved 2018 **2**

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 **50**

# Public cancer centres per 10,000 cancer patients 2019 **6.9**

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 available**

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

Availability of opioids\* for pain management 2015-2017 **5519**

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

#### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 **61.9**

Cervical cancer screening 2019 **yes**

Screening programme type 2019 **organised**

Screening programme method 2019 **PAP smear**

Screening participation rates 2019 **70% or more**

Early detection programme/guidelines 2019 **yes**

Defined referral system 2019 **yes**

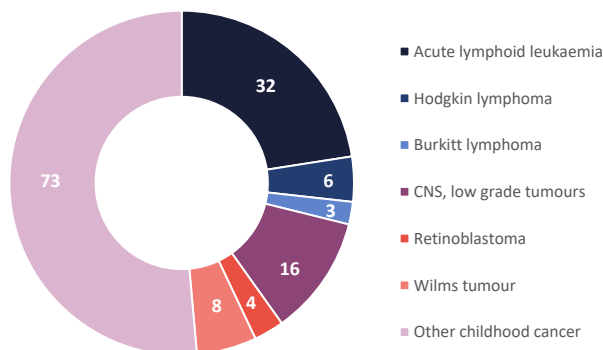
#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 **142**

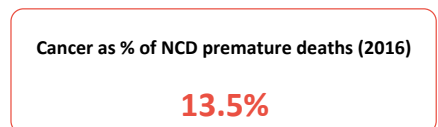
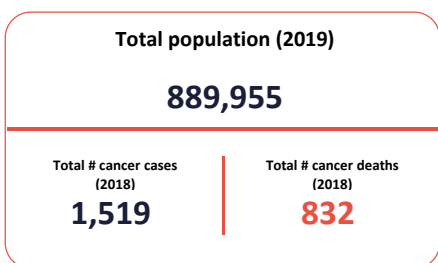
Early detection programme/guidelines 2019 **no**

Defined referral system 2019 **yes**

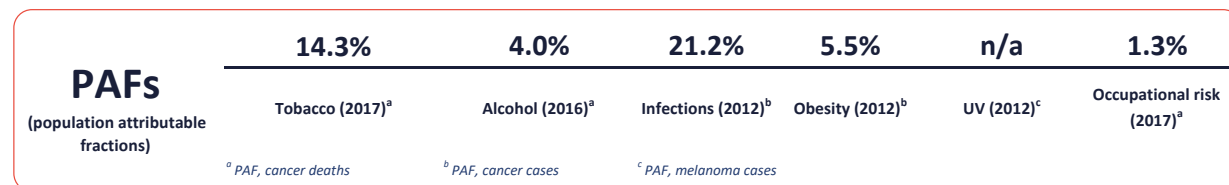
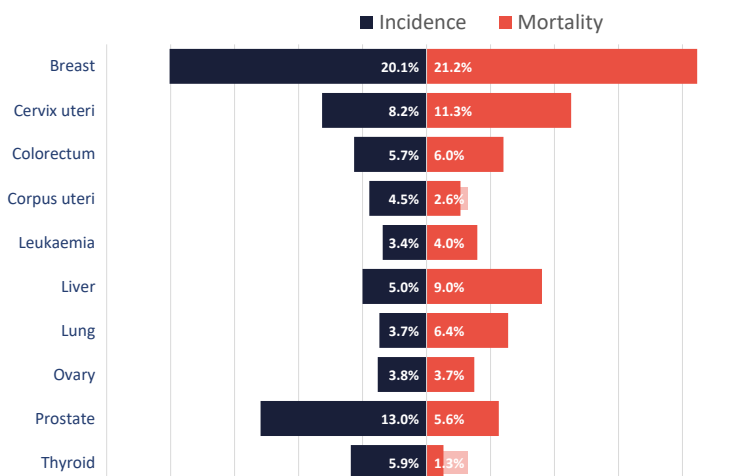
#### Annual cancer cases (0-14 years old)



### BURDEN OF CANCER

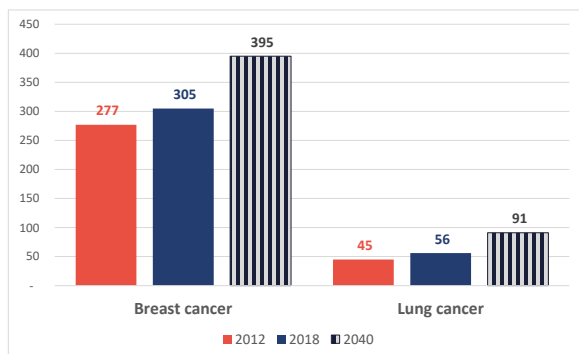


### Most common cancer cases (2018)

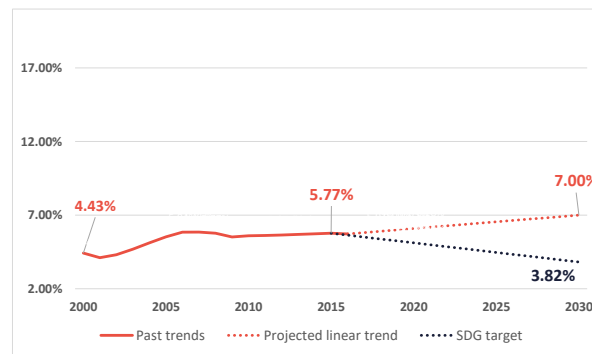


### TRENDS

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



Probability of premature death from cancer per year

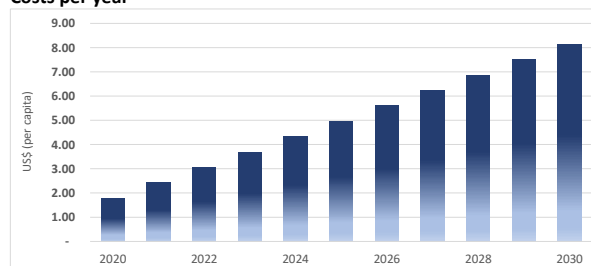


### INVESTMENT CASE (2019)

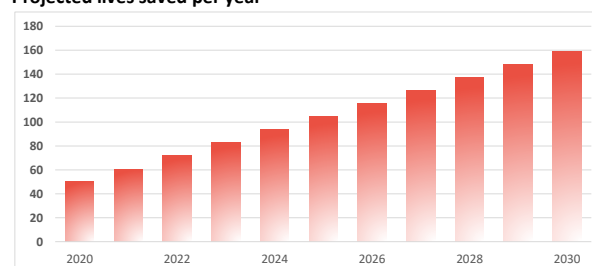
*\*Upper middle income*

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR
Quality of mortality registration***	2007-2016	Medium
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	0.0
# of mammographs <sup>a</sup>	2020	171.2
# of CT scanners <sup>a</sup>	2020	19.7
# of MRI scanners <sup>a</sup>	2020	6.6
# of PET or PET/CT scanners <sup>a</sup>	2020	0.0

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	n/a
# of surgeons <sup>a</sup>	2014	105.3
# of radiologist <sup>a</sup>	2019	n/a
# of nuclear medicine physician <sup>a</sup>	2019	0.0
# of medical & pathology lab scientists <sup>a</sup>	2015	1165.2

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational
NCCP (including cancer types)	2019	operational
MPOWER measures fully implemented and achieved	2018	1
Cancer management guidelines	2019	no
Palliative care included in their operational, integrated NCD plan	2019	no
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	2
Breast cancer screening program	2019	no
Breast cancer screening program: Starting age, target population	2019	n/a

# Public cancer centres per 10,000 cancer patients	2019	19.7
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	1 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	121

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

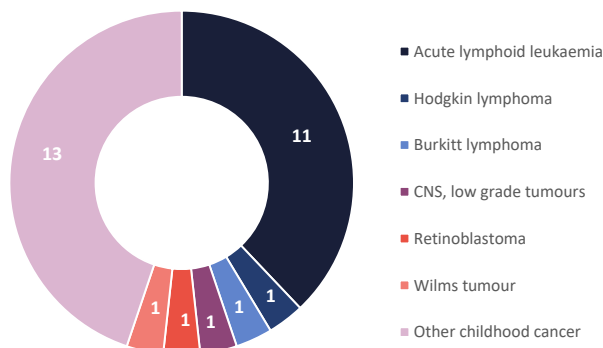
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	46.3
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	10%-50%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	29
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Annual cancer cases (0-14 years old)





# FRANCE

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**65,129,731**

Total # cancer cases  
(2018)

**455,618**

Total # cancer deaths  
(2018)

**182,372**

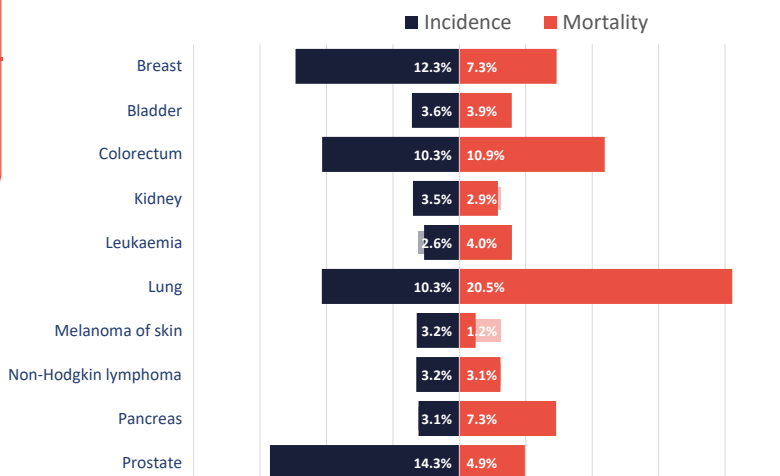
Premature deaths from NCDs (2016)

**112,034**

Cancer as % of NCD premature deaths (2016)

**57.8%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**25.9%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**8.1%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**4.5%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**4.3%**

Obesity (2012)<sup>b</sup>

**83.5%**

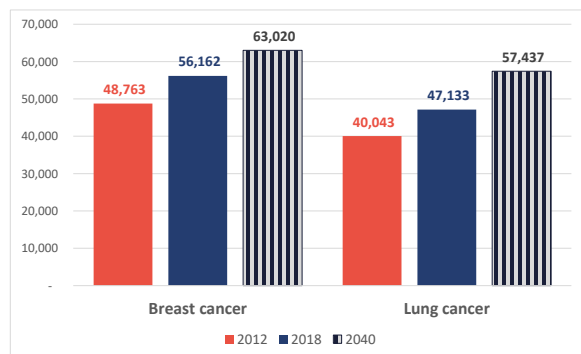
UV (2012)<sup>c</sup>

**8.1%**

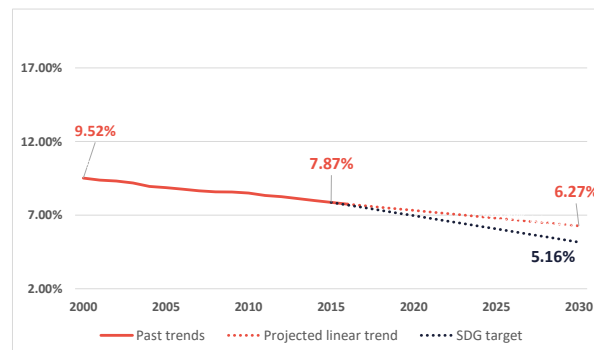
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

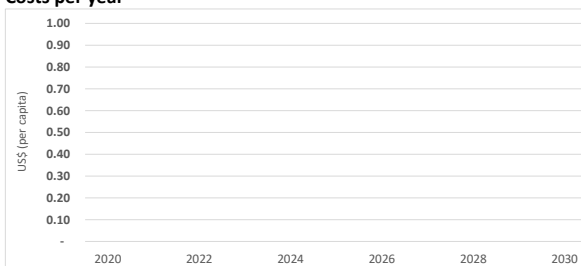


## INVESTMENT CASE (2019)

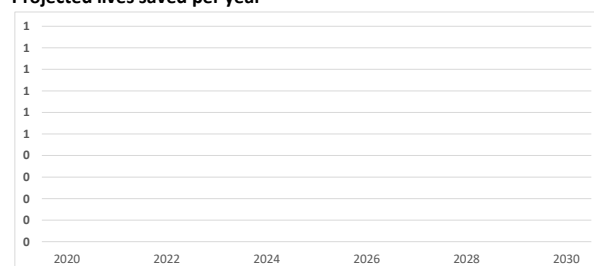
*\*High income*

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

Costs per year



Projected lives saved per year



# FRANCE

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 **High quality PBCR**

Quality of mortality registration\*\*\* 2007-2016 **High**

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 **11.1**

# of mammographs<sup>a</sup> 2020 **10.8**

# of CT scanners<sup>a</sup> 2020 **29.8**

# of MRI scanners<sup>a</sup> 2020 **20.9**

# of PET or PET/CT scanners<sup>a</sup> 2020 **3.1**

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 **yes**

# of radiation oncologist<sup>a</sup> 2019 **15.2**

# of medical physicist<sup>a</sup> 2019 **11.4**

# of surgeons<sup>a</sup> 2014 **486.0**

# of radiologist<sup>a</sup> 2019 **220.5**

# of nuclear medicine physician<sup>a</sup> 2019 **13.2**

# of medical & pathology lab scientists<sup>a</sup> n/a **n/a**

### FORMULATING RESPONSE

Integrated NCD plan 2019 **operational**

NCCP (including cancer types) 2019 **operational**

MPOWER measures fully implemented and achieved 2018 **2**

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 **50**

# Public cancer centres per 10,000 cancer patients 2019 **0.4**

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 available**

Palliative care availability: community/home-based care 2019 **generally not available**

Availability of opioids\* for pain management 2015-2017 **6797**

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

### 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**

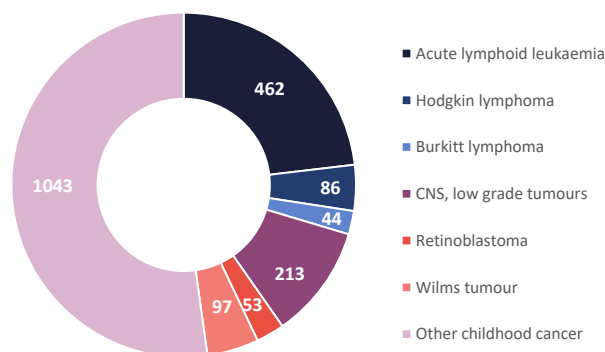
#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 **1998**

Early detection programme/guidelines 2019 **no**

Defined referral system 2019 **yes**

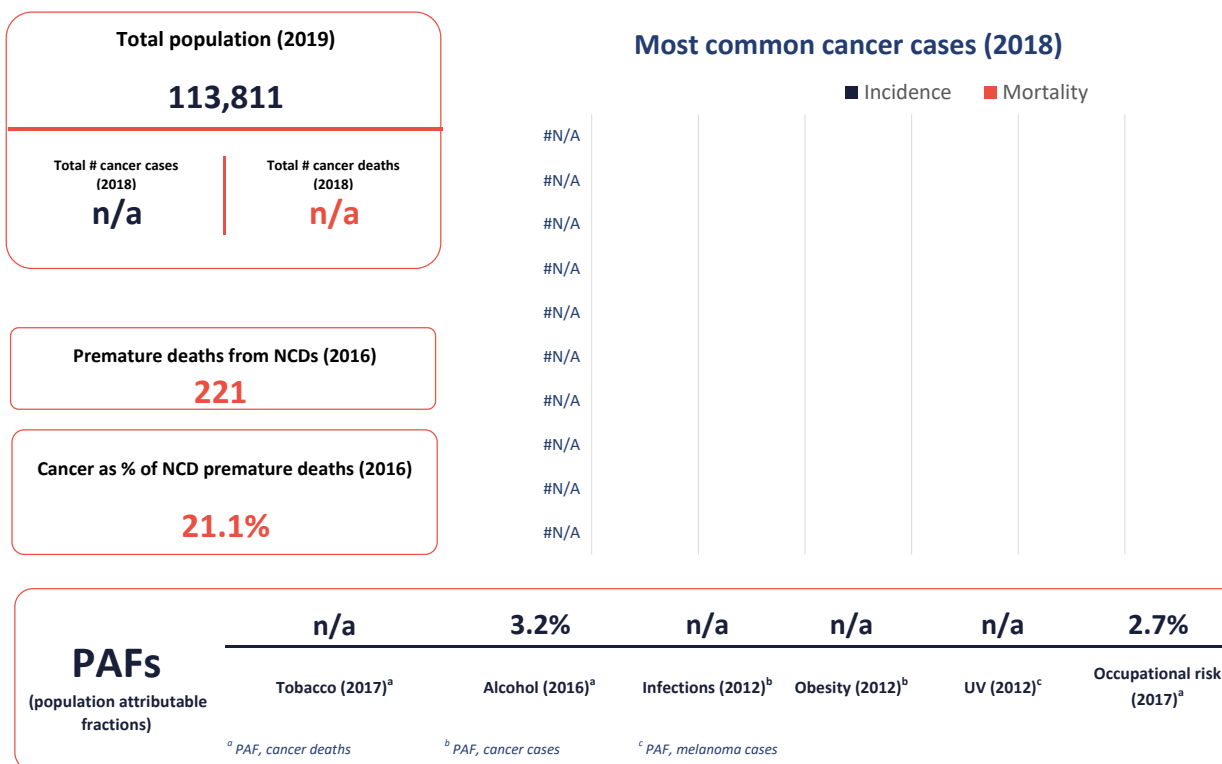
#### Annual cancer cases (0-14 years old)



# MICRONESIA, FEDERATED STATES OF

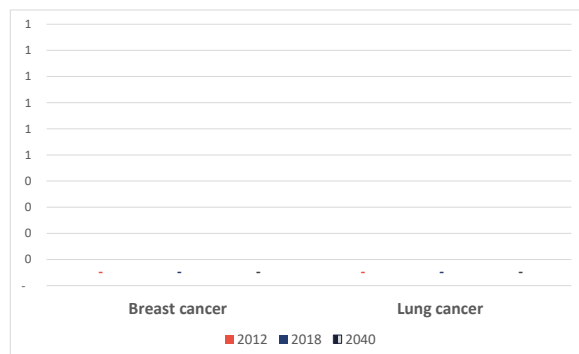
Cancer Country Profile 2020

## BURDEN OF CANCER

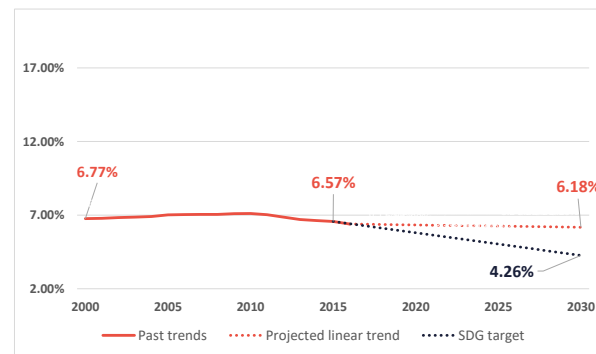


## TRENDS

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



Probability of premature death from cancer per year

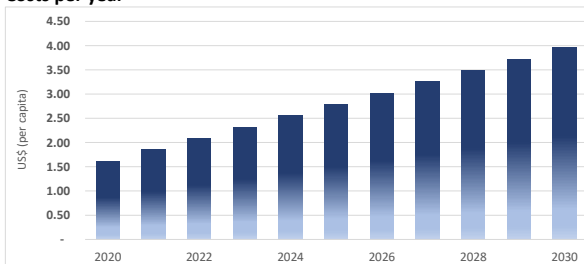


## INVESTMENT CASE (2019)

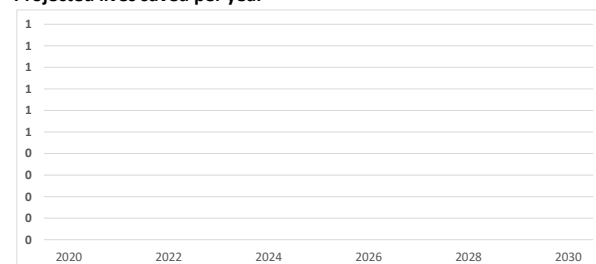
*\*Lower middle income*

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

Costs per year



Projected lives saved per year



# MICRONESIA, FEDERATED STATES OF

Cancer Country Profile 2020

## HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR	WORKFORCE		
			<sup>a</sup> per 10,000 cancer patients		
Quality of mortality registration***	2007-2016	No coverage	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	n/a	# of radiation oncologist <sup>a</sup>	2019	n/a
# of mammographs <sup>a</sup>	2020	n/a	# of medical physicist <sup>a</sup>	2019	n/a
# of CT scanners <sup>a</sup>	2020	n/a	# of surgeons <sup>a</sup>	2014	n/a
# of MRI scanners <sup>a</sup>	2020	n/a	# of radiologist <sup>a</sup>	2019	n/a
# of PET or PET/CT scanners <sup>a</sup>	2020	n/a	# of nuclear medicine physician <sup>a</sup>	2019	n/a
			# of medical & pathology lab scientists <sup>a</sup>	2008	n/a

## FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	n/a
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally not available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	36
Breast cancer screening program	2019	yes	<sup>a</sup> Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day		
Breast cancer screening program: Starting age, target population	2019	20			

## GLOBAL INITIATIVES

Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	60	Annual cancer cases (0-14 years old)	2020	n/a
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	no
Screening programme type	2019	opportunistic	Defined referral system	2019	no
Screening programme method	2019	visual inspection	Annual cancer cases (0-14 years old)		
Screening participation rates	2019	10%-50%			
Early detection programme/guidelines	2019	yes			
Defined referral system	2019	no			

- 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

# GABON

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**2,172,578**

Total # cancer cases  
(2018)

**1,677**

Total # cancer deaths  
(2018)

**1,097**

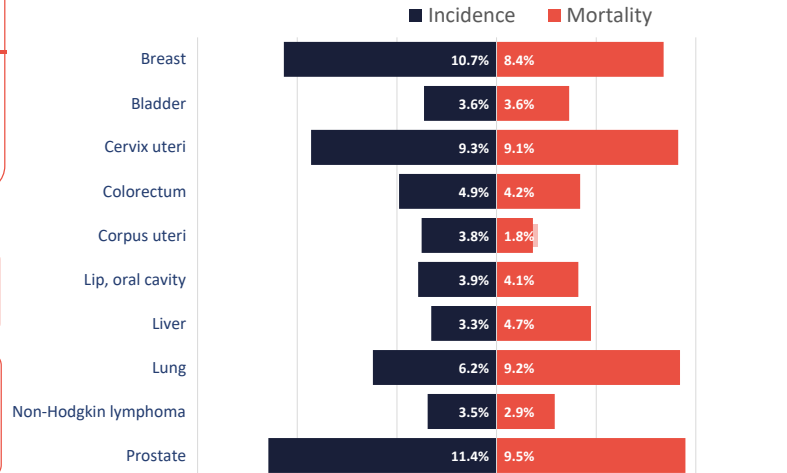
Premature deaths from NCDs (2016)

**2,114**

Cancer as % of NCD premature deaths (2016)

**23.4%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**13.3%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**9.9%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**21.6%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**2.6%**

Obesity (2012)<sup>b</sup>

**40.9%**

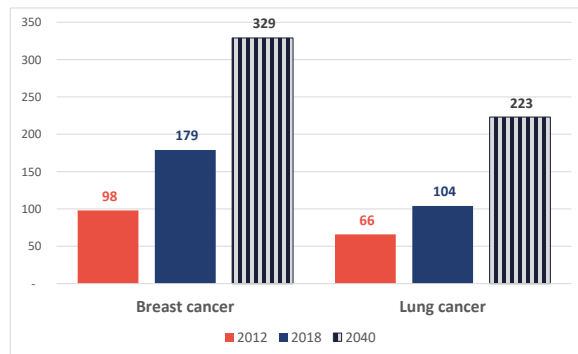
UV (2012)<sup>c</sup>

**1.0%**

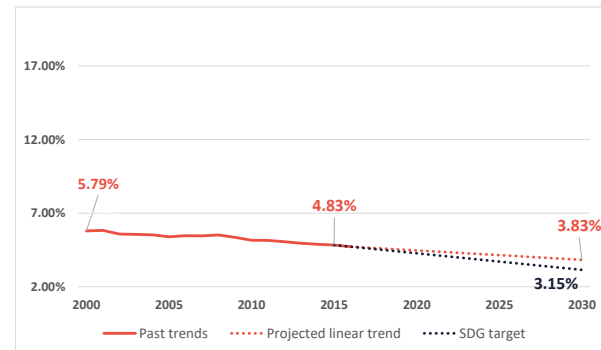
Occupational risk  
(2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

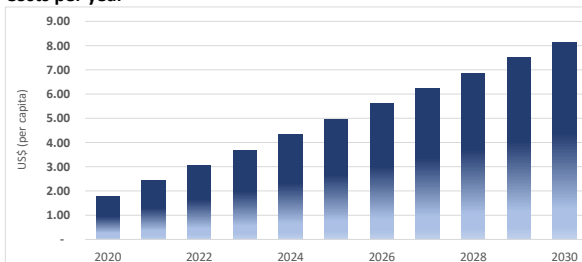


## INVESTMENT CASE (2019)

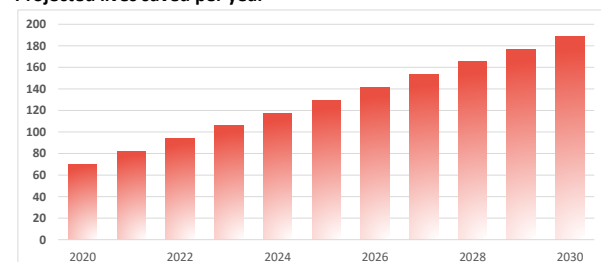
<sup>a</sup>Upper middle income

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

Costs per year



Projected lives saved per year



# GABON

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\*

2019

Registration activity

Quality of mortality registration\*\*\*

2007-2016

No coverage

# of external beam radiotherapy (photon,electron)<sup>a</sup>

2019

11.9

# of mammographs<sup>a</sup>

2020

35.8

# of CT scanners<sup>a</sup>

2020

35.8

# of MRI scanners<sup>a</sup>

2020

11.9

# of PET or PET/CT scanners<sup>a</sup>

2020

0.0

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer

2019

yes

# of radiation oncologist<sup>a</sup>

2019

n/a

# of medical physicist<sup>a</sup>

2019

n/a

# of surgeons<sup>a</sup>

n/a

n/a

# of radiologist<sup>a</sup>

2019

n/a

# of nuclear medicine physician<sup>a</sup>

2019

6.0

# of medical & pathology lab scientists<sup>a</sup>

2016

n/a

### FORMULATING RESPONSE

Integrated NCD plan

2019

n/a

NCCP (including cancer types)

2019

n/a

MPOWER measures fully implemented and achieved

2018

0

Cancer management guidelines

2019

no

Palliative care included in their operational, integrated NCD plan

2019

n/a

# of treatment services (surgery, radiotherapy, chemotherapy)

2019

3

Breast cancer screening program

2019

no

Breast cancer screening program: Starting age, target population

2019

n/a

# Public cancer centres per 10,000 cancer patients

2019

6.0

Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)

2019

0 cancer(s)

Pathology services

2019

generally available

Bone marrow transplantation capacity

2019

generally not available

Palliative care availability: community/home-based care

2019

generally not available

Availability of opioids\* for pain management

2015-2017

0

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

#### Elimination of Cervical Cancer

HPV vaccination programme coverage

2018

n/a

Cervical cancer screening

2019

no

Screening programme type

2019

n/a

Screening programme method

2019

n/a

Screening participation rates

2019

n/a

Early detection programme/guidelines

2019

no

Defined referral system

2019

yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)

2020

103

Early detection programme/guidelines

2019

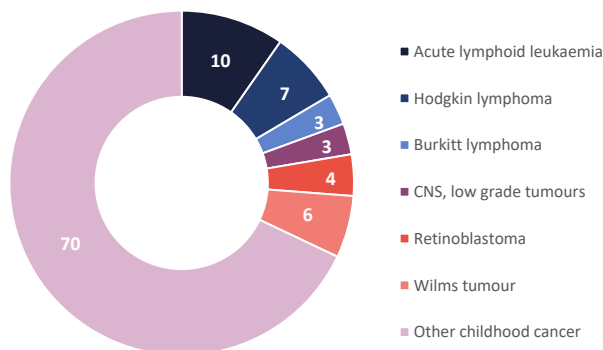
don't know

Defined referral system

2019

don't know

Annual cancer cases (0-14 years old)



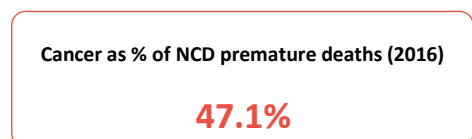
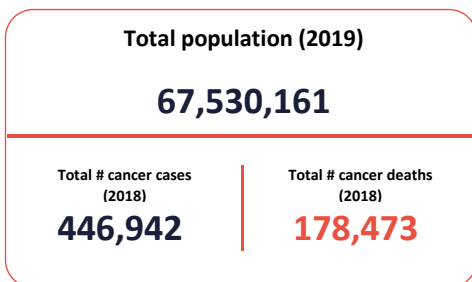
\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

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

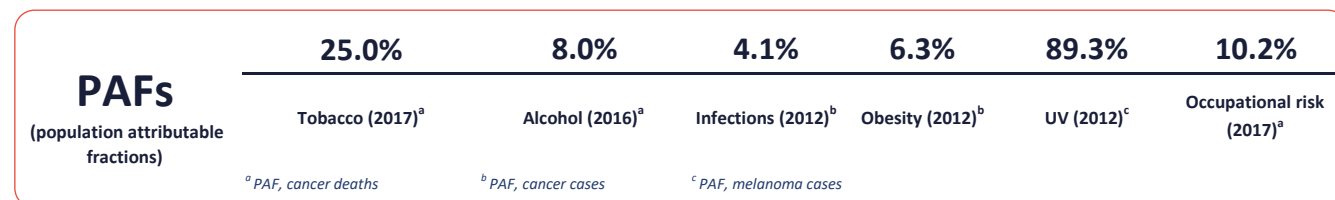
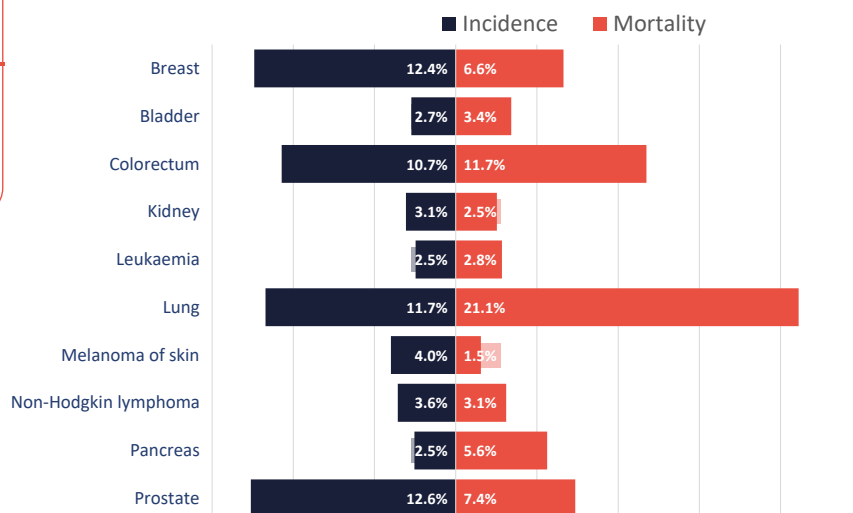
# UNITED KINGDOM

Cancer Country Profile 2020

## BURDEN OF CANCER

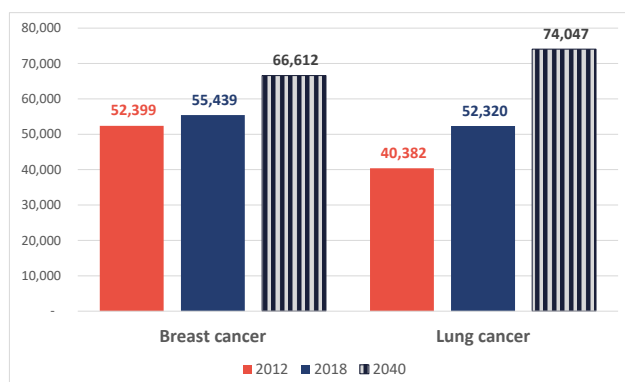


## Most common cancer cases (2018)

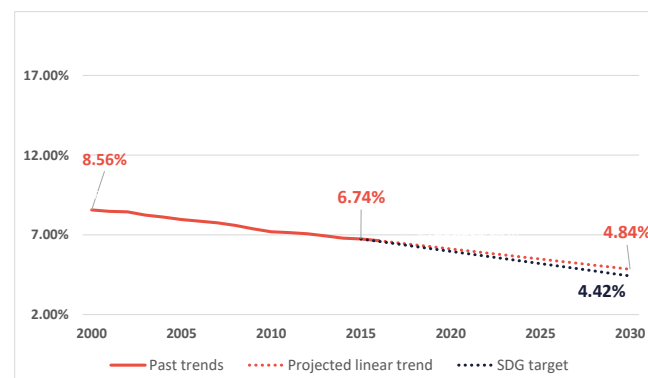


## TRENDS

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



Probability of premature death from cancer per year



## INVESTMENT CASE (2019)

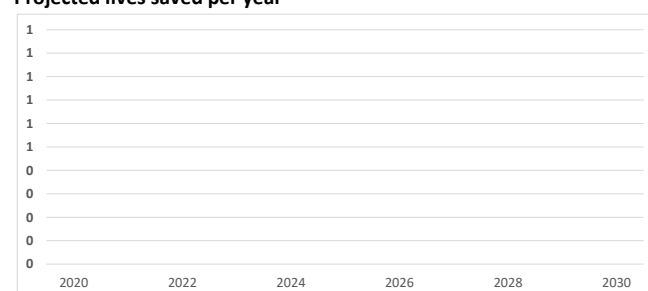
\*High income

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

### Costs per year



### Projected lives saved per year



# UNITED KINGDOM

Cancer Country Profile 2020

## HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR
Quality of mortality registration***	2007-2016	High
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	7.8
# of mammographs <sup>a</sup>	2020	14.2
# of CT scanners <sup>a</sup>	2020	21.6
# of MRI scanners <sup>a</sup>	2020	21.6
# of PET or PET/CT scanners <sup>a</sup>	2020	0.7

## WORKFORCE

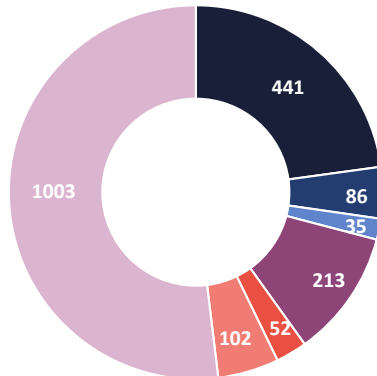
<sup>a</sup> per 10,000 cancer patients

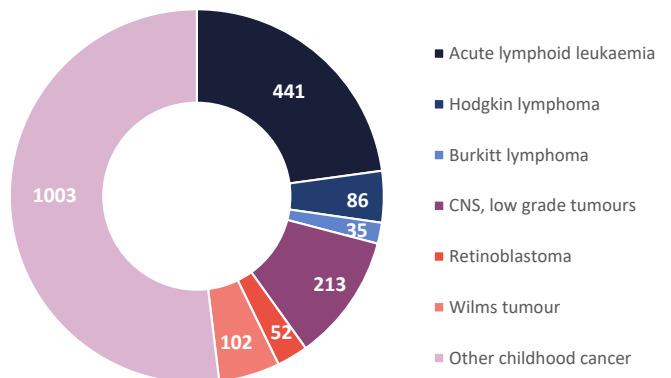
Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	16.0
# of medical physicist <sup>a</sup>	2019	38.0
# of surgeons <sup>a</sup>	2012	485.2
# of radiologist <sup>a</sup>	2019	81.8
# of nuclear medicine physician <sup>a</sup>	2019	2.0
# of medical & pathology lab scientists <sup>a</sup>	n/a	n/a

## FORMULATING RESPONSE

Integrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients	2019	0.4
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s)
MPOWER measures fully implemented and achieved	2018	3	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	7723
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day		
Breast cancer screening program: Starting age, target population	2019	50			

## GLOBAL INITIATIVES

<b>Elimination of Cervical Cancer</b>			<b>Global Initiative for Childhood Cancer</b>		
HPV vaccination programme coverage	2018	80.6	Annual cancer cases (0-14 years old)	2020	1932
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	yes
Screening programme type	2019	organised	Defined referral system	2019	yes
Screening programme method	2019	PAP smear	Annual cancer cases (0-14 years old)		
Screening participation rates	2019	70% or more			
Early detection programme/guidelines	2019	yes			
Defined referral system	2019	yes			





# GEORGIA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**3,996,762**

Total # cancer cases  
(2018)

**9,381**

Total # cancer deaths  
(2018)

**6,114**

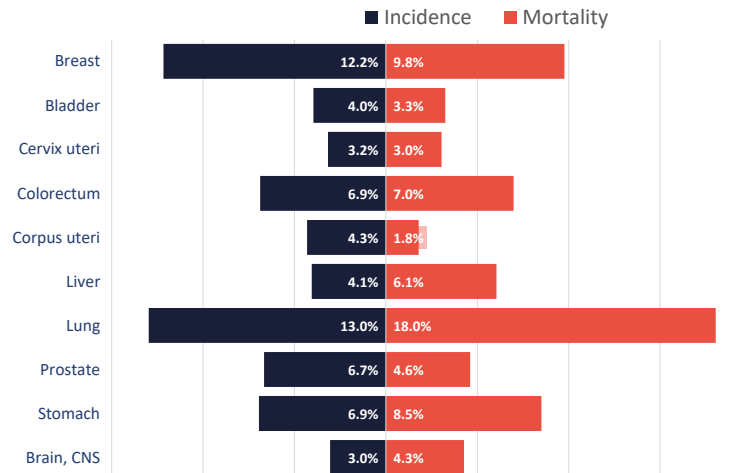
Premature deaths from NCDs (2016)

**14,966**

Cancer as % of NCD premature deaths (2016)

**25.8%**

## Most common cancer cases (2018)



## PAFs

(population attributable fractions)

**24.5%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**6.4%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**12.5%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**3.3%**

Obesity (2012)<sup>b</sup>

**53.7%**

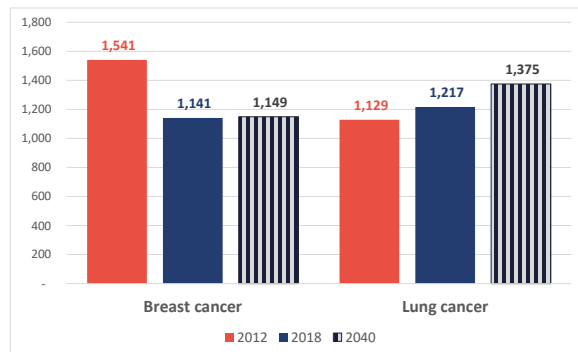
UV (2012)<sup>c</sup>

**3.0%**

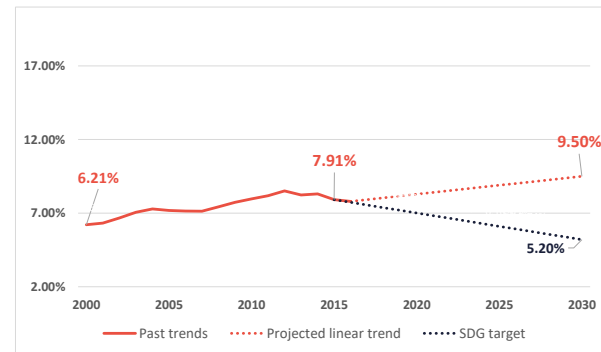
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

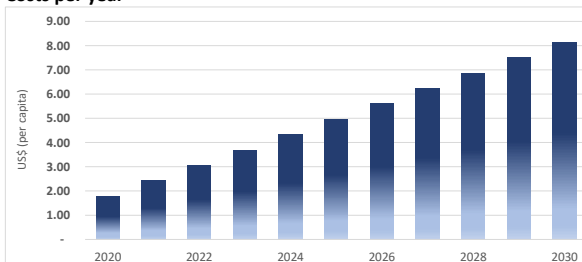


## INVESTMENT CASE (2019)

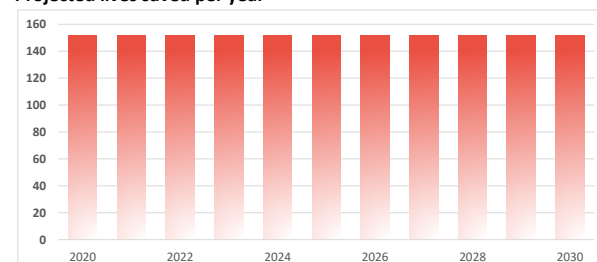
<sup>a</sup>Upper middle income

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR
Quality of mortality registration***	2007-2016	Low
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	17.1
# of mammographs <sup>a</sup>	2020	29.8
# of CT scanners <sup>a</sup>	2020	91.7
# of MRI scanners <sup>a</sup>	2020	29.8
# of PET or PET/CT scanners <sup>a</sup>	2020	1.1

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	19.2
# of surgeons <sup>a</sup>	n/a	n/a
# of radiologist <sup>a</sup>	2019	1502.0
# of nuclear medicine physician <sup>a</sup>	2019	n/a
# of medical & pathology lab scientists <sup>a</sup>	n/a	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	-
NCCP (including cancer types)	2019	under development	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	1 cancer(s)
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	146
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	40			

### GLOBAL INITIATIVES

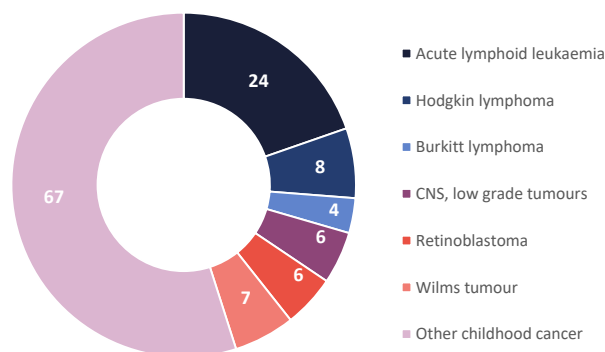
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	10%-50%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	122
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Annual cancer cases (0-14 years old)



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

# GHANA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**30,417,858**

Total # cancer cases  
(2018)

**22,823**

Total # cancer deaths  
(2018)

**15,089**

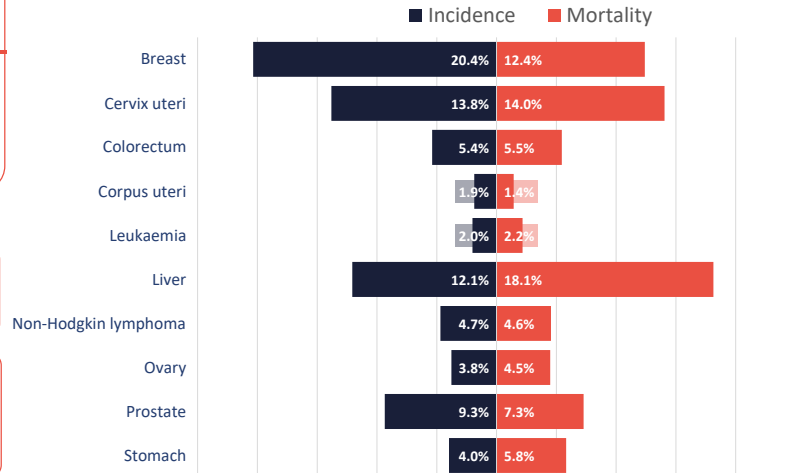
Premature deaths from NCDs (2016)

**41,410**

Cancer as % of NCD premature deaths (2016)

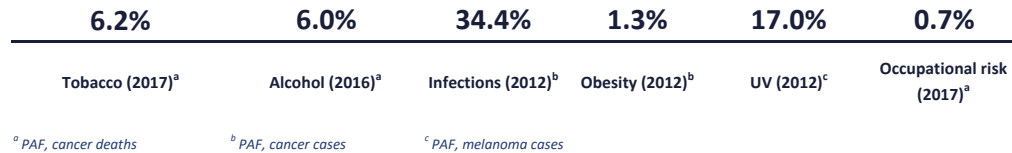
**17.9%**

### Most common cancer cases (2018)



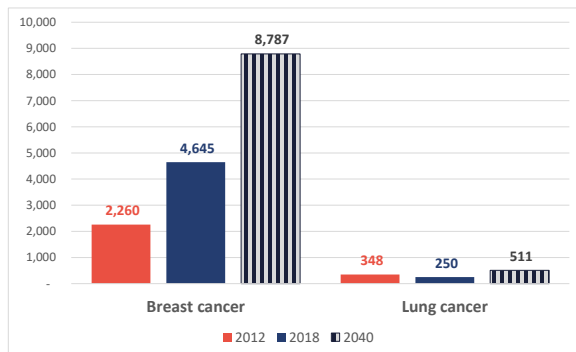
### PAFs

(population attributable fractions)

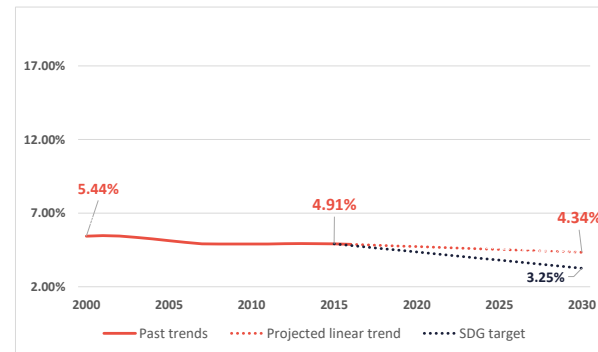


## TRENDS

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



### Probability of premature death from cancer per year

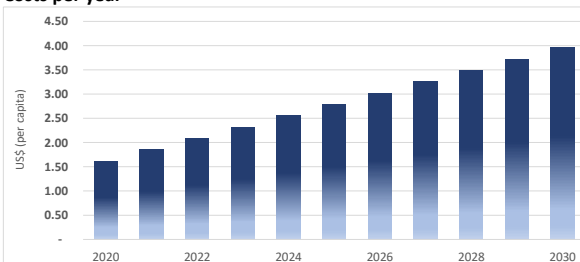


## INVESTMENT CASE (2019)

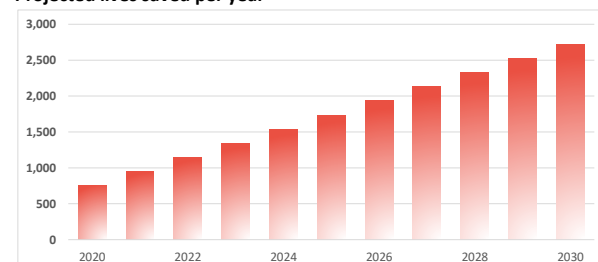
*\*Lower middle income*

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR
Quality of mortality registration***	2007-2016	No coverage
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	1.8
# of mammographs <sup>a</sup>	2020	10.1
# of CT scanners <sup>a</sup>	2020	16.6
# of MRI scanners <sup>a</sup>	2020	0.9
# of PET or PET/CT scanners <sup>a</sup>	2020	0.0

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	no
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	25.4
# of surgeons <sup>a</sup>	n/a	n/a
# of radiologist <sup>a</sup>	2019	39.4
# of nuclear medicine physician <sup>a</sup>	2019	1.3
# of medical & pathology lab scientists <sup>a</sup>	2013	n/a

## FORMULATING RESPONSE

Integrated NCD plan	2019	under development	# Public cancer centres per 10,000 cancer patients	2019	0.9
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally not available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	23
Breast cancer screening program	2019	no	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	n/a			

## GLOBAL INITIATIVES

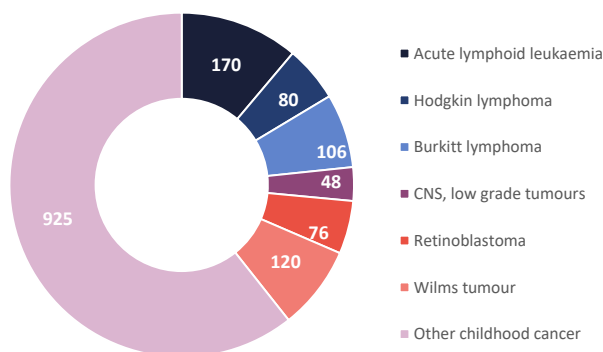
## Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	no
Screening programme type	2019	n/a
Screening programme method	2019	n/a
Screening participation rates	2019	n/a
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

## Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	1525
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

## Annual cancer cases (0-14 years old)



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

# GUINEA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**12,771,246**

Total # cancer cases  
(2018)

**787**

Total # cancer deaths  
(2018)

**526**

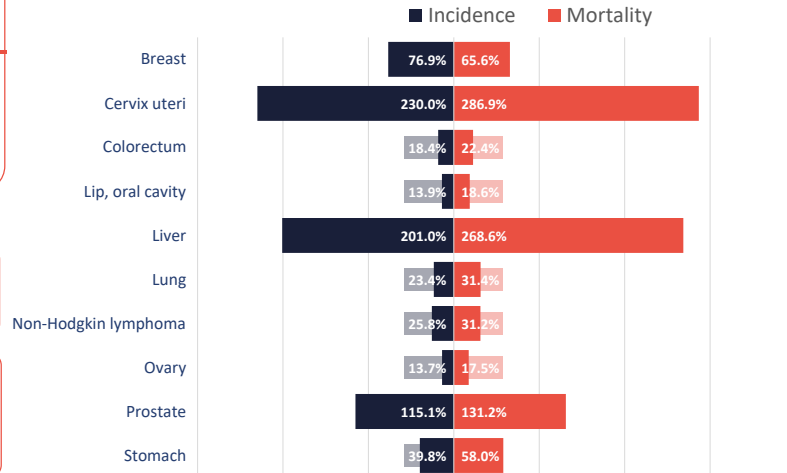
Premature deaths from NCDs (2016)

**18,279**

Cancer as % of NCD premature deaths (2016)

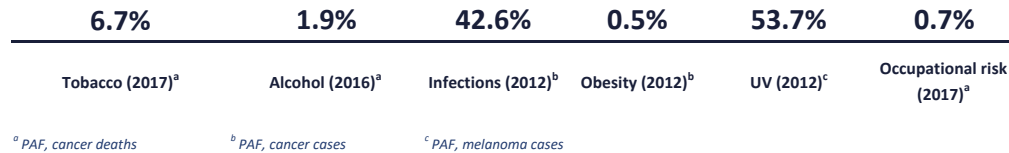
**16.6%**

### Most common cancer cases (2018)



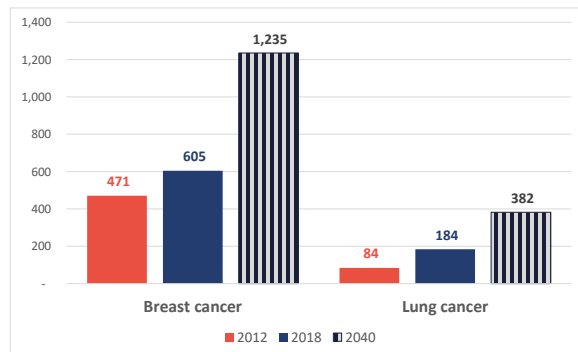
### PAFs

(population attributable fractions)

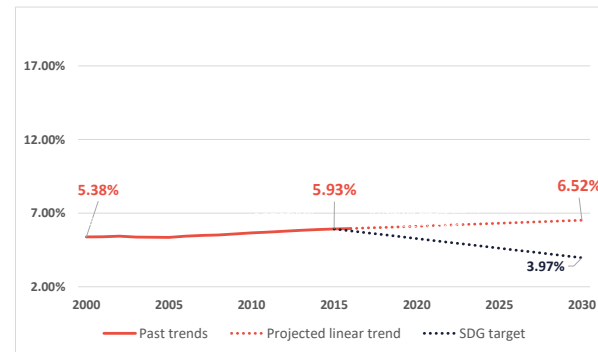


## TRENDS

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



### Probability of premature death from cancer per year

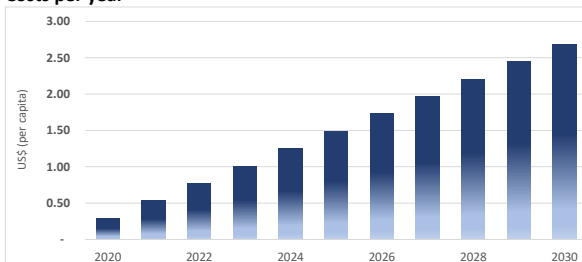


## INVESTMENT CASE (2019)

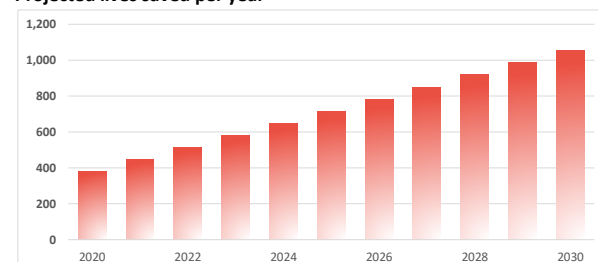
*\*Low income*

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

### Costs per year



### Projected lives saved per year



# GUINEA

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR
Quality of mortality registration***	2007-2016	No coverage
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	n/a
# of mammographs <sup>a</sup>	2020	25.4
# of CT scanners <sup>a</sup>	2020	50.8
# of MRI scanners <sup>a</sup>	2020	25.4
# of PET or PET/CT scanners <sup>a</sup>	2020	0.0

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	n/a
# of surgeons <sup>a</sup>	n/a	n/a
# of radiologist <sup>a</sup>	2019	0.0
# of nuclear medicine physician <sup>a</sup>	2019	n/a
# of medical & pathology lab scientists <sup>a</sup>	2016	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients	2019	25.4
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s)
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	n/a	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	2	Availability of opioids* for pain management	2015-2017	0
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	25			

### GLOBAL INITIATIVES

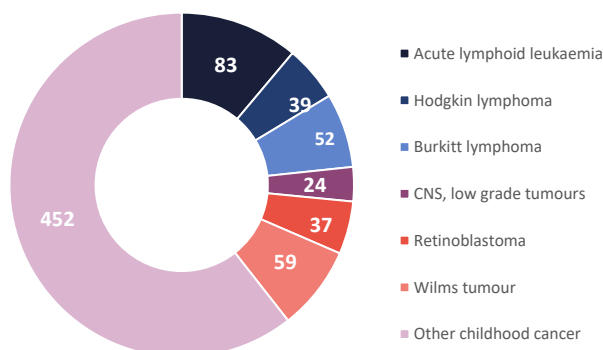
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
Screening programme method	2019	visual inspection
Screening participation rates	2019	<10%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	746
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Annual cancer cases (0-14 years old)



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

# GAMBIA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**2,347,696**

Total # cancer cases  
(2018)

**705**

Total # cancer deaths  
(2018)

**610**

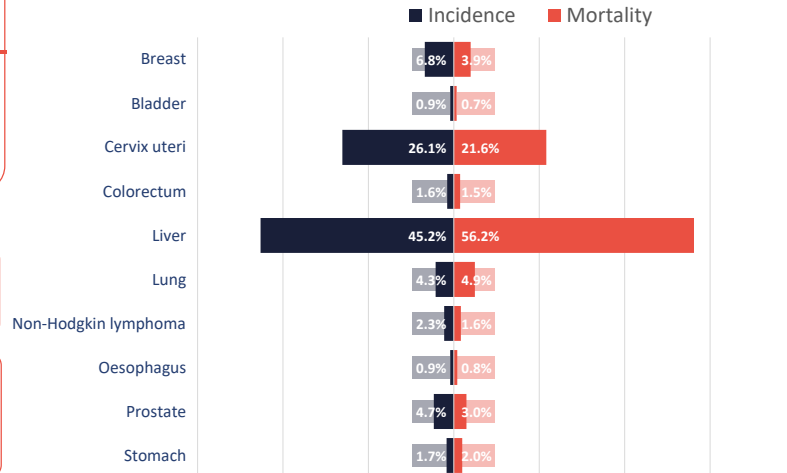
Premature deaths from NCDs (2016)

**2,140**

Cancer as % of NCD premature deaths (2016)

**15.1%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

n/a

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

6.6%

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

51.3%

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

0.6%

Obesity (2012)<sup>b</sup>

n/a

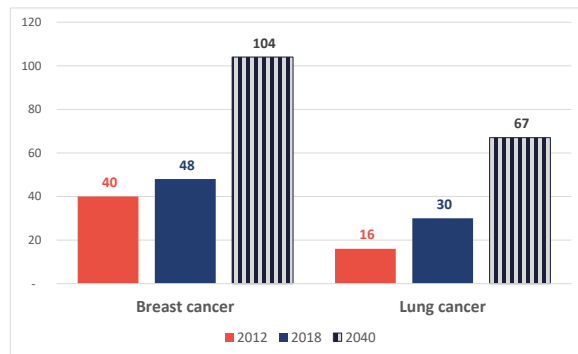
UV (2012)<sup>c</sup>

0.6%

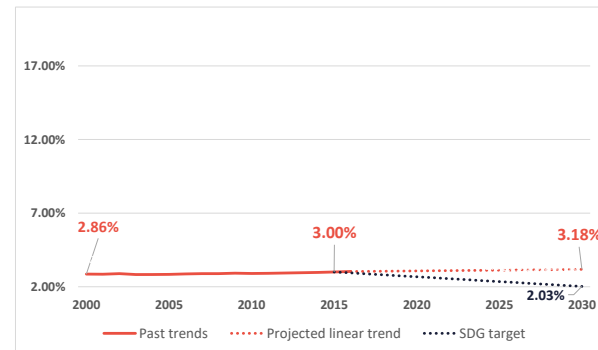
Occupational risk  
(2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

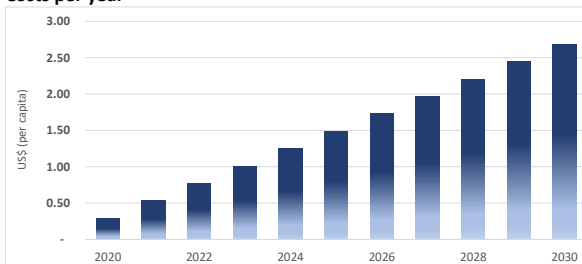


## INVESTMENT CASE (2019)

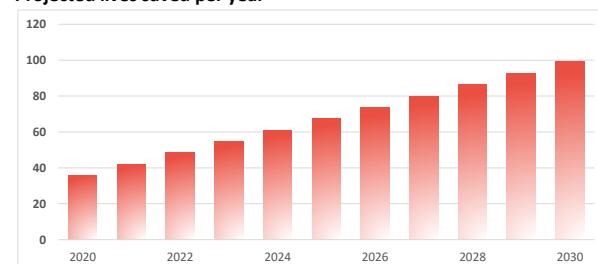
<sup>a</sup>Low income

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR
Quality of mortality registration***	2007-2016	No coverage
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	0.0
# of mammographs <sup>a</sup>	2020	14.2
# of CT scanners <sup>a</sup>	2020	28.4
# of MRI scanners <sup>a</sup>	2020	14.2
# of PET or PET/CT scanners <sup>a</sup>	2020	0.0

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	n/a
# of surgeons <sup>a</sup>	2011	141.8
# of radiologist <sup>a</sup>	2019	0.0
# of nuclear medicine physician <sup>a</sup>	2019	0.0
# of medical & pathology lab scientists <sup>a</sup>	2015	156.0

### FORMULATING RESPONSE

Integrated NCD plan	2019	not in effect	# Public cancer centres per 10,000 cancer patients	2019	14.2
NCCP (including cancer types)	2019	under development	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally not available
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	0
Breast cancer screening program	2019	no	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	n/a			

### GLOBAL INITIATIVES

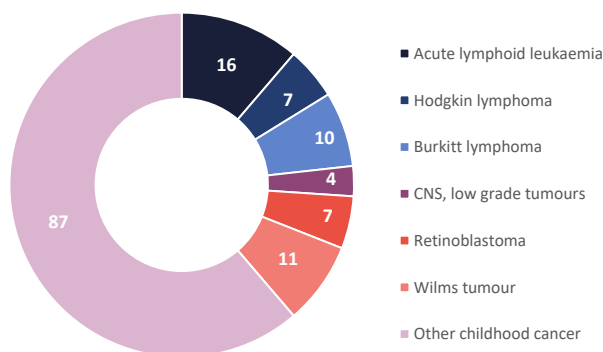
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	no
Screening programme type	2019	n/a
Screening programme method	2019	n/a
Screening participation rates	2019	n/a
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	142
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Annual cancer cases (0-14 years old)



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



# GUINEA-BISSAU

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**1,920,917**

Total # cancer cases  
(2018)

**1,037**

Total # cancer deaths  
(2018)

**810**

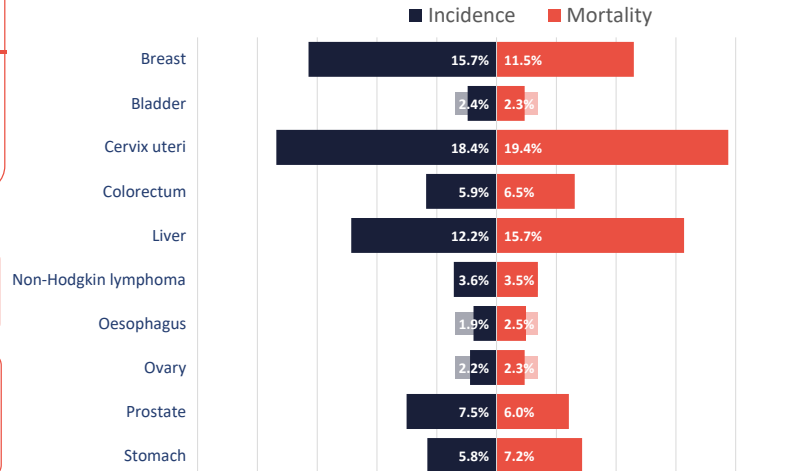
Premature deaths from NCDs (2016)

**2,143**

Cancer as % of NCD premature deaths (2016)

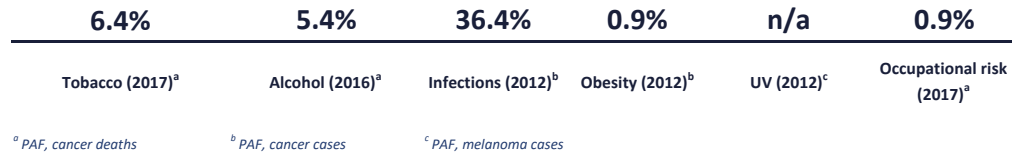
**20.4%**

## Most common cancer cases (2018)



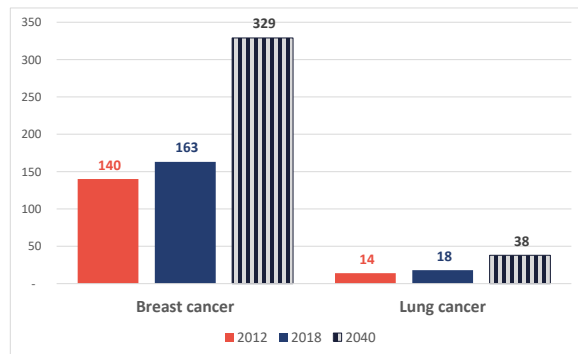
## PAFs

(population attributable fractions)

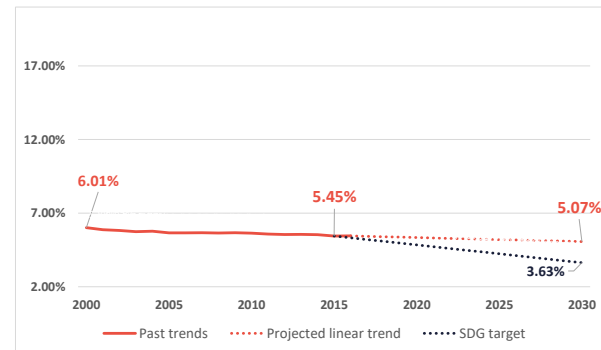


## TRENDS

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



Probability of premature death from cancer per year

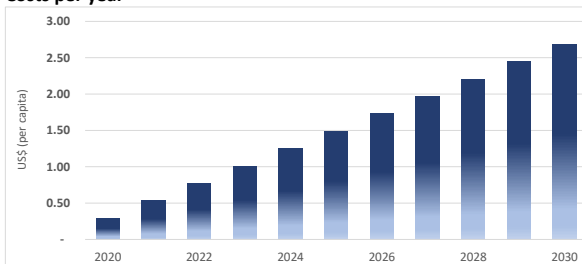


## INVESTMENT CASE (2019)

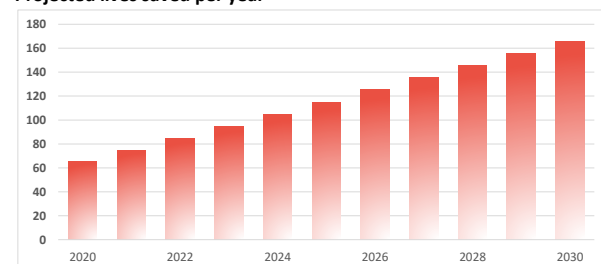
*\*Low income*

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

Costs per year



Projected lives saved per year



# GUINEA-BISSAU

Cancer Country Profile 2020

## HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 No information

Quality of mortality registration\*\*\* 2007-2016 No coverage

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 0.0

# of mammographs<sup>a</sup> 2020 0.0

# of CT scanners<sup>a</sup> 2020 0.0

# of MRI scanners<sup>a</sup> 2020 0.0

# of PET or PET/CT scanners<sup>a</sup> 2020 0.0

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 yes

# of radiation oncologist<sup>a</sup> 2019 n/a

# of medical physicist<sup>a</sup> 2019 n/a

# of surgeons<sup>a</sup> n/a n/a

# of radiologist<sup>a</sup> 2019 n/a

# of nuclear medicine physician<sup>a</sup> 2019 n/a

# of medical & pathology lab scientists<sup>a</sup> 2009 n/a

## FORMULATING RESPONSE

Integrated NCD plan 2019 n/a

NCCP (including cancer types) 2019 n/a

MPOWER measures fully implemented and achieved 2018 0

Cancer management guidelines 2019 no

Palliative care included in their operational, integrated NCD plan 2019 n/a

# of treatment services (surgery, radiotherapy, chemotherapy) 2019 0

Breast cancer screening program 2019 no

Breast cancer screening program: Starting age, target population 2019 n/a

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

Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood) 2019 0 cancer(s)

Pathology services 2019 generally not available

Bone marrow transplantation capacity 2019 generally not available

Palliative care availability: community/home-based care 2019 generally not available

Availability of opioids\* for pain management 2015-2017 0

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

## GLOBAL INITIATIVES

### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 n/a

Cervical cancer screening 2019 no

Screening programme type 2019 n/a

Screening programme method 2019 n/a

Screening participation rates 2019 n/a

Early detection programme/guidelines 2019 no

Defined referral system 2019 no

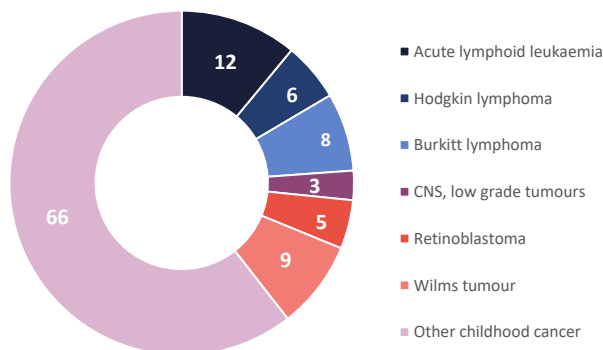
### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 109

Early detection programme/guidelines 2019 no

Defined referral system 2019 no

### Annual cancer cases (0-14 years old)



\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

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

# EQUATORIAL GUINEA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**1,355,982**

Total # cancer cases  
(2018)

**7,274**

Total # cancer deaths  
(2018)

**5,853**

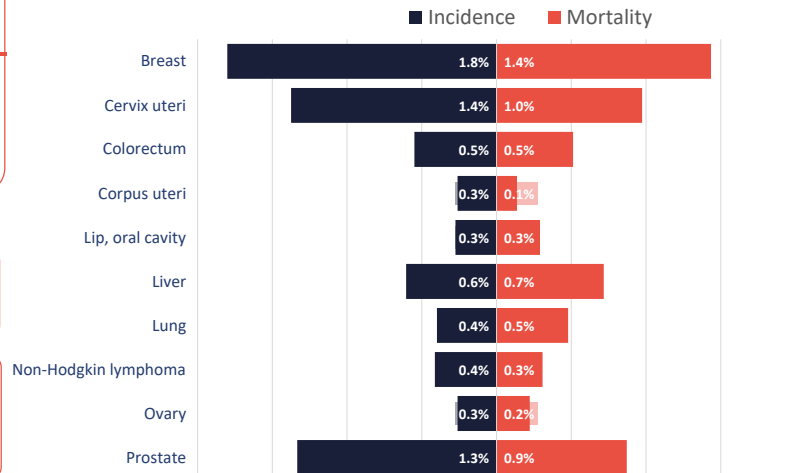
Premature deaths from NCDs (2016)

**1,929**

Cancer as % of NCD premature deaths (2016)

**18.1%**

### Most common cancer cases (2018)



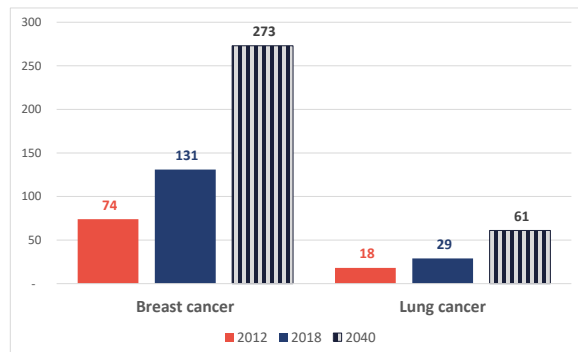
### PAFs

(population attributable fractions)

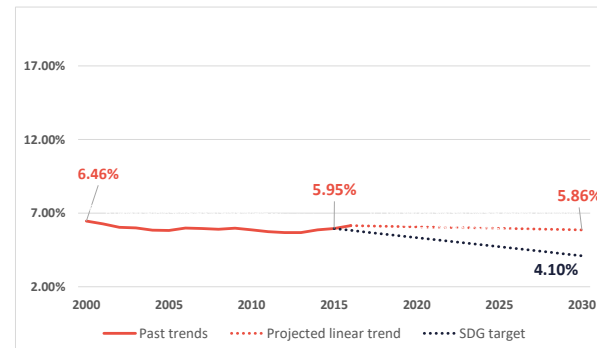
	9.4%	8.6%	24.6%	1.4%	n/a	0.7%
	Tobacco (2017) <sup>a</sup>	Alcohol (2016) <sup>a</sup>	Infections (2012) <sup>b</sup>	Obesity (2012) <sup>b</sup>	UV (2012) <sup>c</sup>	Occupational risk (2017) <sup>a</sup>
	<sup>a</sup> PAF, cancer deaths	<sup>b</sup> PAF, cancer cases	<sup>c</sup> PAF, melanoma cases			

## TRENDS

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



Probability of premature death from cancer per year

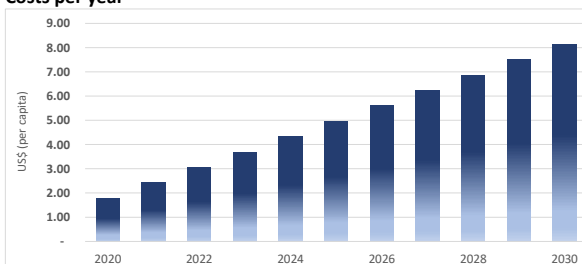


## INVESTMENT CASE (2019)

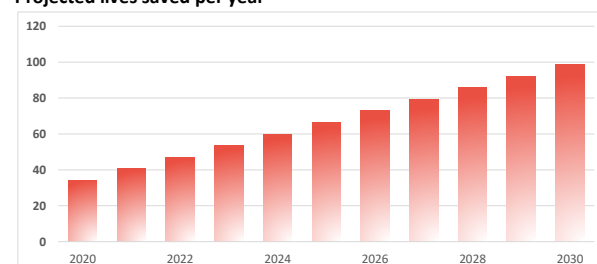
*\*Upper middle income*

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

### Costs per year



### Projected lives saved per year



# EQUATORIAL GUINEA

Cancer Country Profile 2020

## HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 No information

Quality of mortality registration\*\*\* 2007-2016 No coverage

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 0.0

# of mammographs<sup>a</sup> 2020 0.0

# of CT scanners<sup>a</sup> 2020 0.0

# of MRI scanners<sup>a</sup> 2020 1.4

# of PET or PET/CT scanners<sup>a</sup> 2020 0.0

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 no

# of radiation oncologist<sup>a</sup> 2019 n/a

# of medical physicist<sup>a</sup> 2019 n/a

# of surgeons<sup>a</sup> n/a n/a

# of radiologist<sup>a</sup> 2019 2.7

# of nuclear medicine physician<sup>a</sup> 2019 0.0

# of medical & pathology lab scientists<sup>a</sup> 2004 4.1

## FORMULATING RESPONSE

Integrated NCD plan 2019 n/a

NCCP (including cancer types) 2019 n/a

MPOWER measures fully implemented and achieved 2018 0

Cancer management guidelines 2019 no

Palliative care included in their operational, integrated NCD plan 2019 n/a

# of treatment services (surgery, radiotherapy, chemotherapy) 2019 0

Breast cancer screening program 2019 no

Breast cancer screening program: Starting age, target population 2019 n/a

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

Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood) 2019 1 cancer(s)

Pathology services 2019 generally available

Bone marrow transplantation capacity 2019 don't know

Palliative care availability: community/home-based care 2019 generally not available

Availability of opioids\* for pain management 2015-2017 0

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

## GLOBAL INITIATIVES

### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 n/a

Cervical cancer screening 2019 no

Screening programme type 2019 n/a

Screening programme method 2019 n/a

Screening participation rates 2019 n/a

Early detection programme/guidelines 2019 yes

Defined referral system 2019 yes

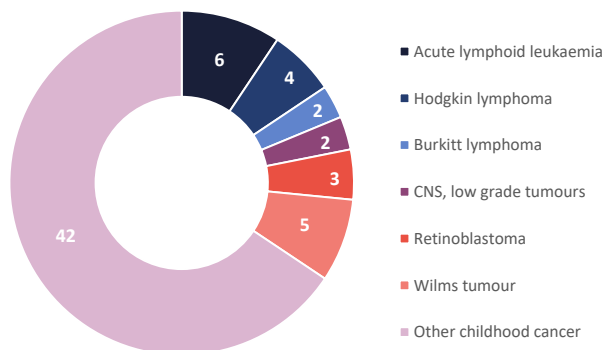
### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 64

Early detection programme/guidelines 2019 no

Defined referral system 2019 no

### Annual cancer cases (0-14 years old)



\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

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

# GREECE

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**10,473,452**

Total # cancer cases  
(2018)

**67,401**

Total # cancer deaths  
(2018)

**33,288**

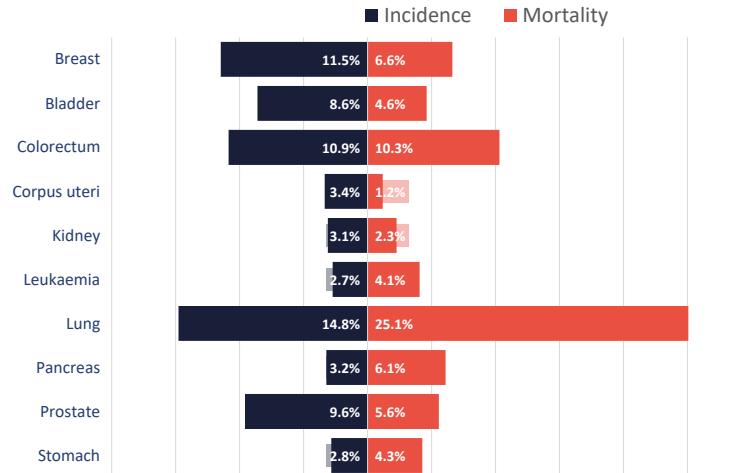
Premature deaths from NCDs (2016)

**20,740**

Cancer as % of NCD premature deaths (2016)

**50.0%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**34.6%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**5.5%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**6.9%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**4.4%**

Obesity (2012)<sup>b</sup>

**38.4%**

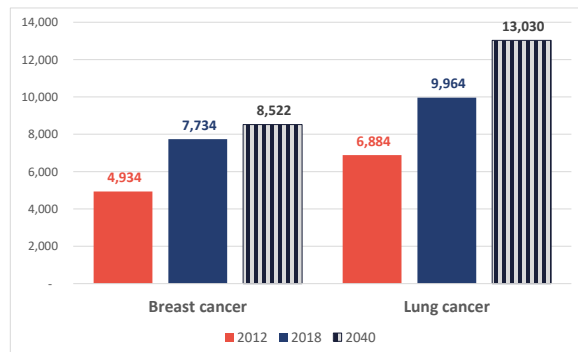
UV (2012)<sup>c</sup>

**4.2%**

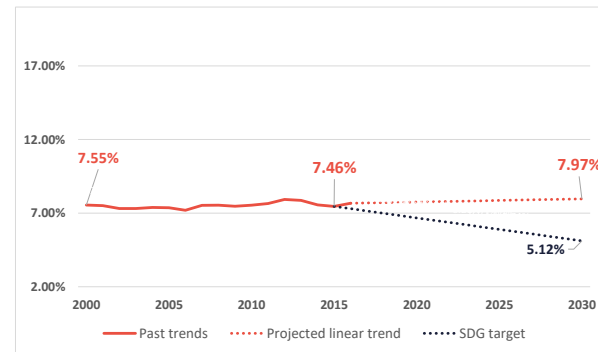
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

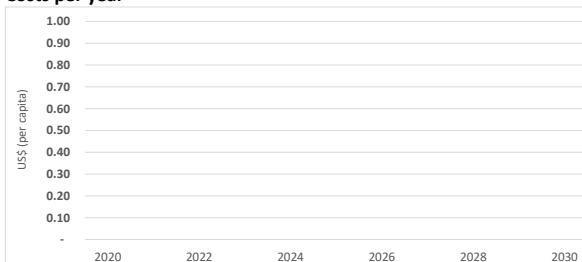


## INVESTMENT CASE (2019)

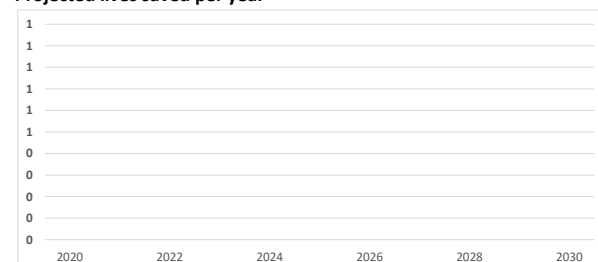
\*High income

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

### Costs per year



### Projected lives saved per year



# GREECE

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\*

2019 Registration activity

Quality of mortality registration\*\*\* 2007-2016 Medium

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 7.9

# of mammographs<sup>a</sup> 2020 99.3

# of CT scanners<sup>a</sup> 2020 58.8

# of MRI scanners<sup>a</sup> 2020 42.6

# of PET or PET/CT scanners<sup>a</sup> 2020 1.8

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer

2019 no

# of radiation oncologist<sup>a</sup> 2019 n/a

# of medical physicist<sup>a</sup> 2019 68.1

# of surgeons<sup>a</sup> 2013 1667.6

# of radiologist<sup>a</sup> 2019 493.4

# of nuclear medicine physician<sup>a</sup> 2019 n/a

# of medical & pathology lab scientists<sup>a</sup> 2011 n/a

### FORMULATING RESPONSE

Integrated NCD plan 2019 n/a

NCCP (including cancer types) 2019 n/a

MPOWER measures fully implemented and achieved 2018 3

Cancer management guidelines 2019 yes

Palliative care included in their operational, integrated NCD plan 2019 n/a

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

Breast cancer screening program 2019 yes

Breast cancer screening program: Starting age, target population 2019 40

# Public cancer centres per 10,000 cancer patients 2019 1.6

Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood) 2019 0 cancer(s)

Pathology services 2019 generally available

Bone marrow transplantation capacity 2019 don't know

Palliative care availability: community/home-based care 2019 generally not available

Availability of opioids\* for pain management 2015-2017 7373

\*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

#### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 0

Cervical cancer screening 2019 yes

Screening programme type 2019 opportunistic

Screening programme method 2019 PAP smear

Screening participation rates 2019 don't know

Early detection programme/guidelines 2019 don't know

Defined referral system 2019 don't know

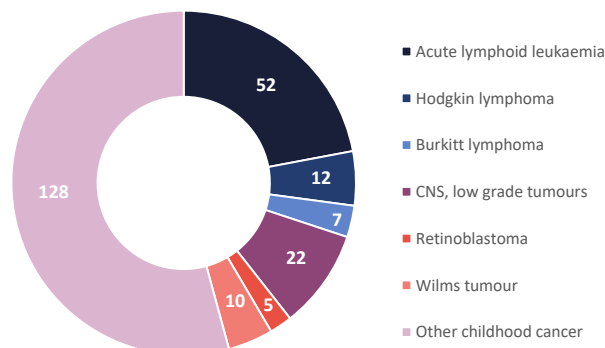
#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 236

Early detection programme/guidelines 2019 don't know

Defined referral system 2019 don't know

#### Annual cancer cases (0-14 years old)



\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

# GRENADA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**112,002**

Total # cancer cases  
(2018)

**n/a**

Total # cancer deaths  
(2018)

**n/a**

Premature deaths from NCDs (2016)

**219**

Cancer as % of NCD premature deaths (2016)

**29.6%**

## Most common cancer cases (2018)

■ Incidence ■ Mortality

#N/A

#N/A

#N/A

#N/A

#N/A

#N/A

#N/A

#N/A

#N/A

#N/A

## PAFs

(population attributable  
fractions)

**12.3%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**8.0%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**n/a**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**n/a**

Obesity (2012)<sup>b</sup>

**n/a**

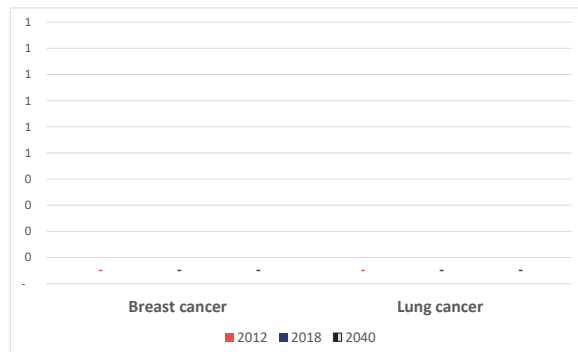
UV (2012)<sup>c</sup>

**1.2%**

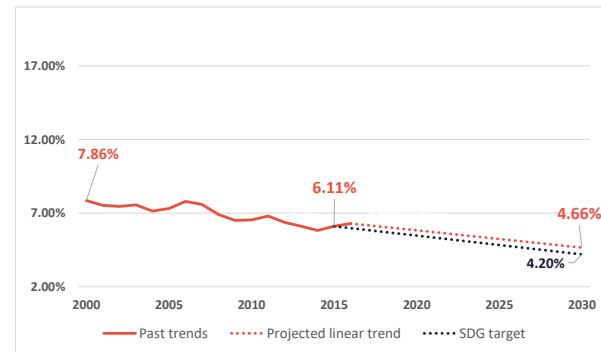
Occupational risk  
(2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

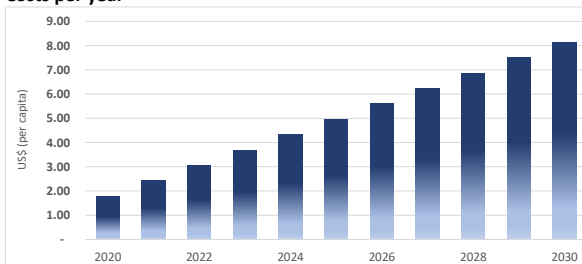


## INVESTMENT CASE (2019)

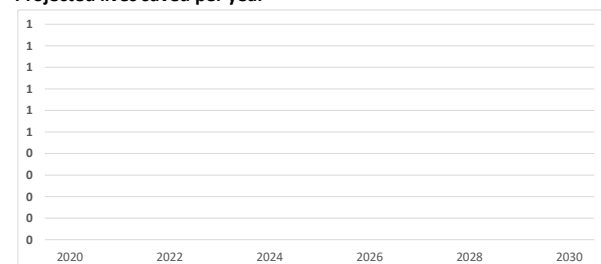
<sup>a</sup>Upper middle income

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR
Quality of mortality registration***	2007-2016	High
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	n/a
# of mammographs <sup>a</sup>	2020	n/a
# of CT scanners <sup>a</sup>	2020	n/a
# of MRI scanners <sup>a</sup>	2020	n/a
# of PET or PET/CT scanners <sup>a</sup>	2020	n/a

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	n/a
# of surgeons <sup>a</sup>	2014	n/a
# of radiologist <sup>a</sup>	2019	n/a
# of nuclear medicine physician <sup>a</sup>	2019	n/a
# of medical & pathology lab scientists <sup>a</sup>	2003	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	not in effect	# Public cancer centres per 10,000 cancer patients	2019	n/a
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally available
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	2	Availability of opioids* for pain management	2015-2017	0
Breast cancer screening program	2019	no	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	n/a			

### GLOBAL INITIATIVES

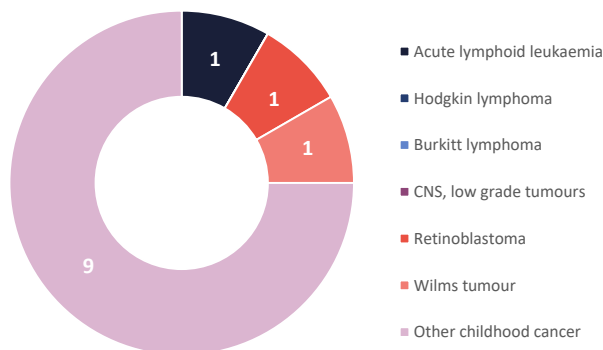
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	no
Screening programme type	2019	n/a
Screening programme method	2019	n/a
Screening participation rates	2019	n/a
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	12
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Annual cancer cases (0-14 years old)





# GUATEMALA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**17,581,476**

Total # cancer cases (2018)

**16,332**

Total # cancer deaths (2018)

**9,213**

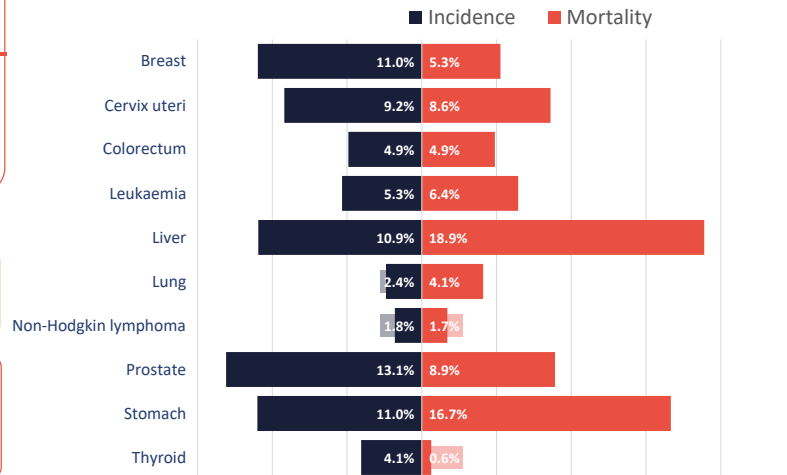
Premature deaths from NCDs (2016)

**20,305**

Cancer as % of NCD premature deaths (2016)

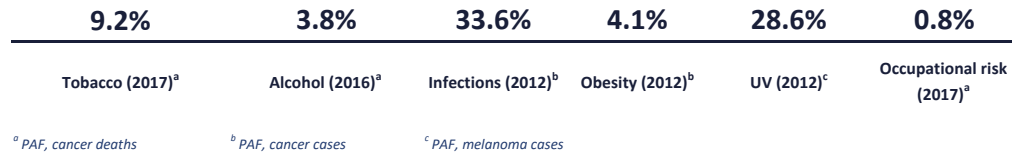
**19.6%**

### Most common cancer cases (2018)



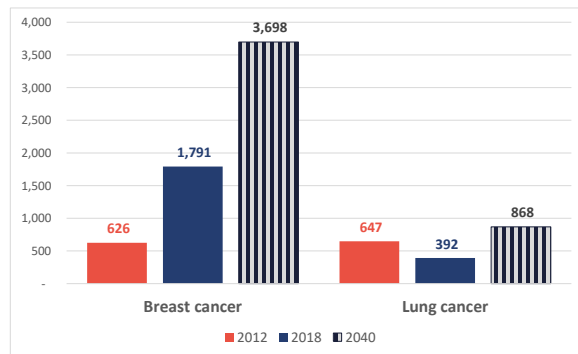
### PAFs

(population attributable fractions)

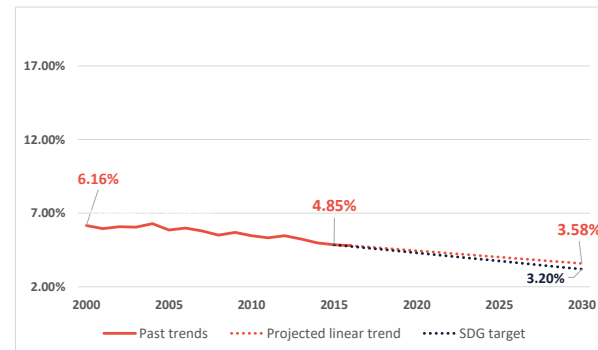


## TRENDS

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



### Probability of premature death from cancer per year

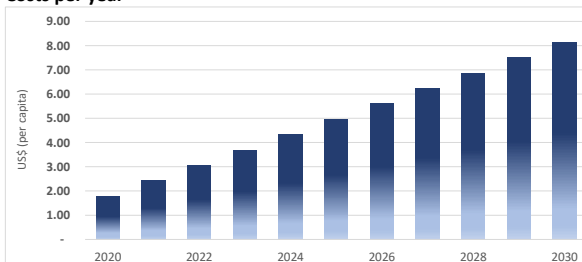


## INVESTMENT CASE (2019)

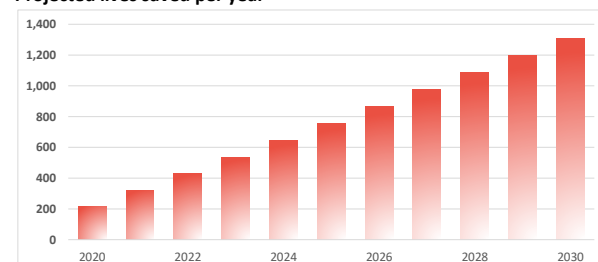
*\*Upper middle income*

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

### Costs per year



### Projected lives saved per year



# GUATEMALA

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\*

2019 Registration activity

Quality of mortality registration\*\*\* 2007-2016 High

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 4.9

# of mammographs<sup>a</sup> 2020 47.1

# of CT scanners<sup>a</sup> 2020 56.3

# of MRI scanners<sup>a</sup> 2020 16.5

# of PET or PET/CT scanners<sup>a</sup> 2020 1.2

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer

2019 yes

# of radiation oncologist<sup>a</sup> 2019 n/a

# of medical physicist<sup>a</sup> 2019 n/a

# of surgeons<sup>a</sup> 2014 123.1

# of radiologist<sup>a</sup> 2019 72.3

# of nuclear medicine physician<sup>a</sup> 2019 2.4

# of medical & pathology lab scientists<sup>a</sup> 2018 77.8

### FORMULATING RESPONSE

Integrated NCD plan 2019 operational

NCCP (including cancer types) 2019 operational

MPOWER measures fully implemented and achieved 2018 1

Cancer management guidelines 2019 yes

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

# of treatment services (surgery, radiotherapy, chemotherapy) 2019 2

Breast cancer screening program 2019 yes

Breast cancer screening program: Starting age, target population 2019 25

# Public cancer centres per 10,000 cancer patients 2019 1.2

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

Pathology services 2019 generally available

Bone marrow transplantation capacity 2019 generally not available

Palliative care availability: community/home-based care 2019 generally not available

Availability of opioids\* for pain management 2015-2017 116

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

#### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 33

Cervical cancer screening 2019 yes

Screening programme type 2019 opportunistic

Screening programme method 2019 PAP smear

Screening participation rates 2019 10%-50%

Early detection programme/guidelines 2019 yes

Defined referral system 2019 yes

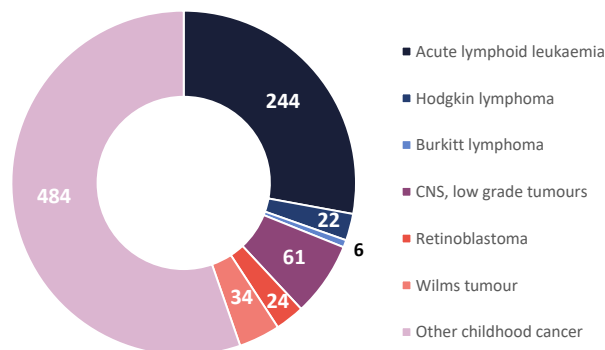
#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 875

Early detection programme/guidelines 2019 yes

Defined referral system 2019 yes

#### Annual cancer cases (0-14 years old)



\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

## BURDEN OF CANCER

Total population (2019)

**782,775**

Total # cancer cases  
(2018)

**751**

Total # cancer deaths  
(2018)

**471**

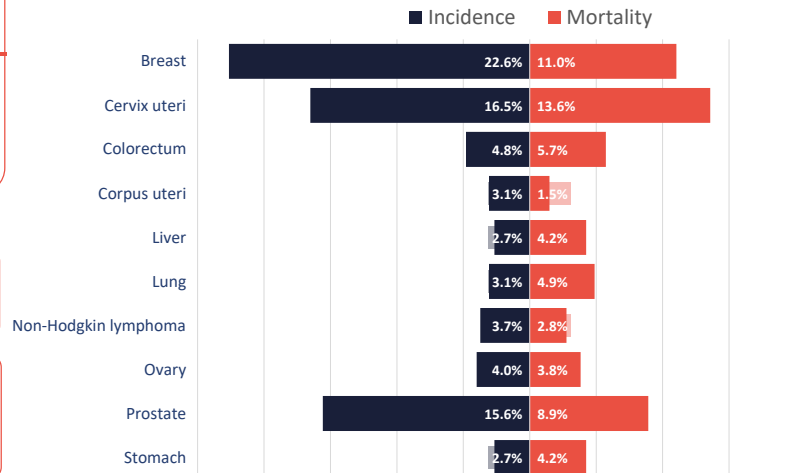
Premature deaths from NCDs (2016)

**2,479**

Cancer as % of NCD premature deaths (2016)

**13.8%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**10.9%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**4.9%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**21.4%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**5.1%**

Obesity (2012)<sup>b</sup>

**n/a**

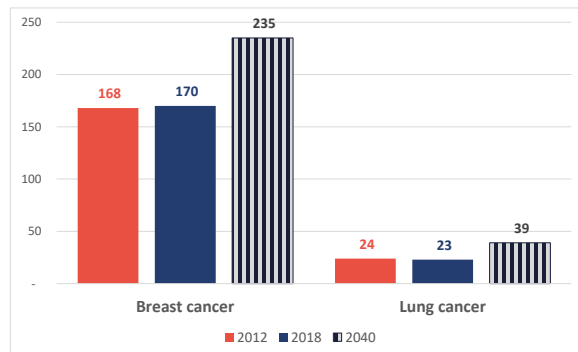
UV (2012)<sup>c</sup>

**1.3%**

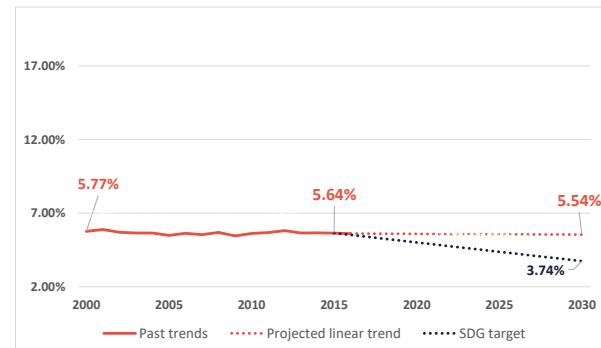
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

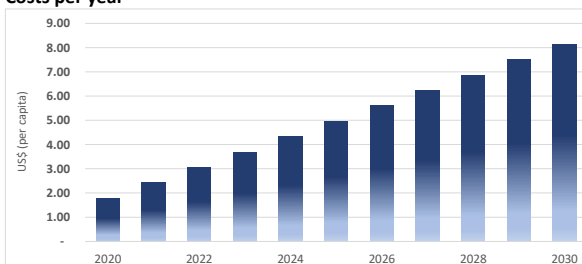


## INVESTMENT CASE (2019)

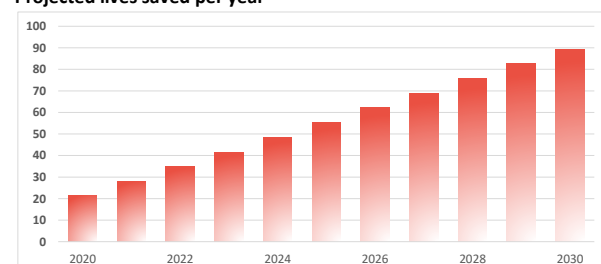
<sup>a</sup>Upper middle income

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR
Quality of mortality registration***	2007-2016	Medium
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	13.3
# of mammographs <sup>a</sup>	2020	53.3
# of CT scanners <sup>a</sup>	2020	66.6
# of MRI scanners <sup>a</sup>	2020	26.6
# of PET or PET/CT scanners <sup>a</sup>	2020	0.0

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	13.3
# of medical physicist <sup>a</sup>	2019	13.3
# of surgeons <sup>a</sup>	2014	599.2
# of radiologist <sup>a</sup>	2019	133.2
# of nuclear medicine physician <sup>a</sup>	2019	0.0
# of medical & pathology lab scientists <sup>a</sup>	2018	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational
NCCP (including cancer types)	2019	n/a
MPOWER measures fully implemented and achieved	2018	3
Cancer management guidelines	2019	no
Palliative care included in their operational, integrated NCD plan	2019	no
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	0
Breast cancer screening program	2019	no
Breast cancer screening program: Starting age, target population	2019	n/a

# Public cancer centres per 10,000 cancer patients	2019	13.3
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
Pathology services	2019	generally not available
Bone marrow transplantation capacity	2019	generally not available
Palliative care availability: community/home-based care	2019	generally not available
Availability of opioids* for pain management	2015-2017	92

\*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

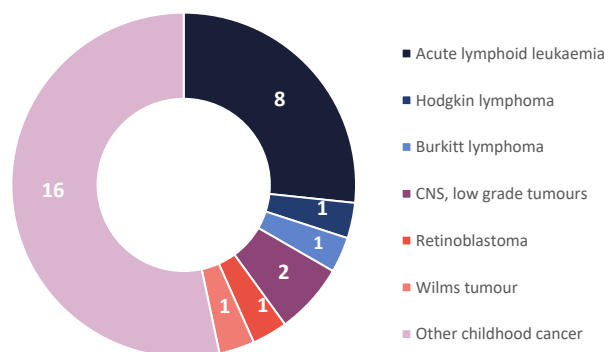
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	9
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	visual inspection
Screening participation rates	2019	10%-50%
Early detection programme/guidelines	2019	no
Defined referral system	2019	yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	30
Early detection programme/guidelines	2019	no
Defined referral system	2019	yes

#### Annual cancer cases (0-14 years old)



# HONDURAS

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**9,746,115**

Total # cancer cases  
(2018)

**9,942**

Total # cancer deaths  
(2018)

**5,964**

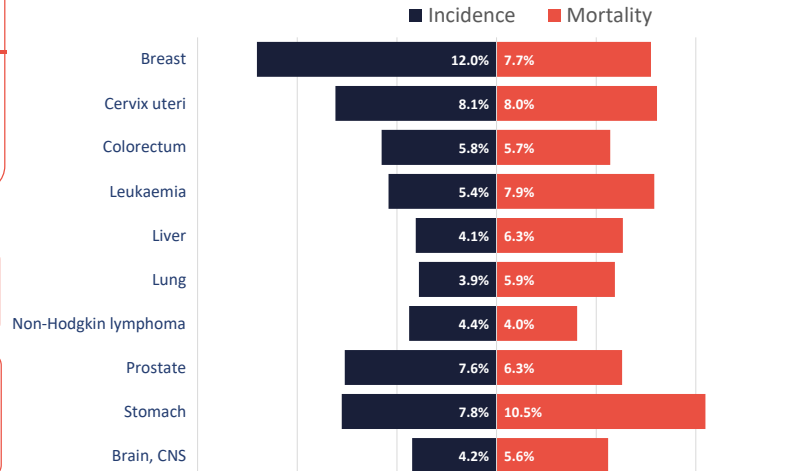
Premature deaths from NCDs (2016)

**10,204**

Cancer as % of NCD premature deaths (2016)

**28.3%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**14.7%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**3.3%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**29.9%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**4.1%**

Obesity (2012)<sup>b</sup>

**15.1%**

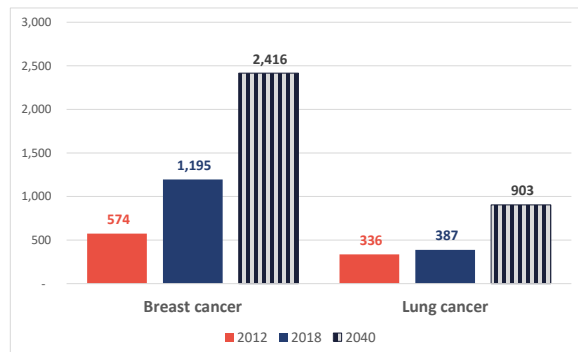
UV (2012)<sup>c</sup>

**1.7%**

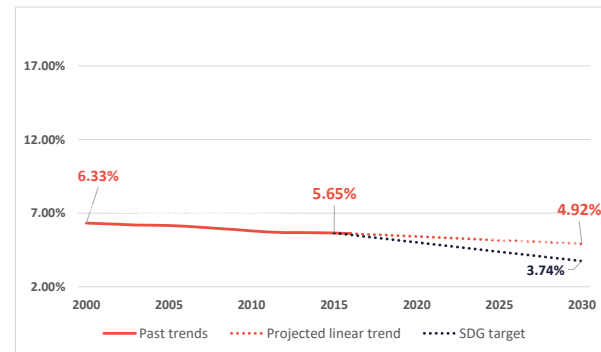
Occupational risk  
(2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

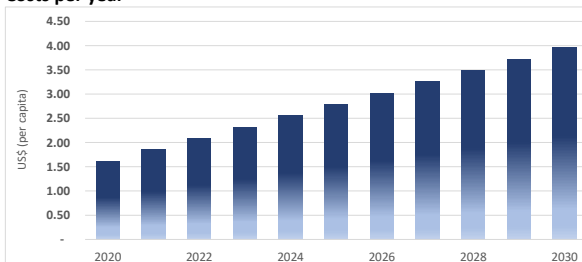


## INVESTMENT CASE (2019)

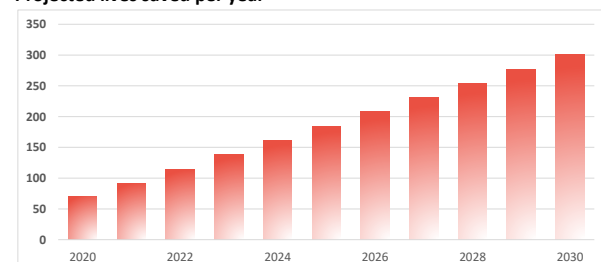
*\*Lower middle income*

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

Costs per year



Projected lives saved per year



# HONDURAS

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR
Quality of mortality registration***	2007-2016	Very low
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	7.0
# of mammographs <sup>a</sup>	2020	20.1
# of CT scanners <sup>a</sup>	2020	19.1
# of MRI scanners <sup>a</sup>	2020	10.1
# of PET or PET/CT scanners <sup>a</sup>	2020	1.0

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	n/a
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	n/a
# of surgeons <sup>a</sup>	2014	446.6
# of radiologist <sup>a</sup>	2019	83.5
# of nuclear medicine physician <sup>a</sup>	2019	1.0
# of medical & pathology lab scientists <sup>a</sup>	n/a	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	under development	# Public cancer centres per 10,000 cancer patients	2019	1.0
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	1 cancer(s)
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally not available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	51
Breast cancer screening program	2019	no	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	n/a			

### GLOBAL INITIATIVES

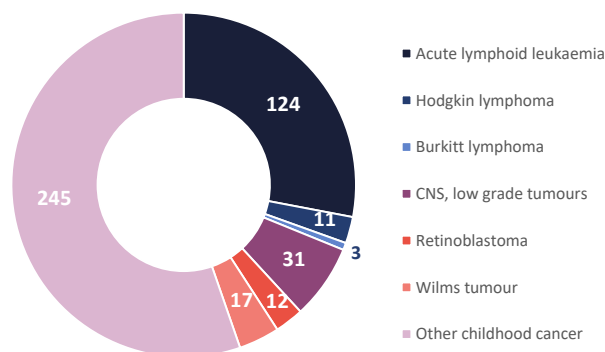
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	60.6
Cervical cancer screening	2019	no
Screening programme type	2019	n/a
Screening programme method	2019	n/a
Screening participation rates	2019	n/a
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	443
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Annual cancer cases (0-14 years old)



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

# CROATIA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**4,130,299**

Total # cancer cases  
(2018)

**25,221**

Total # cancer deaths  
(2018)

**14,439**

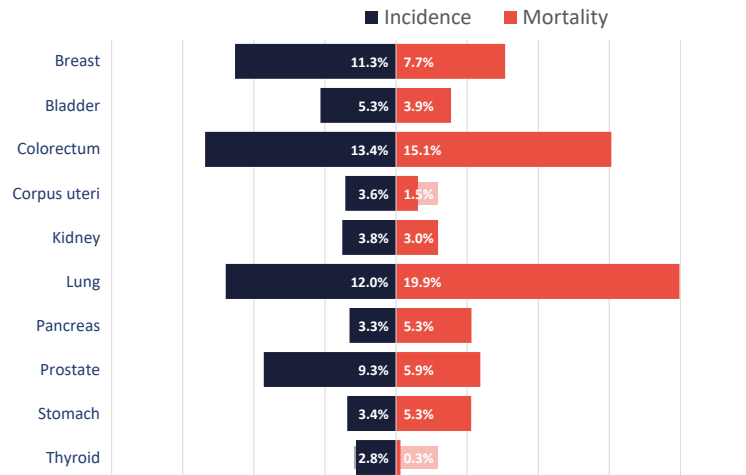
Premature deaths from NCDs (2016)

**11,890**

Cancer as % of NCD premature deaths (2016)

**47.9%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**30.3%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**9.2%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**7.5%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**5.6%**

Obesity (2012)<sup>b</sup>

**83.4%**

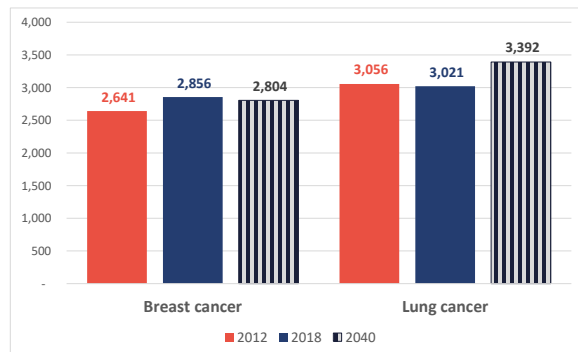
UV (2012)<sup>c</sup>

**6.2%**

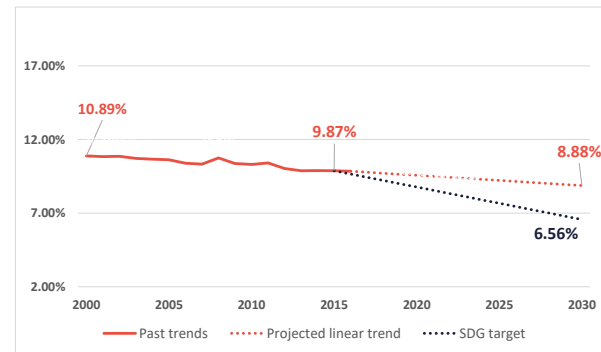
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

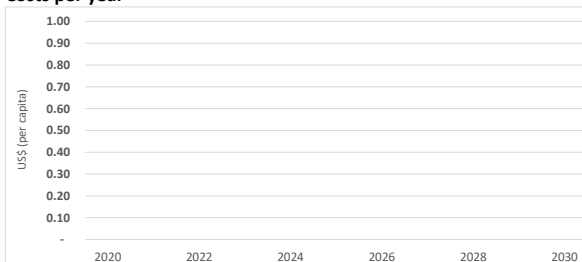


## INVESTMENT CASE (2019)

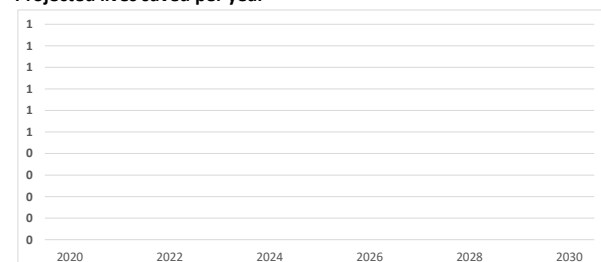
<sup>a</sup>High income

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

### Costs per year



### Projected lives saved per year



# CROATIA

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR
Quality of mortality registration***	2007-2016	High
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	7.1
# of mammographs <sup>a</sup>	2020	52.7
# of CT scanners <sup>a</sup>	2020	35.3
# of MRI scanners <sup>a</sup>	2020	18.2
# of PET or PET/CT scanners <sup>a</sup>	2020	2.0

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	21.0
# of surgeons <sup>a</sup>	2013	828.7
# of radiologist <sup>a</sup>	2019	312.8
# of nuclear medicine physician <sup>a</sup>	2019	25.8
# of medical & pathology lab scientists <sup>a</sup>	n/a	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	under development	# Public cancer centres per 10,000 cancer patients	2019	2.0
NCCP (including cancer types)	2019	under development	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	1 cancer(s)
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	1742
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	50			

### GLOBAL INITIATIVES

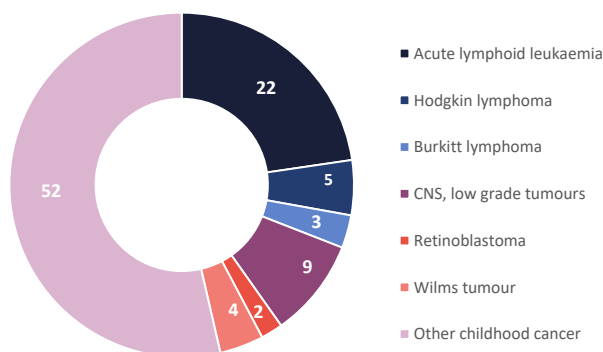
#### Elimination of Cervical Cancer

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	10%-50%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	97
Early detection programme/guidelines	2019	no
Defined referral system	2019	yes

#### Annual cancer cases (0-14 years old)





## BURDEN OF CANCER

Total population (2019)

**11,263,079**

Total # cancer cases  
(2018)

**12,366**

Total # cancer deaths  
(2018)

**8,914**

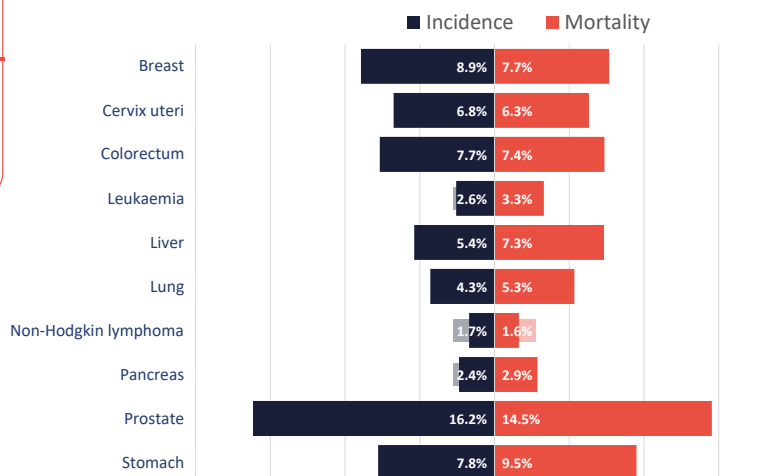
Premature deaths from NCDs (2016)

**23,323**

Cancer as % of NCD premature deaths (2016)

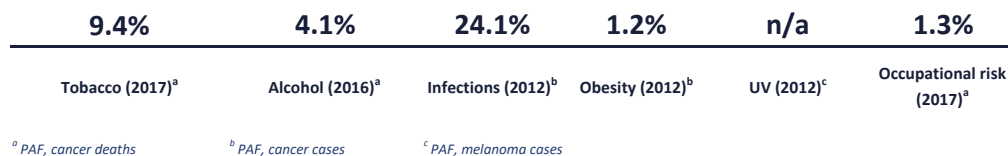
**13.8%**

### Most common cancer cases (2018)



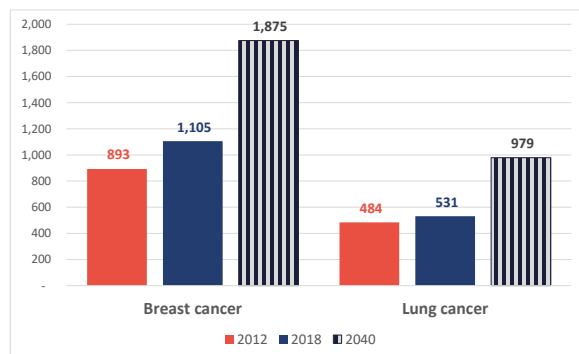
### PAFs

(population attributable fractions)

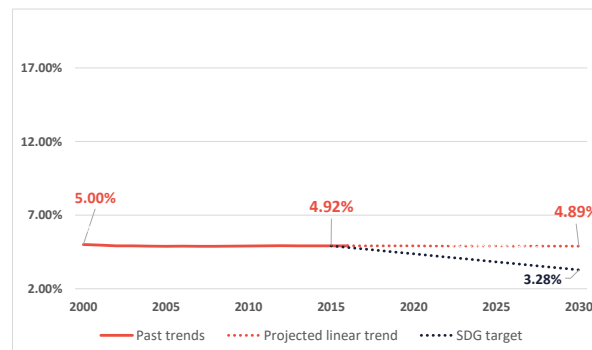


## TRENDS

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



### Probability of premature death from cancer per year

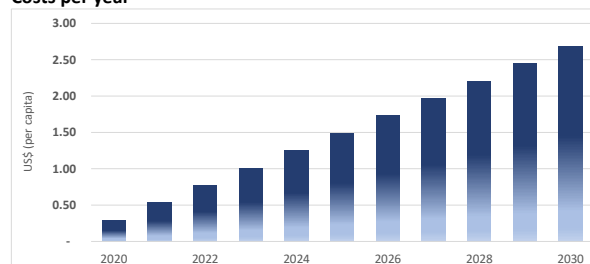


## INVESTMENT CASE (2019)

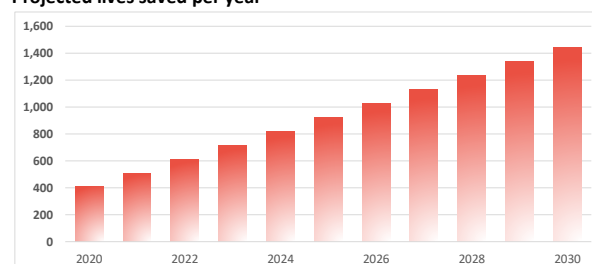
*\*Low income*

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

### Costs per year



### Projected lives saved per year



## HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	No information
---	------	----------------

Quality of mortality registration***	2007-2016	No coverage
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# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	0.0
--	------	-----

# of mammographs <sup>a</sup>	2020	8.9
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# of CT scanners <sup>a</sup>	2020	3.2
-------------------------------	------	-----

# of MRI scanners <sup>a</sup>	2020	0.8
--------------------------------	------	-----

# of PET or PET/CT scanners <sup>a</sup>	2020	0.0
--	------	-----

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	no
--	------	----

# of radiation oncologist <sup>a</sup>	2019	0.0
--	------	-----

# of medical physicist <sup>a</sup>	2019	0.0
-------------------------------------	------	-----

# of surgeons <sup>a</sup>	2014	93.0
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# of radiologist <sup>a</sup>	2019	32.3
-------------------------------	------	------

# of nuclear medicine physician <sup>a</sup>	2019	0.0
--	------	-----

# of medical & pathology lab scientists <sup>a</sup>	2018	n/a
--	------	-----

## FORMULATING RESPONSE

Integrated NCD plan	2019	n/a
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NCCP (including cancer types)	2019	not in effect
-------------------------------	------	---------------

MPOWER measures fully implemented and achieved	2018	0
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Cancer management guidelines	2019	yes
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Palliative care included in their operational, integrated NCD plan	2019	n/a
--	------	-----

# of treatment services (surgery, radiotherapy, chemotherapy)	2019	0
---	------	---

Breast cancer screening program	2019	yes
---------------------------------	------	-----

Breast cancer screening program: Starting age, target population	2019	40
--	------	----

# Public cancer centres per 10,000 cancer patients	2019	n/a
--	------	-----

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

Pathology services	2019	generally not available
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Bone marrow transplantation capacity	2019	don't know
--------------------------------------	------	------------

Palliative care availability: community/home-based care	2019	generally not available
---	------	-------------------------

Availability of opioids* for pain management	2015-2017	5
--	-----------	---

\*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day

## GLOBAL INITIATIVES

## Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
------------------------------------	------	-----

Cervical cancer screening	2019	yes
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Screening programme type	2019	opportunistic
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Screening programme method	2019	HPV test
----------------------------	------	----------

Screening participation rates	2019	don't know
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Early detection programme/guidelines	2019	yes
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Defined referral system	2019	don't know
-------------------------	------	------------

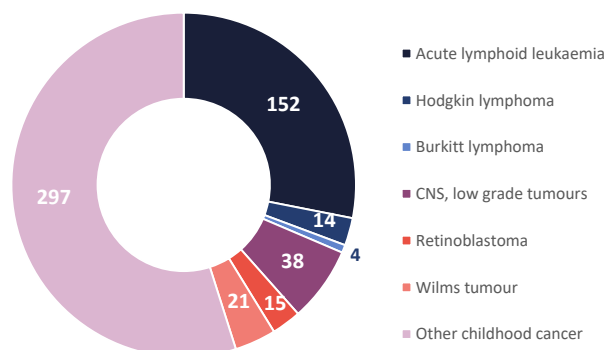
## Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	541
--------------------------------------	------	-----

Early detection programme/guidelines	2019	yes
--------------------------------------	------	-----

Defined referral system	2019	don't know
-------------------------	------	------------

## Annual cancer cases (0-14 years old)



\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

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

# HUNGARY

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**9,684,680**

Total # cancer cases (2018)

**70,454**

Total # cancer deaths (2018)

**33,010**

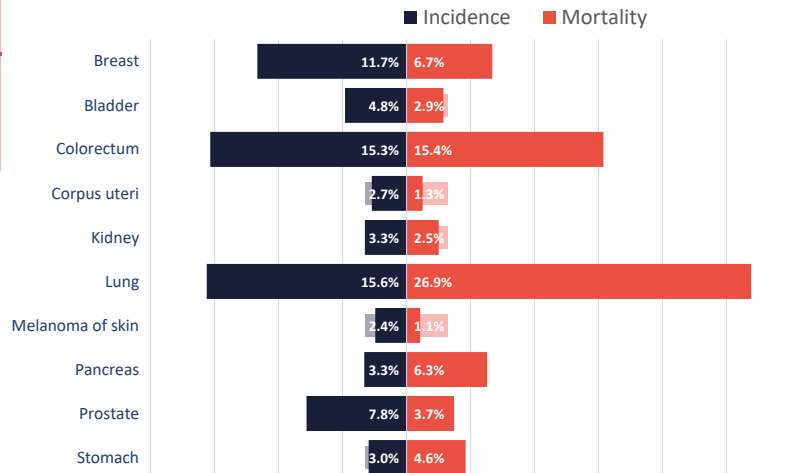
Premature deaths from NCDs (2016)

**39,156**

Cancer as % of NCD premature deaths (2016)

**41.7%**

## Most common cancer cases (2018)



## PAFs

(population attributable fractions)

**34.8%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**11.4%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**7.8%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**5.6%**

Obesity (2012)<sup>b</sup>

**77.5%**

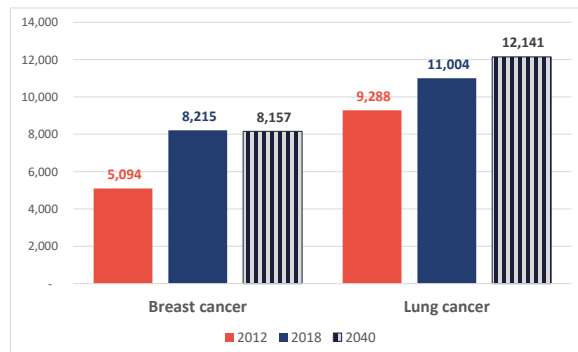
UV (2012)<sup>c</sup>

**2.6%**

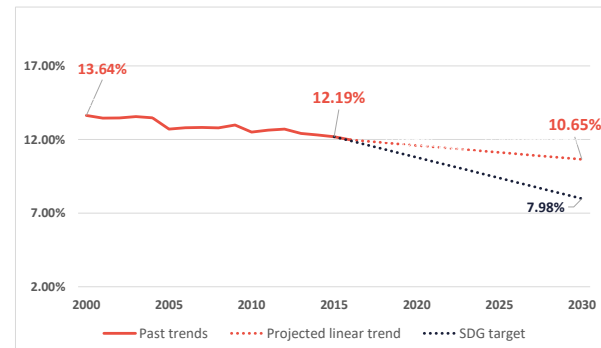
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

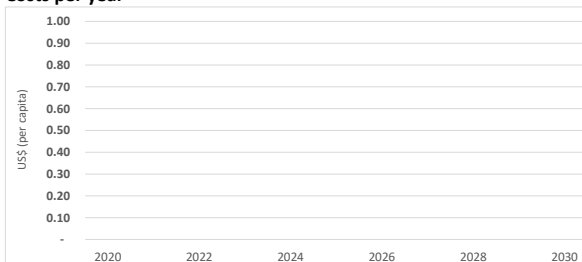


## INVESTMENT CASE (2019)

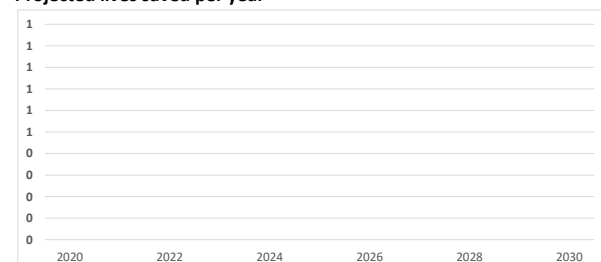
<sup>a</sup>High income

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

### Costs per year



### Projected lives saved per year



# HUNGARY

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	Registration activity	WORKFORCE		
Quality of mortality registration***	2007-2016	High	<sup>a</sup> per 10,000 cancer patients Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	5.5	# of radiation oncologist <sup>a</sup>	2019	12.5
# of mammographs <sup>a</sup>	2020	20.6	# of medical physicist <sup>a</sup>	2019	13.6
# of CT scanners <sup>a</sup>	2020	17.9	# of surgeons <sup>a</sup>	2011	452.6
# of MRI scanners <sup>a</sup>	2020	7.9	# of radiologist <sup>a</sup>	2019	n/a
# of PET or PET/CT scanners <sup>a</sup>	2020	0.9	# of nuclear medicine physician <sup>a</sup>	2019	15.6
			# of medical & pathology lab scientists <sup>a</sup>	n/a	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients	2019	3.7
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s)
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	n/a	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	4437
Breast cancer screening program	2019	yes			
Breast cancer screening program: Starting age, target population	2019	45			

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

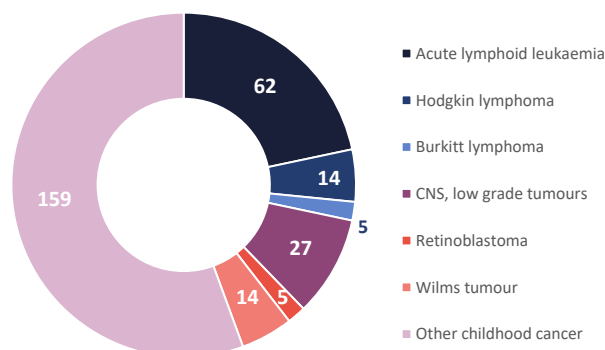
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	70.7
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	10%-50%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	286
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Annual cancer cases (0-14 years old)



\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

# INDONESIA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**270,625,567**

Total # cancer cases (2018)

**348,809**

Total # cancer deaths (2018)

**207,210**

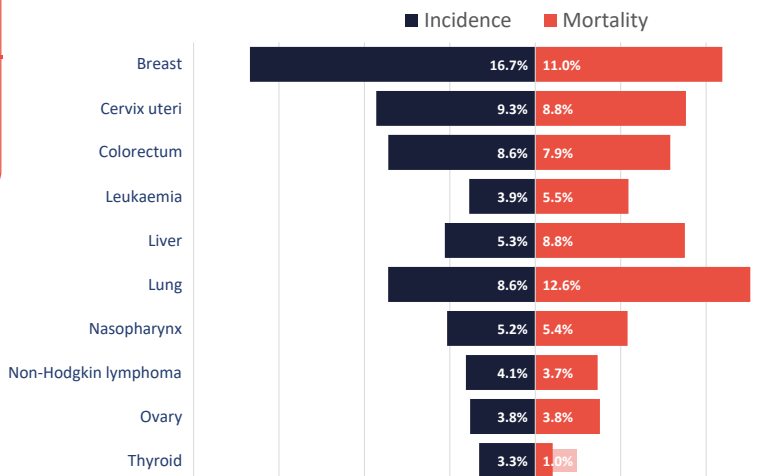
Premature deaths from NCDs (2016)

**686,532**

Cancer as % of NCD premature deaths (2016)

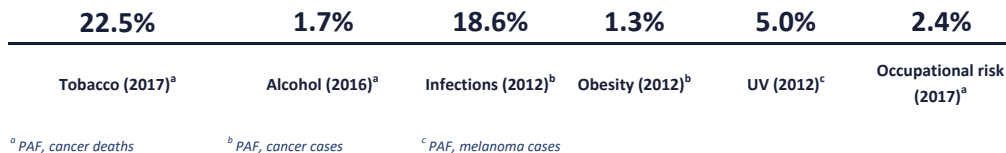
**18.6%**

### Most common cancer cases (2018)



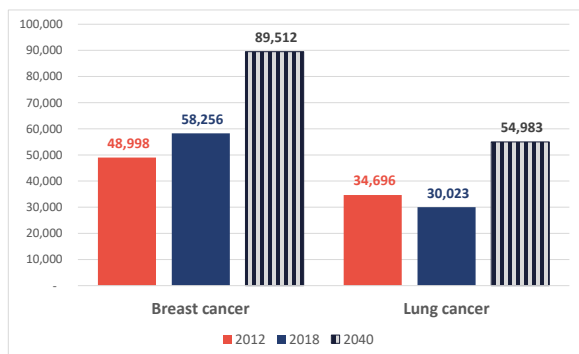
### PAFs

(population attributable fractions)

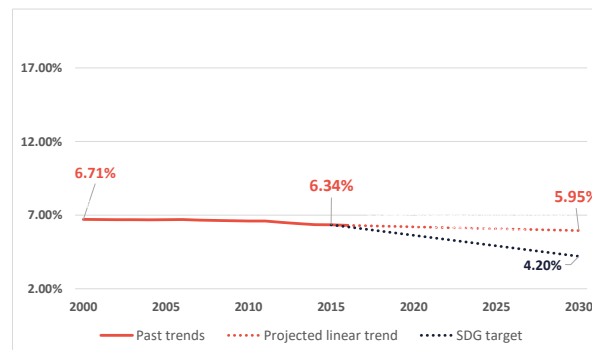


## TRENDS

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



### Probability of premature death from cancer per year

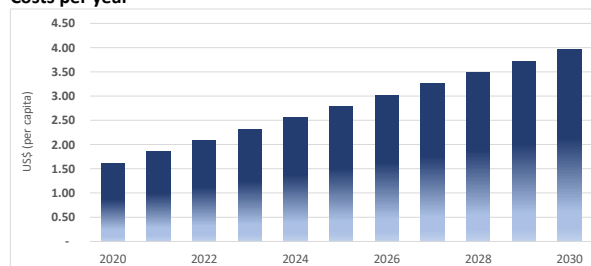


## INVESTMENT CASE (2019)

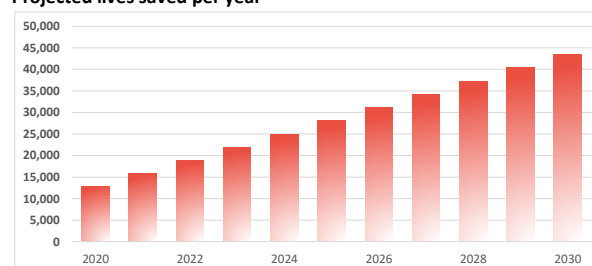
*\*Lower middle income*

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

### Costs per year



### Projected lives saved per year



# INDONESIA

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR
Quality of mortality registration***	2007-2016	No coverage
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	1.7
# of mammographs <sup>a</sup>	2020	n/a
# of CT scanners <sup>a</sup>	2020	7.9
# of MRI scanners <sup>a</sup>	2020	2.0
# of PET or PET/CT scanners <sup>a</sup>	2020	0.2

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	1.2
# of medical physicist <sup>a</sup>	2019	0.9
# of surgeons <sup>a</sup>	n/a	n/a
# of radiologist <sup>a</sup>	2019	25.8
# of nuclear medicine physician <sup>a</sup>	2019	1.0
# of medical & pathology lab scientists <sup>a</sup>	2009	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	0.4
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	don't know
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	21
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	30			

### GLOBAL INITIATIVES

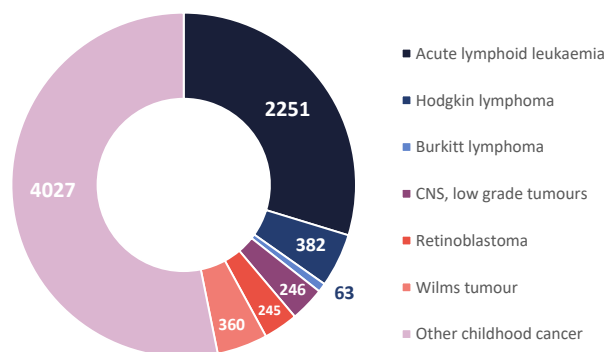
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	0.5
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	visual inspection
Screening participation rates	2019	<10%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	7574
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Annual cancer cases (0-14 years old)



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

# INDIA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**1,366,417,756**

Total # cancer cases (2018)

**1,157,294**

Total # cancer deaths (2018)

**784,821**

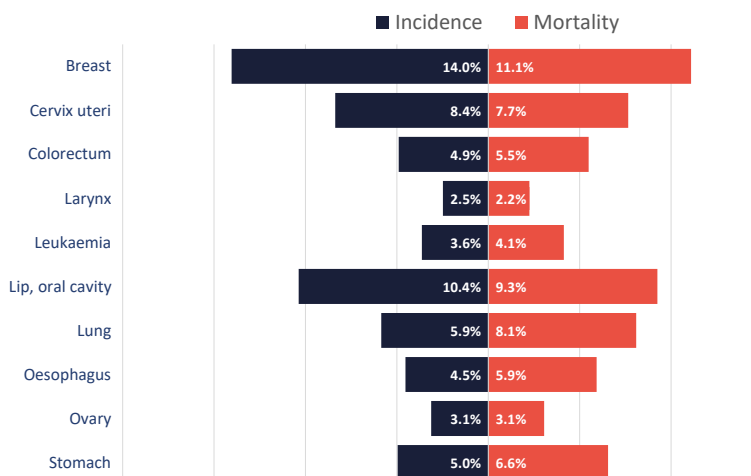
Premature deaths from NCDs (2016)

**3,022,150**

Cancer as % of NCD premature deaths (2016)

**19.1%**

## Most common cancer cases (2018)



## PAFs

(population attributable fractions)

**17.4%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**6.5%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**21.7%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**0.7%**

Obesity (2012)<sup>b</sup>

**0.0%**

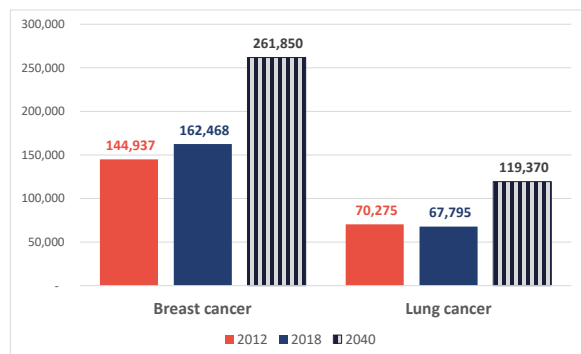
UV (2012)<sup>c</sup>

**1.6%**

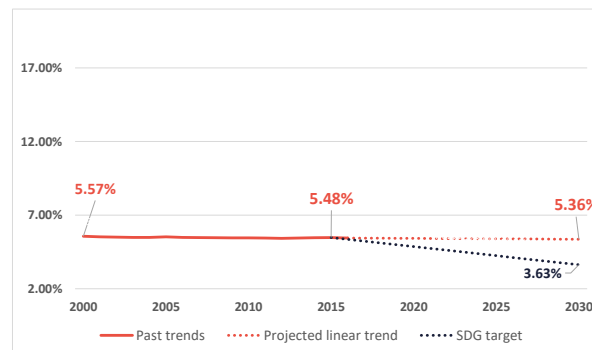
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

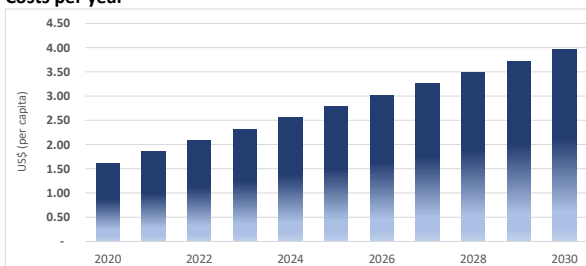


## INVESTMENT CASE (2019)

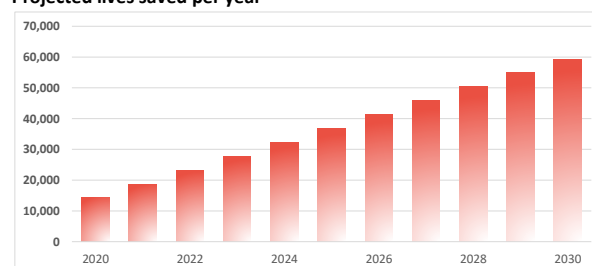
*\*Lower middle income*

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 High quality PBCR

Quality of mortality registration\*\*\* 2007-2016 Very low

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 5.4# of mammographs<sup>a</sup> 2020 23.3# of CT scanners<sup>a</sup> 2020 73.4# of MRI scanners<sup>a</sup> 2020 17.5# of PET or PET/CT scanners<sup>a</sup> 2020 2.3

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 yes

# of radiation oncologist<sup>a</sup> 2019 3.1# of medical physicist<sup>a</sup> 2019 15.6# of surgeons<sup>a</sup> 2009 272.7# of radiologist<sup>a</sup> 2019 345.6# of nuclear medicine physician<sup>a</sup> 2019 3.5# of medical & pathology lab scientists<sup>a</sup> n/a n/a

## FORMULATING RESPONSE

Integrated NCD plan 2019 operational

NCCP (including cancer types) 2019 operational

MPOWER measures fully implemented and achieved 2018 2

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 2.6

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 not available

Availability of opioids\* for pain management 2015-2017 19

\*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day

## GLOBAL INITIATIVES

## Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 n/a

Cervical cancer screening 2019 yes

Screening programme type 2019 organised

Screening programme method 2019 visual inspection

Screening participation rates 2019 70% or more

Early detection programme/guidelines 2019 yes

Defined referral system 2019 yes

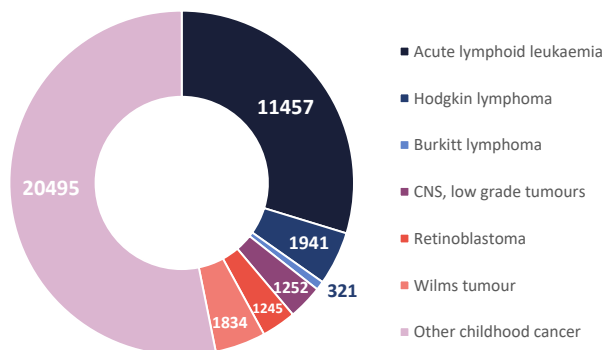
## Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 38545

Early detection programme/guidelines 2019 yes

Defined referral system 2019 yes

## Annual cancer cases (0-14 years old)



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



# IRELAND

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**4,882,498**

Total # cancer cases  
(2018)

**30,272**

Total # cancer deaths  
(2018)

**9,621**

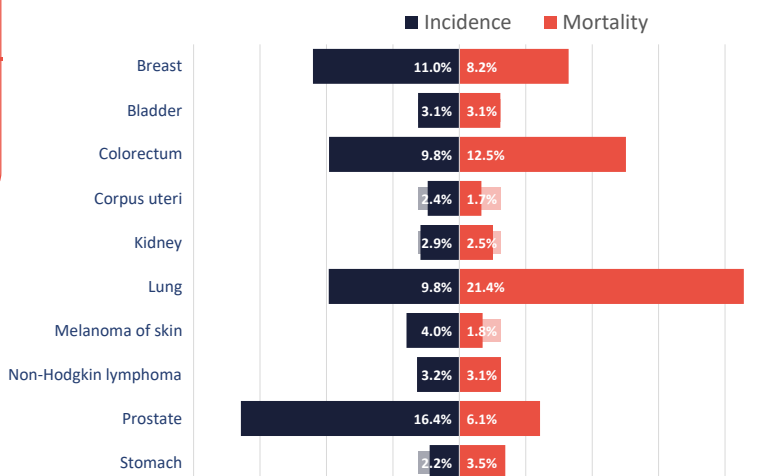
Premature deaths from NCDs (2016)

**6,672**

Cancer as % of NCD premature deaths (2016)

**50.8%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**27.2%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**8.4%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**5.1%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**5.4%**

Obesity (2012)<sup>b</sup>

**89.7%**

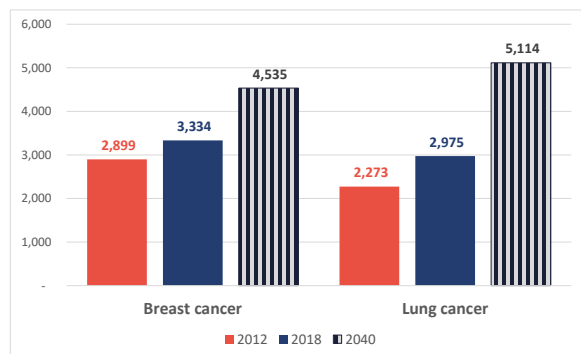
UV (2012)<sup>c</sup>

**5.0%**

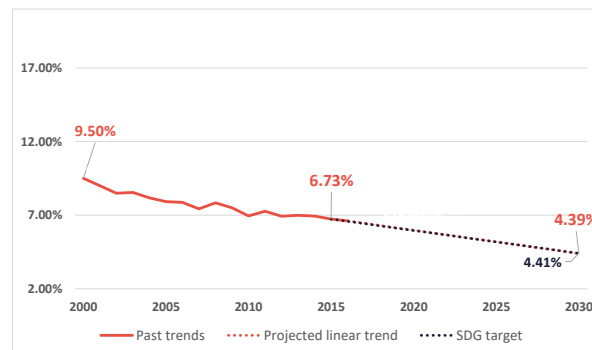
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

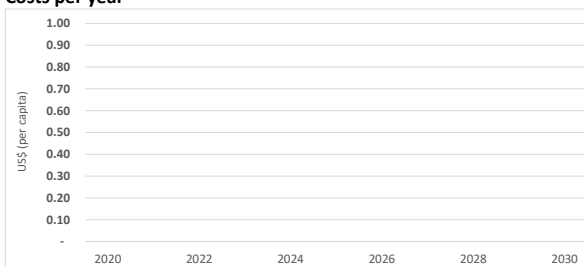


## INVESTMENT CASE (2019)

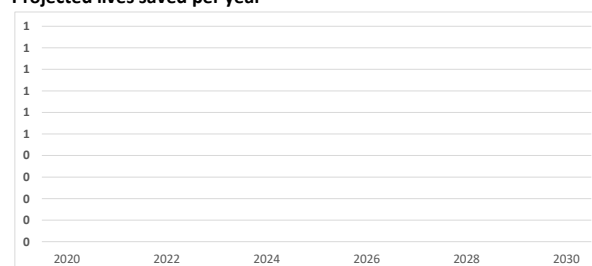
<sup>a</sup>High income

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

### Costs per year



### Projected lives saved per year



# IRELAND

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR
Quality of mortality registration***	2007-2016	High
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	12.6
# of mammographs <sup>a</sup>	2020	25.4
# of CT scanners <sup>a</sup>	2020	34.7
# of MRI scanners <sup>a</sup>	2020	28.1
# of PET or PET/CT scanners <sup>a</sup>	2020	3.0

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	10.6
# of medical physicist <sup>a</sup>	2019	68.0
# of surgeons <sup>a</sup>	2014	727.1
# of radiologist <sup>a</sup>	2019	128.3
# of nuclear medicine physician <sup>a</sup>	2019	n/a
# of medical & pathology lab scientists <sup>a</sup>	n/a	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	2.6
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s)
MPOWER measures fully implemented and achieved	2018	4	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	6500
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	50			

### GLOBAL INITIATIVES

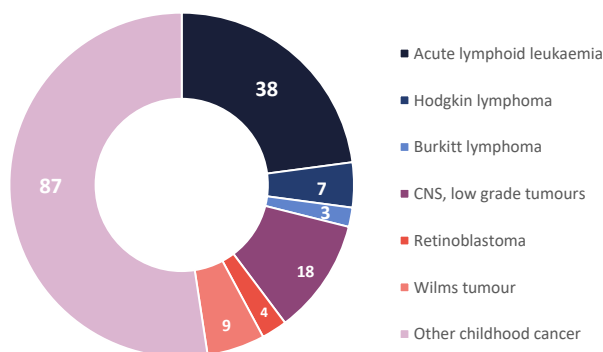
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	62
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	70% or more
Early detection programme/guidelines	2019	no
Defined referral system	2019	yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	166
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Annual cancer cases (0-14 years old)



# IRAN, ISLAMIC REPUBLIC OF

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**82,913,893**

Total # cancer cases  
(2018)

**110,115**

Total # cancer deaths  
(2018)

**55,785**

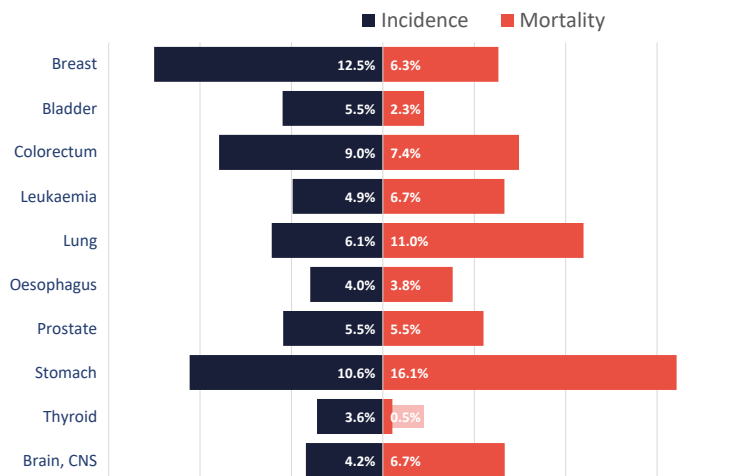
Premature deaths from NCDs (2016)

**94,604**

Cancer as % of NCD premature deaths (2016)

**34.2%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

n/a

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

0.7%

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

12.6%

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

n/a

Obesity (2012)<sup>b</sup>

n/a

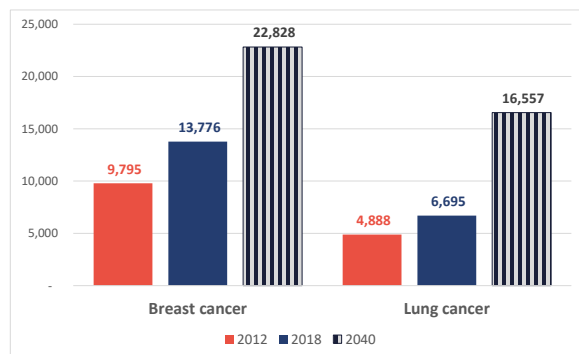
UV (2012)<sup>c</sup>

3.8%

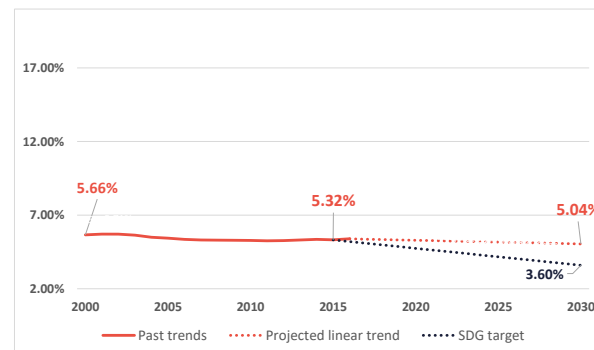
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

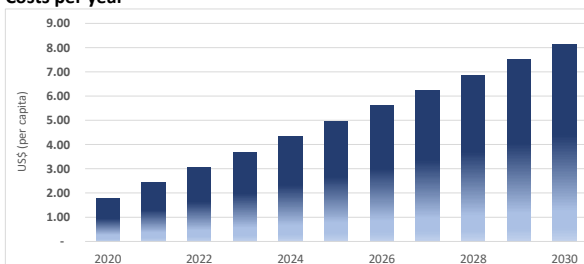


## INVESTMENT CASE (2019)

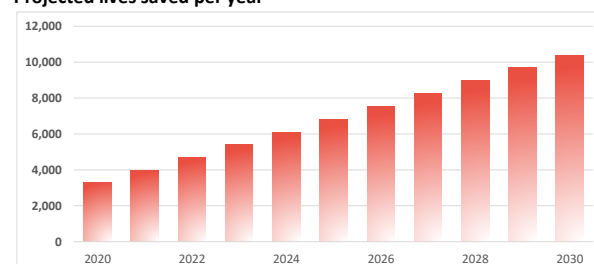
*\*Upper middle income*

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

### Costs per year



### Projected lives saved per year



# IRAN, ISLAMIC REPUBLIC OF

Cancer Country Profile 2020

## HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 **High quality PBCR**

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

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 **11.0**

# of mammographs<sup>a</sup> 2020 **58.6**

# of CT scanners<sup>a</sup> 2020 **77.5**

# of MRI scanners<sup>a</sup> 2020 **27.5**

# of PET or PET/CT scanners<sup>a</sup> 2020 **0.5**

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 **yes**

# of radiation oncologist<sup>a</sup> 2019 **22.2**

# of medical physicist<sup>a</sup> 2019 **31.8**

# of surgeons<sup>a</sup> 2014 **115.5**

# of radiologist<sup>a</sup> 2019 **211.1**

# of nuclear medicine physician<sup>a</sup> 2019 **18.2**

# of medical & pathology lab scientists<sup>a</sup> 2006 **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 **3.4**

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 available**

Palliative care availability: community/home-based care 2019 **generally not available**

Availability of opioids\* for pain management 2015-2017 **29**

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

## GLOBAL INITIATIVES

### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 **n/a**

Cervical cancer screening 2019 **yes**

Screening programme type 2019 **organised**

Screening programme method 2019 **HPV test**

Screening participation rates 2019 **<10%**

Early detection programme/guidelines 2019 **yes**

Defined referral system 2019 **yes**

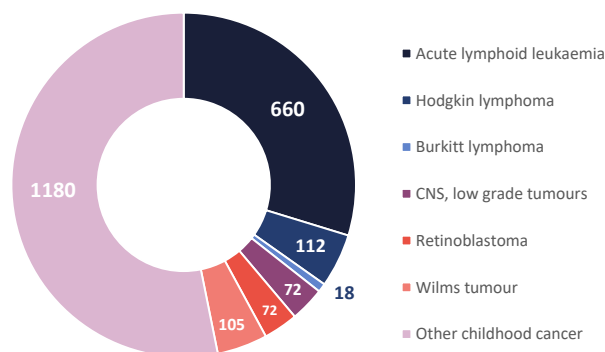
### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 **2219**

Early detection programme/guidelines 2019 **no**

Defined referral system 2019 **no**

### Annual cancer cases (0-14 years old)



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

## BURDEN OF CANCER

Total population (2019)

**39,309,789**

Total # cancer cases (2018)

**25,320**

Total # cancer deaths (2018)

**14,524**

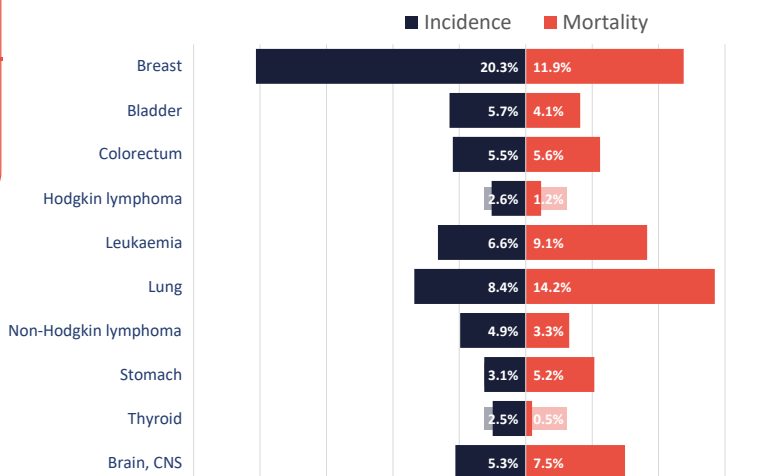
Premature deaths from NCDs (2016)

**40,451**

Cancer as % of NCD premature deaths (2016)

**29.4%**

## Most common cancer cases (2018)



## PAFs

(population attributable fractions)

**18.4%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**0.7%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**9.3%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**3.7%**

Obesity (2012)<sup>b</sup>

**0.0%**

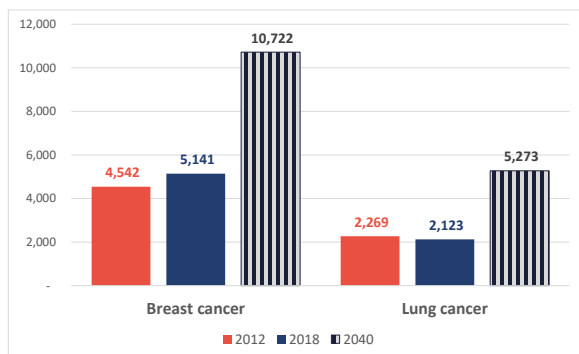
UV (2012)<sup>c</sup>

**1.8%**

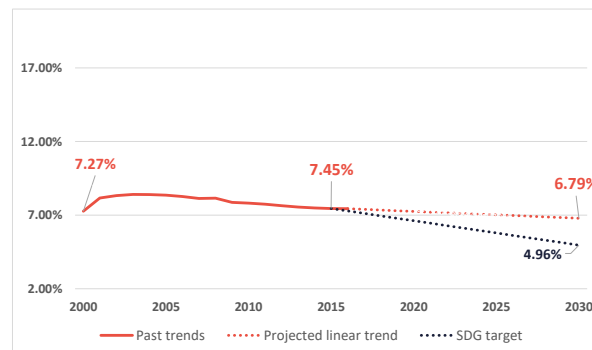
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

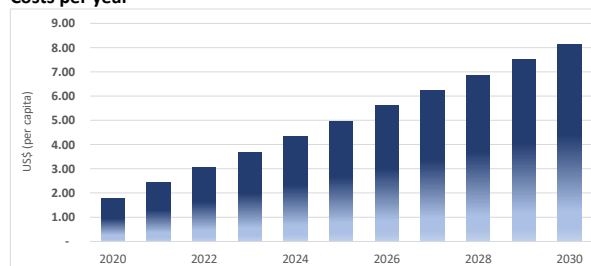


## INVESTMENT CASE (2019)

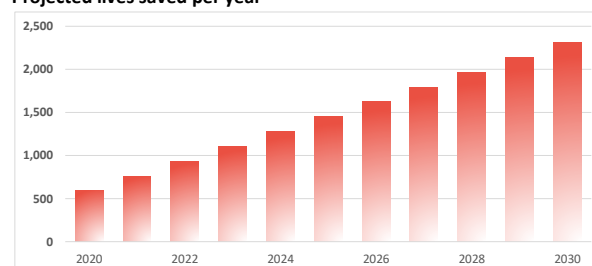
*\*Upper middle income*

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR
Quality of mortality registration***	2007-2016	Low
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	7.5
# of mammographs <sup>a</sup>	2020	19.4
# of CT scanners <sup>a</sup>	2020	74.2
# of MRI scanners <sup>a</sup>	2020	49.4
# of PET or PET/CT scanners <sup>a</sup>	2020	2.8

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	23.7
# of surgeons <sup>a</sup>	2013	423.0
# of radiologist <sup>a</sup>	2019	n/a
# of nuclear medicine physician <sup>a</sup>	2019	4.3
# of medical & pathology lab scientists <sup>a</sup>	n/a	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	17.4
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	0
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	40			

### GLOBAL INITIATIVES

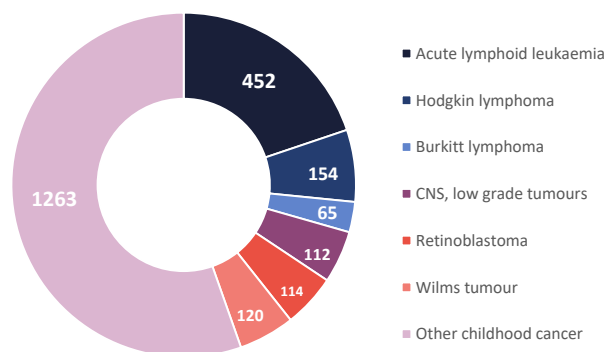
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	no
Screening programme type	2019	n/a
Screening programme method	2019	n/a
Screening participation rates	2019	n/a
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	2280
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Annual cancer cases (0-14 years old)



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

# ICELAND

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**339,037**

Total # cancer cases  
(2018)

**1,510**

Total # cancer deaths  
(2018)

**662**

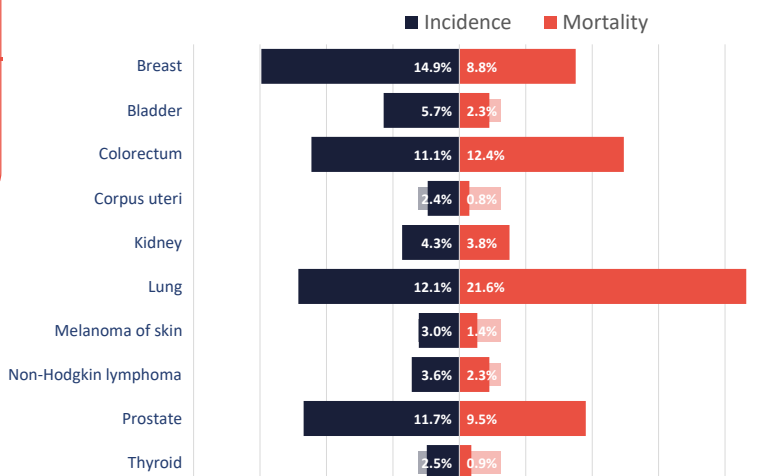
Premature deaths from NCDs (2016)

**407**

Cancer as % of NCD premature deaths (2016)

**54.7%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**25.4%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**5.5%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**3.7%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**5.1%**

Obesity (2012)<sup>b</sup>

**86.1%**

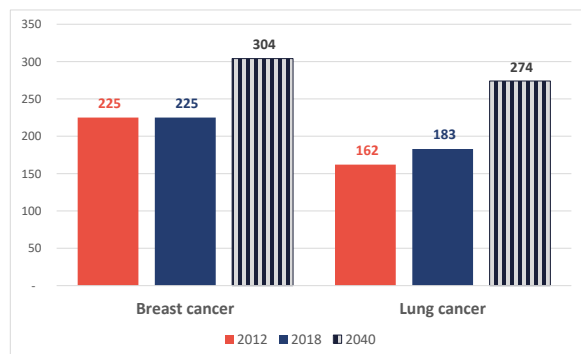
UV (2012)<sup>c</sup>

**6.6%**

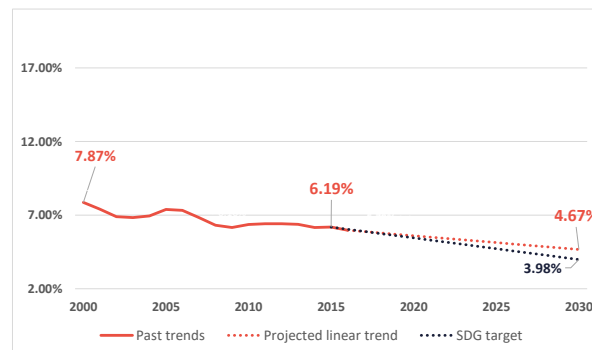
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

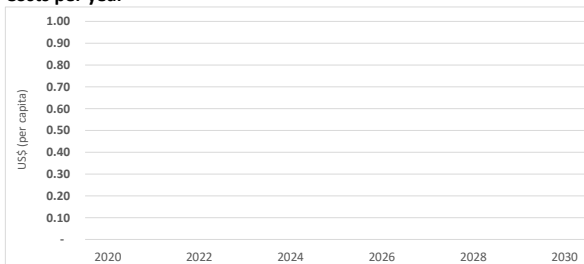


## INVESTMENT CASE (2019)

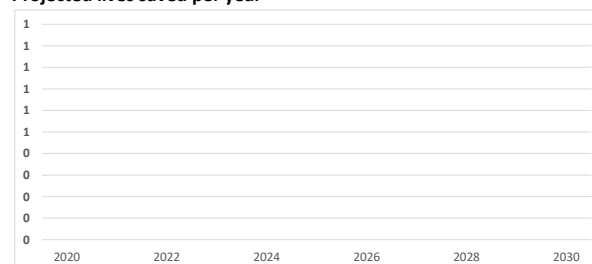
*\*High income*

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

### Costs per year



### Projected lives saved per year



# ICELAND

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 **High quality PBCR**

Quality of mortality registration\*\*\* 2007-2016 **High**

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 **13.2**

# of mammographs<sup>a</sup> 2020 **39.7**

# of CT scanners<sup>a</sup> 2020 **99.3**

# of MRI scanners<sup>a</sup> 2020 **46.4**

# of PET or PET/CT scanners<sup>a</sup> 2020 **6.6**

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 **yes**

# of radiation oncologist<sup>a</sup> 2019 **19.9**

# of medical physicist<sup>a</sup> 2019 **n/a**

# of surgeons<sup>a</sup> 2014 **1106.0**

# of radiologist<sup>a</sup> 2019 **n/a**

# of nuclear medicine physician<sup>a</sup> 2019 **n/a**

# of medical & pathology lab scientists<sup>a</sup> 2009 **1980.1**

### FORMULATING RESPONSE

Integrated NCD plan 2019 **operational**

NCCP (including cancer types) 2019 **operational**

MPOWER measures fully implemented and achieved 2018 **0**

Cancer management guidelines 2019 **yes**

Palliative care included in their operational, integrated NCD plan 2019 **no**

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

Breast cancer screening program 2019 **yes**

Breast cancer screening program: Starting age, target population 2019 **40**

# Public cancer centres per 10,000 cancer patients 2019 **6.6**

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

Pathology services 2019 **generally available**

Bone marrow transplantation capacity 2019 **generally available**

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

Availability of opioids\* for pain management 2015-2017 **12841**

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

#### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 **85**

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**

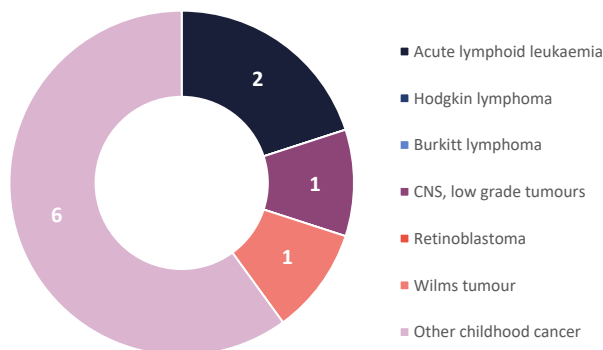
#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 **10**

Early detection programme/guidelines 2019 **yes**

Defined referral system 2019 **yes**

#### Annual cancer cases (0-14 years old)





# ISRAEL

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**8,519,373**

Total # cancer cases  
(2018)

**26,751**

Total # cancer deaths  
(2018)

**12,315**

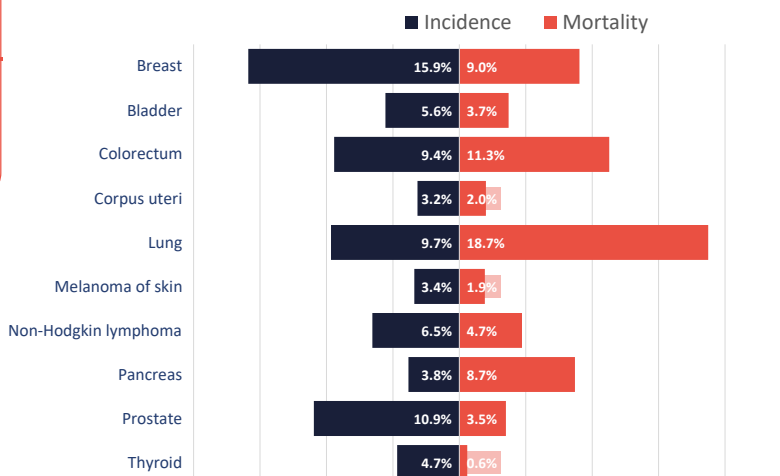
Premature deaths from NCDs (2016)

**9,049**

Cancer as % of NCD premature deaths (2016)

**52.0%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**22.1%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**4.2%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**6.0%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**6.6%**

Obesity (2012)<sup>b</sup>

**88.2%**

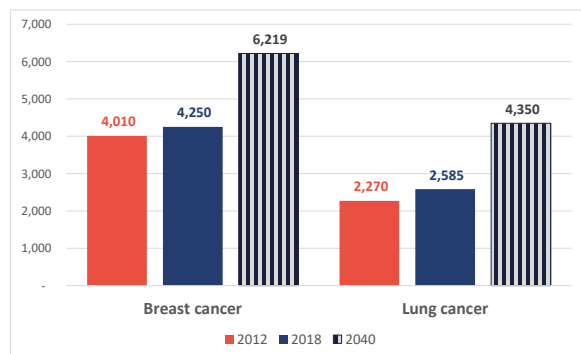
UV (2012)<sup>c</sup>

**3.1%**

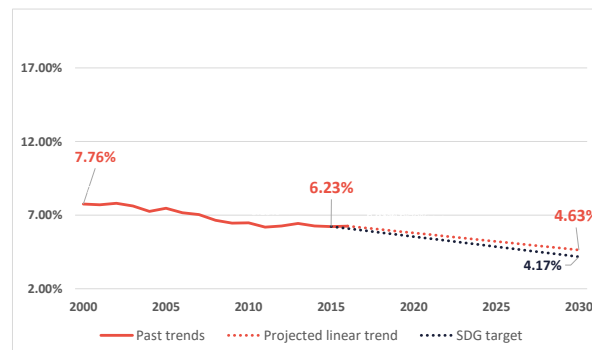
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

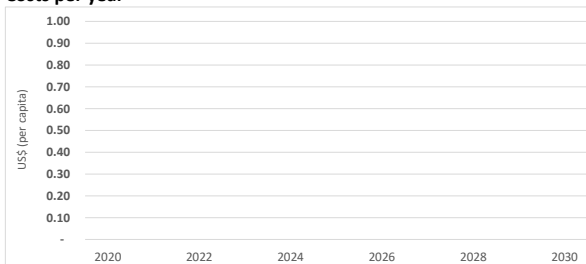


## INVESTMENT CASE (2019)

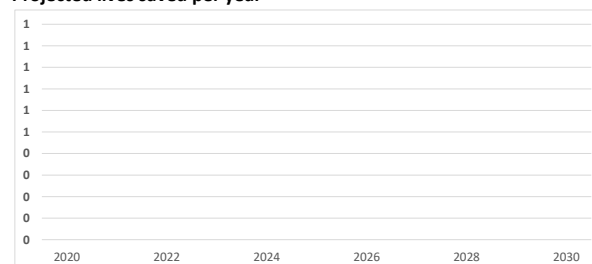
<sup>a</sup>High income

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 High quality PBCR

Quality of mortality registration\*\*\* 2007-2016 High

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 12.3# of mammographs<sup>a</sup> 2020 35.1# of CT scanners<sup>a</sup> 2020 43.7# of MRI scanners<sup>a</sup> 2020 23.6# of PET or PET/CT scanners<sup>a</sup> 2020 3.7

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 yes

# of radiation oncologist<sup>a</sup> 2019 n/a# of medical physicist<sup>a</sup> 2019 n/a# of surgeons<sup>a</sup> 2013 1181.6# of radiologist<sup>a</sup> 2019 n/a# of nuclear medicine physician<sup>a</sup> 2019 28.0# of medical & pathology lab scientists<sup>a</sup> n/a n/a

## FORMULATING RESPONSE

Integrated NCD plan 2019 operational

NCCP (including cancer types) 2019 operational

MPOWER measures fully implemented and achieved 2018 1

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 50

# Public cancer centres per 10,000 cancer patients 2019 3.0

Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood) 2019 0 cancer(s)

Pathology services 2019 generally available

Bone marrow transplantation capacity 2019 generally available

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

Availability of opioids\* for pain management 2015-2017 11538

\*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day

## GLOBAL INITIATIVES

## Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 50.3

Cervical cancer screening 2019 yes

Screening programme type 2019 opportunistic

Screening programme method 2019 PAP smear

Screening participation rates 2019 10%-50%

Early detection programme/guidelines 2019 no

Defined referral system 2019 no

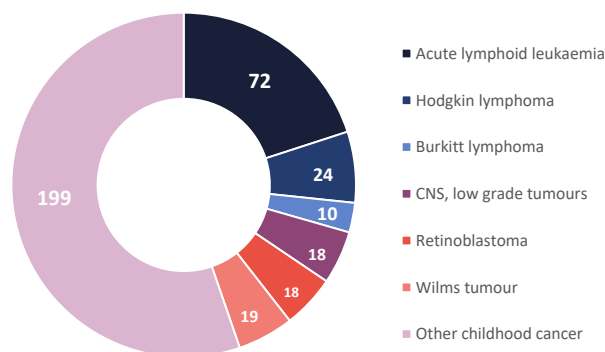
## Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 360

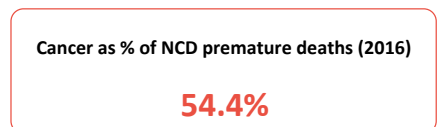
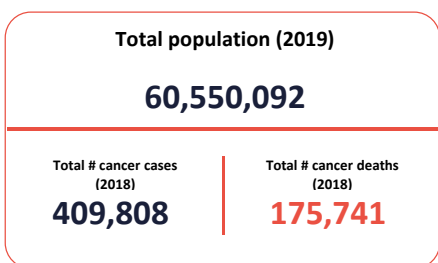
Early detection programme/guidelines 2019 no

Defined referral system 2019 no

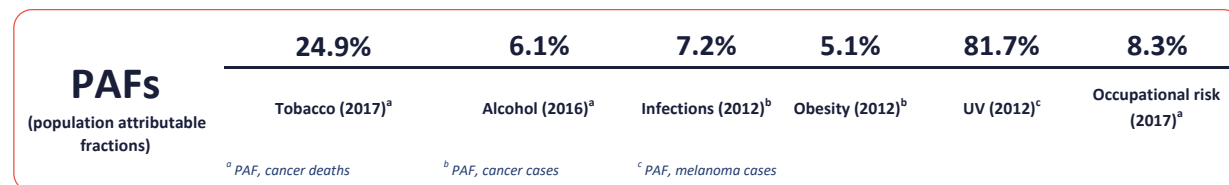
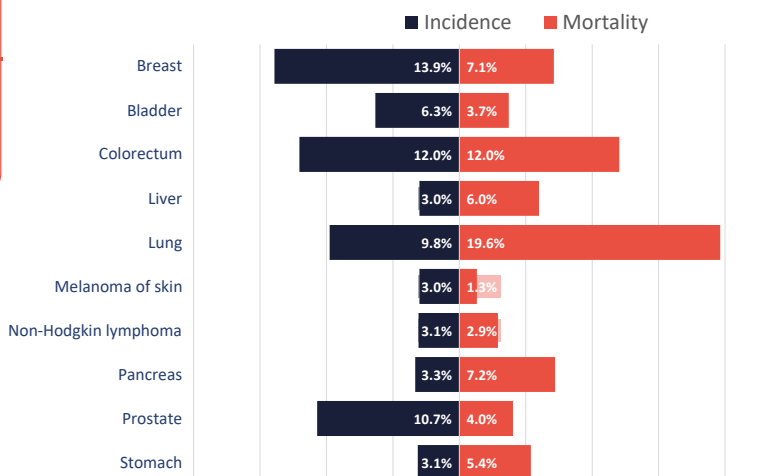
## Annual cancer cases (0-14 years old)



## BURDEN OF CANCER

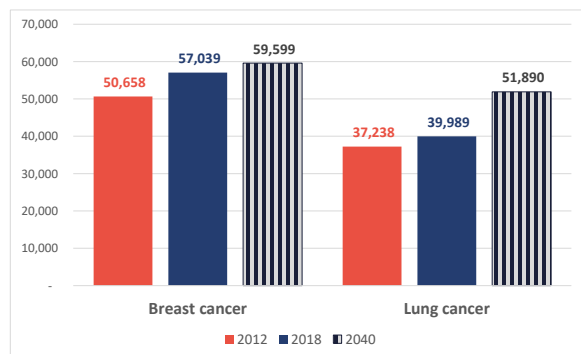


## Most common cancer cases (2018)

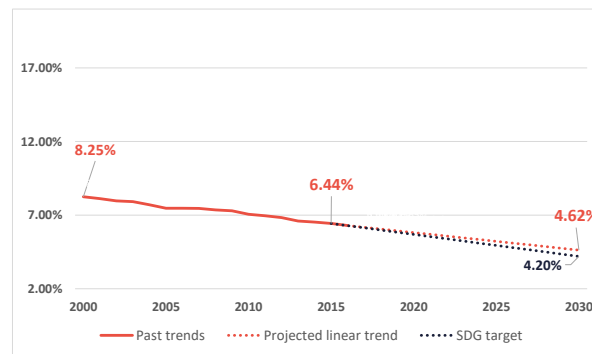


## TRENDS

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



### Probability of premature death from cancer per year

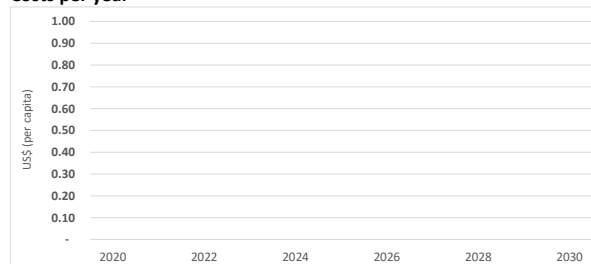


## INVESTMENT CASE (2019)

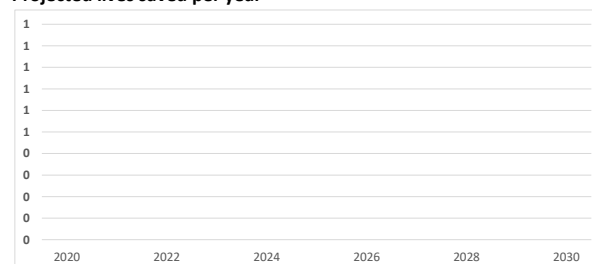
\*High income

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR
Quality of mortality registration***	2007-2016	High
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	10.3
# of mammographs <sup>a</sup>	2020	50.5
# of CT scanners <sup>a</sup>	2020	51.7
# of MRI scanners <sup>a</sup>	2020	42.0
# of PET or PET/CT scanners <sup>a</sup>	2020	4.5

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	24.8
# of surgeons <sup>a</sup>	2011	296.4
# of radiologist <sup>a</sup>	2019	44.2
# of nuclear medicine physician <sup>a</sup>	2019	17.1
# of medical & pathology lab scientists <sup>a</sup>	n/a	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	4.9
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s)
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	4905
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	50			

### GLOBAL INITIATIVES

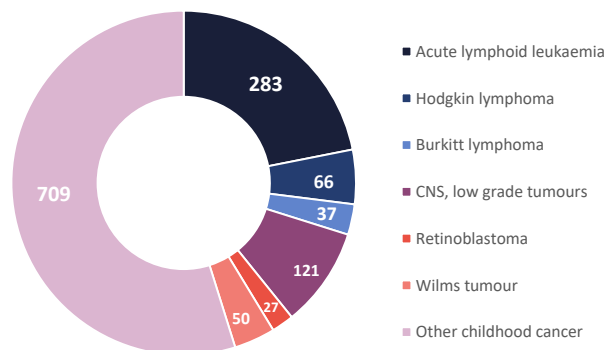
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	40.2
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	70% or more
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	1293
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Annual cancer cases (0-14 years old)



# JAMAICA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**2,948,277**

Total # cancer cases  
(2018)

**7,348**

Total # cancer deaths  
(2018)

**4,746**

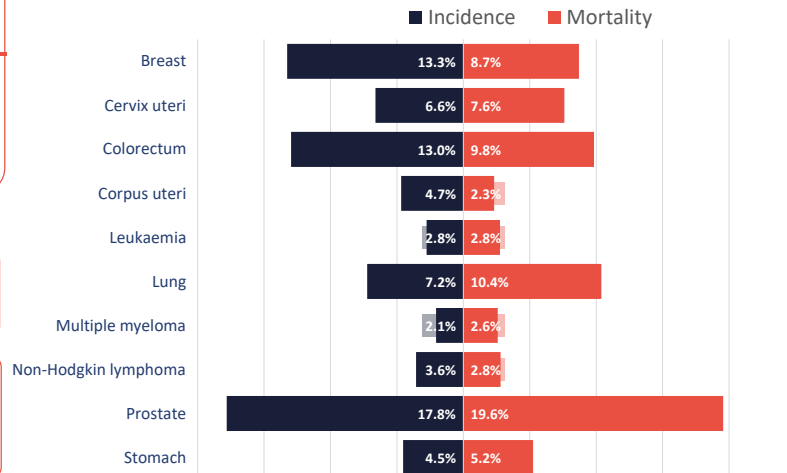
Premature deaths from NCDs (2016)

**4,418**

Cancer as % of NCD premature deaths (2016)

**36.3%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**18.7%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**2.3%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**13.7%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**3.4%**

Obesity (2012)<sup>b</sup>

**36.9%**

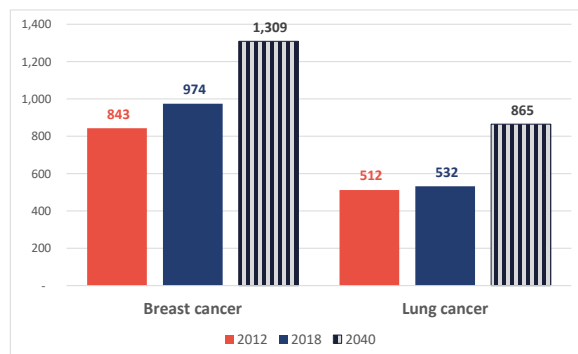
UV (2012)<sup>c</sup>

**1.8%**

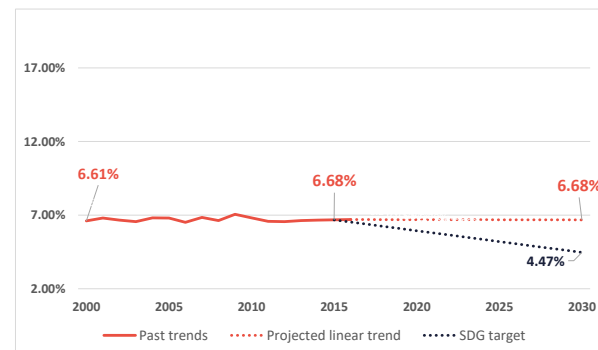
Occupational risk  
(2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

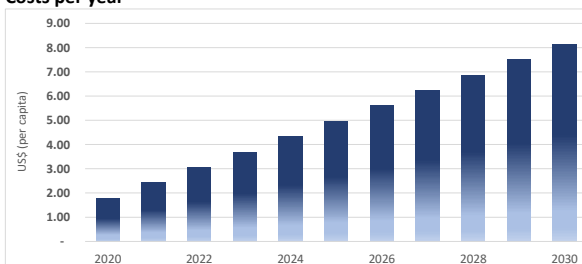


## INVESTMENT CASE (2019)

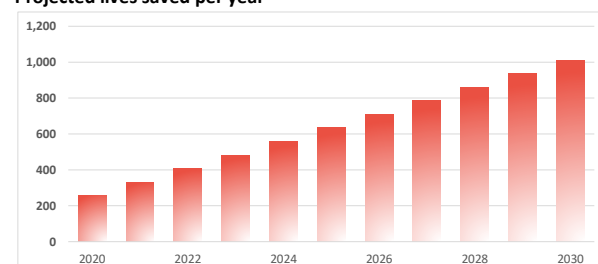
<sup>a</sup>Upper middle income

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR
Quality of mortality registration***	2007-2016	Low
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	6.8
# of mammographs <sup>a</sup>	2020	15.0
# of CT scanners <sup>a</sup>	2020	5.4
# of MRI scanners <sup>a</sup>	2020	5.4
# of PET or PET/CT scanners <sup>a</sup>	2020	0.0

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	5.4
# of medical physicist <sup>a</sup>	2019	n/a
# of surgeons <sup>a</sup>	2014	249.0
# of radiologist <sup>a</sup>	2019	81.7
# of nuclear medicine physician <sup>a</sup>	2019	6.8
# of medical & pathology lab scientists <sup>a</sup>	2016	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	not in effect	# Public cancer centres per 10,000 cancer patients	2019	2.7
NCCP (including cancer types)	2019	not in effect	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
MPOWER measures fully implemented and achieved	2018	3	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	127
Breast cancer screening program	2019	no	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	n/a			

### GLOBAL INITIATIVES

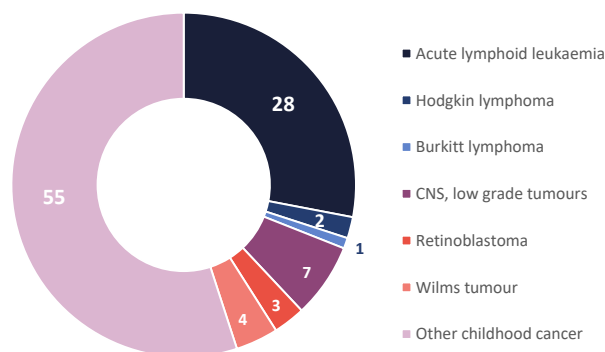
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	8.1
Cervical cancer screening	2019	no
Screening programme type	2019	n/a
Screening programme method	2019	n/a
Screening participation rates	2019	n/a
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	100
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Annual cancer cases (0-14 years old)



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

# JORDAN

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**10,101,697**

Total # cancer cases  
(2018)

**10,898**

Total # cancer deaths  
(2018)

**5,813**

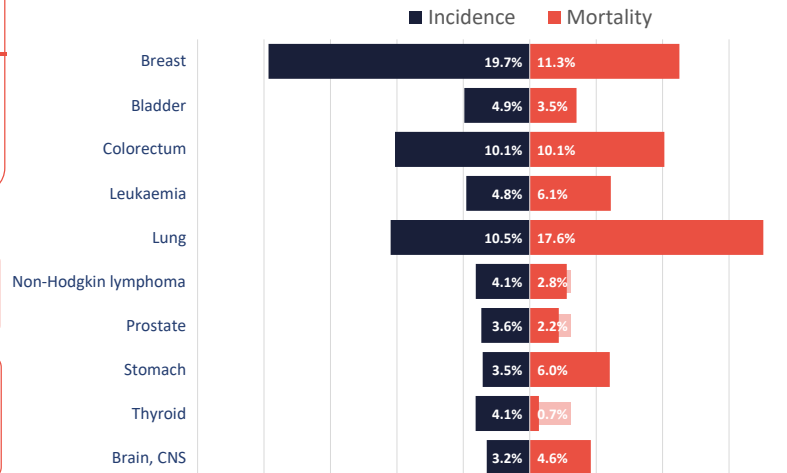
Premature deaths from NCDs (2016)

**11,264**

Cancer as % of NCD premature deaths (2016)

**21.7%**

## Most common cancer cases (2018)



## PAFs

(population attributable fractions)

**20.7%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**1.5%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**9.0%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**7.2%**

Obesity (2012)<sup>b</sup>

**0.0%**

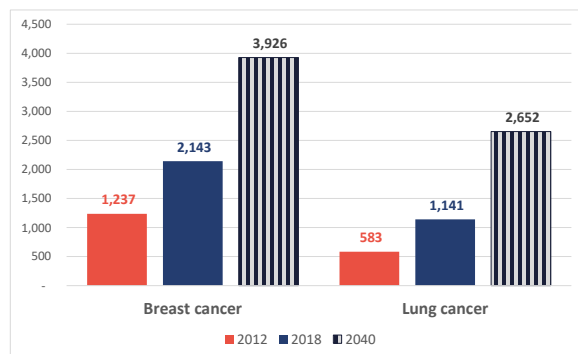
UV (2012)<sup>c</sup>

**2.1%**

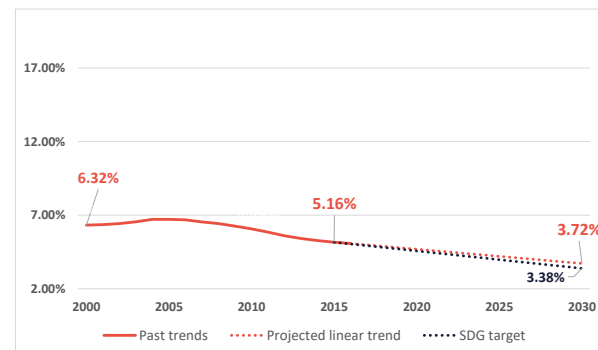
Occupational risk  
(2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

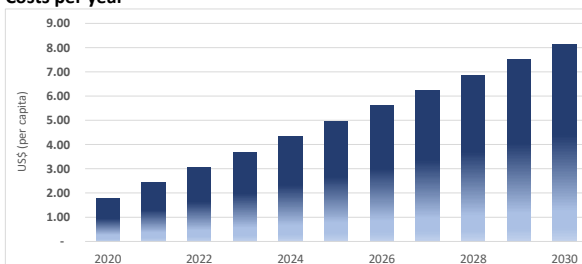


## INVESTMENT CASE (2019)

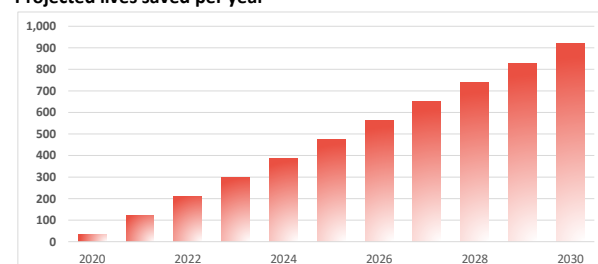
<sup>a</sup>Upper middle income

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR
Quality of mortality registration***	2007-2016	Low
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	12.8
# of mammographs <sup>a</sup>	2020	38.5
# of CT scanners <sup>a</sup>	2020	110.1
# of MRI scanners <sup>a</sup>	2020	58.7
# of PET or PET/CT scanners <sup>a</sup>	2020	6.4

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	n/a
# of surgeons <sup>a</sup>	n/a	n/a
# of radiologist <sup>a</sup>	2019	n/a
# of nuclear medicine physician <sup>a</sup>	2019	26.6
# of medical & pathology lab scientists <sup>a</sup>	2004	1835.2

### FORMULATING RESPONSE

Integrated NCD plan	2019	not in effect	# Public cancer centres per 10,000 cancer patients	2019	3.7
NCCP (including cancer types)	2019	under development	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	1 cancer(s)
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	231
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	40			

### GLOBAL INITIATIVES

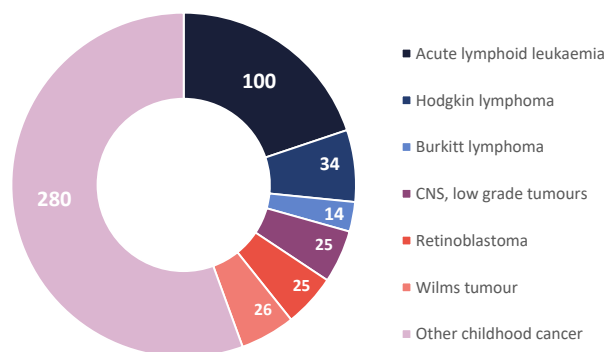
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	no
Screening programme type	2019	n/a
Screening programme method	2019	n/a
Screening participation rates	2019	n/a
Early detection programme/guidelines	2019	no
Defined referral system	2019	yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	504
Early detection programme/guidelines	2019	no
Defined referral system	2019	yes

#### Annual cancer cases (0-14 years old)



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



# JAPAN

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**126,860,299**

Total # cancer cases  
(2018)

**883,395**

Total # cancer deaths  
(2018)

**409,399**

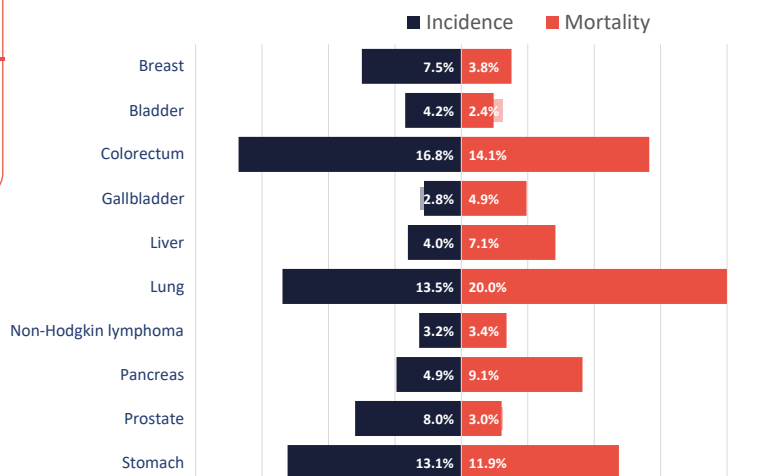
Premature deaths from NCDs (2016)

**179,185**

Cancer as % of NCD premature deaths (2016)

**55.2%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

**24.7%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**6.9%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**19.8%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**2.2%**

Obesity (2012)<sup>b</sup>

**0.7%**

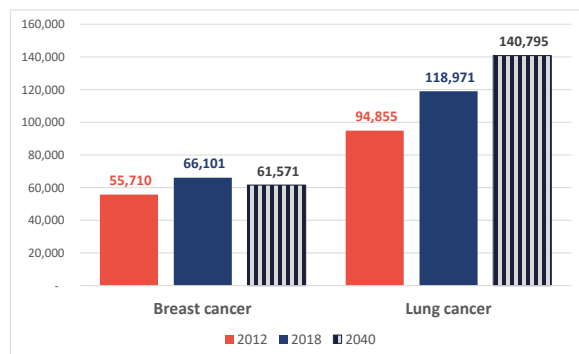
UV (2012)<sup>c</sup>

**5.0%**

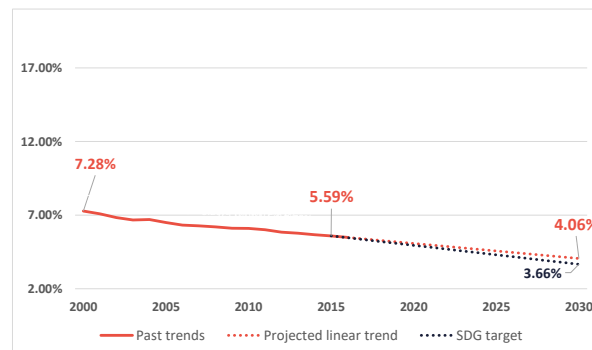
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

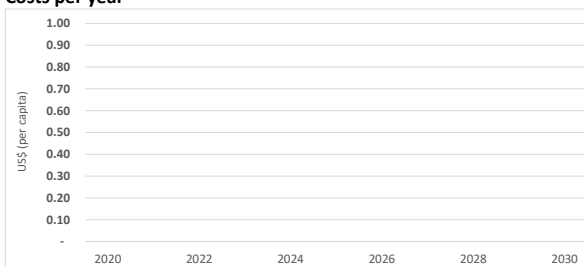


## INVESTMENT CASE (2019)

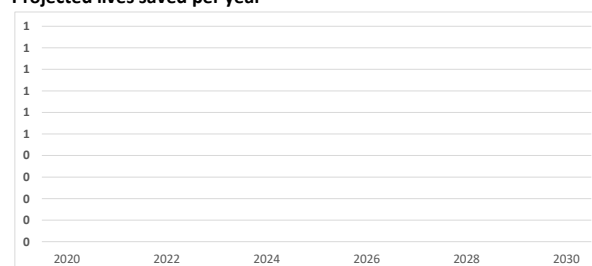
*\*High income*

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

Costs per year



Projected lives saved per year



# JAPAN

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR
Quality of mortality registration***	2007-2016	High
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	10.5
# of mammographs <sup>a</sup>	2020	47.4
# of CT scanners <sup>a</sup>	2020	153.6
# of MRI scanners <sup>a</sup>	2020	74.6
# of PET or PET/CT scanners <sup>a</sup>	2020	4.2

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	10.8
# of surgeons <sup>a</sup>	2013	240.8
# of radiologist <sup>a</sup>	2019	97.5
# of nuclear medicine physician <sup>a</sup>	2019	30.6
# of medical & pathology lab scientists <sup>a</sup>	n/a	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	n/a
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally available
Cancer management guidelines	2019	don't know	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	1227
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	40			

### GLOBAL INITIATIVES

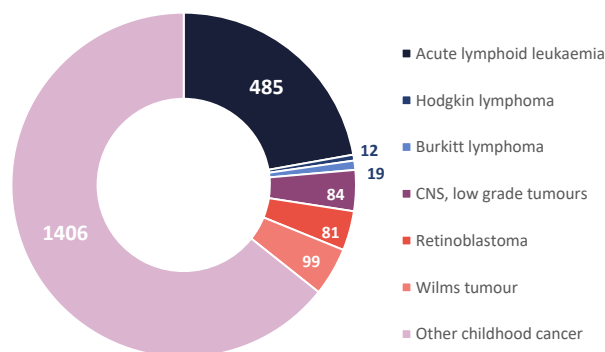
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	0.3
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	10%-50%
Early detection programme/guidelines	2019	don't know
Defined referral system	2019	don't know

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	2186
Early detection programme/guidelines	2019	don't know
Defined referral system	2019	don't know

#### Annual cancer cases (0-14 years old)



# KAZAKHSTAN

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**18,551,428**

Total # cancer cases  
(2018)

**33,949**

Total # cancer deaths  
(2018)

**21,828**

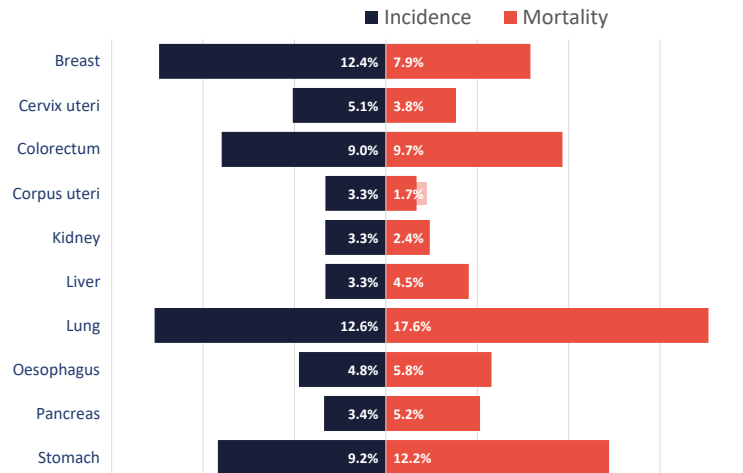
Premature deaths from NCDs (2016)

**54,566**

Cancer as % of NCD premature deaths (2016)

**26.1%**

## Most common cancer cases (2018)



## PAFs

(population attributable fractions)

**25.4%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**10.3%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**17.2%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**4.5%**

Obesity (2012)<sup>b</sup>

**53.8%**

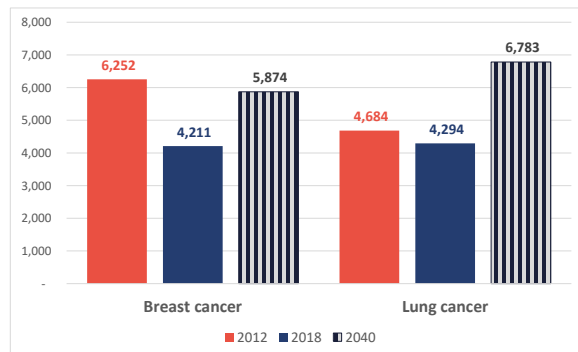
UV (2012)<sup>c</sup>

**2.6%**

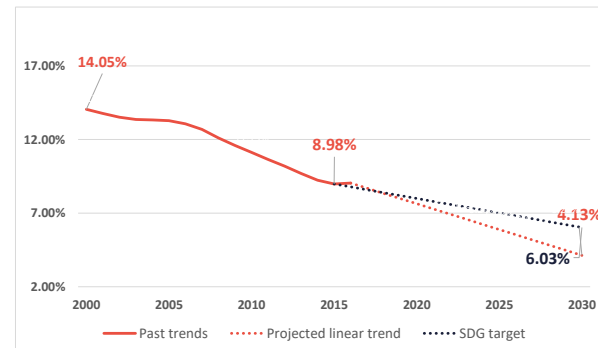
Occupational risk  
(2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

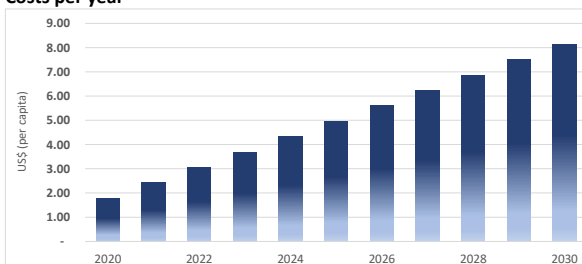


## INVESTMENT CASE (2019)

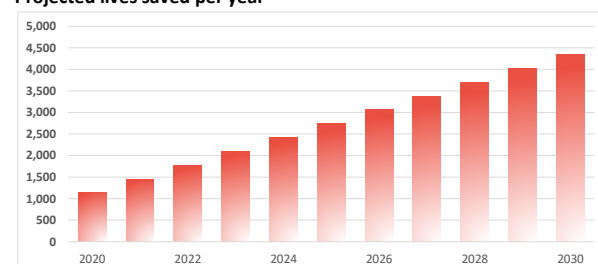
<sup>a</sup>Upper middle income

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

Costs per year



Projected lives saved per year



# KAZAKHSTAN

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR
Quality of mortality registration***	2007-2016	Medium
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	13.3
# of mammographs <sup>a</sup>	2020	56.6
# of CT scanners <sup>a</sup>	2020	34.5
# of MRI scanners <sup>a</sup>	2020	17.7
# of PET or PET/CT scanners <sup>a</sup>	2020	0.3

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	1.5
# of surgeons <sup>a</sup>	n/a	n/a
# of radiologist <sup>a</sup>	2019	191.5
# of nuclear medicine physician <sup>a</sup>	2019	n/a
# of medical & pathology lab scientists <sup>a</sup>	n/a	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	6.2
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	37
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	40			

### GLOBAL INITIATIVES

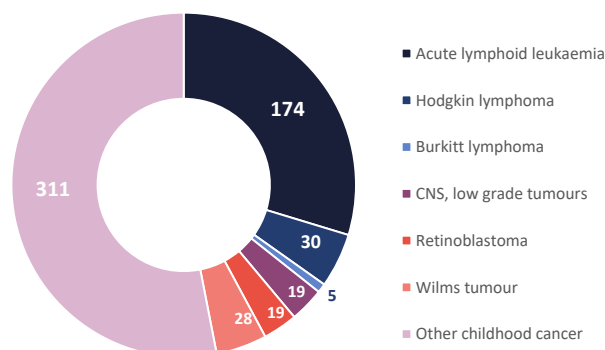
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	70% or more
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	586
Early detection programme/guidelines	2019	no
Defined referral system	2019	yes

#### Annual cancer cases (0-14 years old)



## BURDEN OF CANCER

Total population (2019)

**52,573,967**

Total # cancer cases  
(2018)

**47,887**

Total # cancer deaths  
(2018)

**32,987**

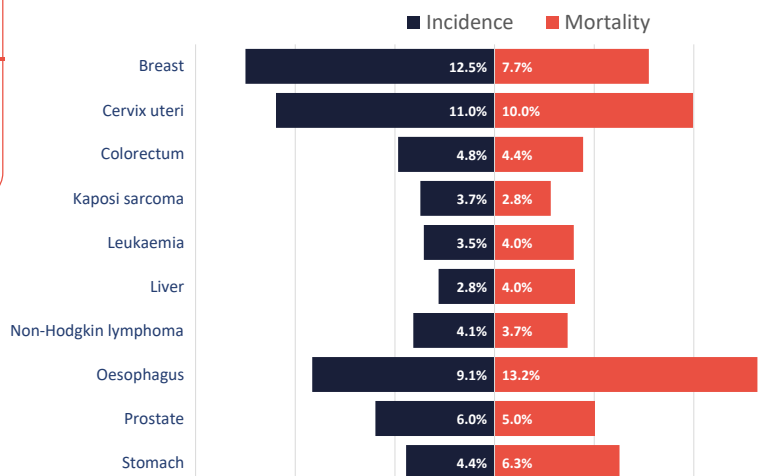
Premature deaths from NCDs (2016)

**31,607**

Cancer as % of NCD premature deaths (2016)

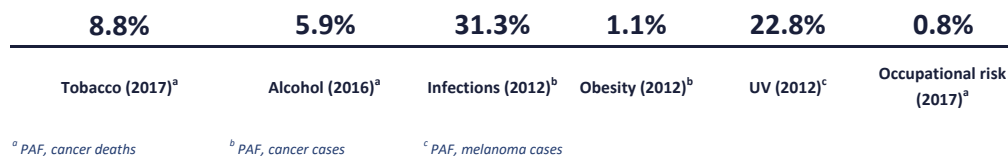
**51.3%**

### Most common cancer cases (2018)



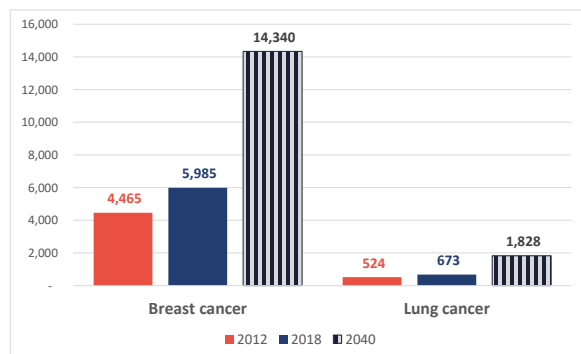
### PAFs

(population attributable fractions)

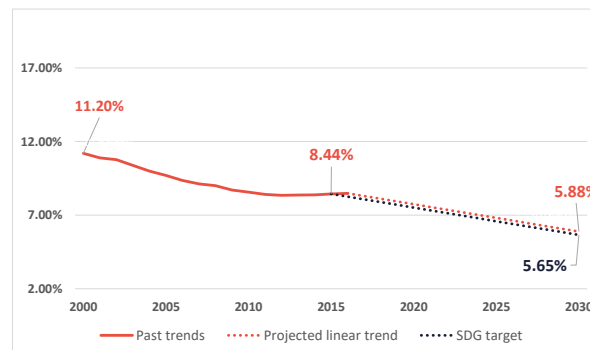


## TRENDS

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



### Probability of premature death from cancer per year

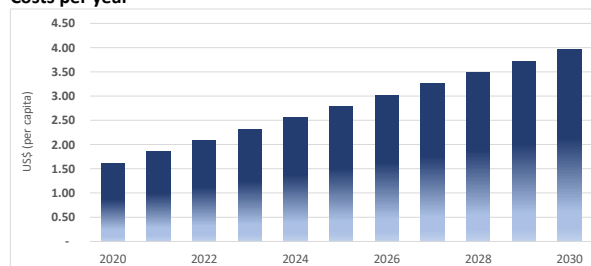


## INVESTMENT CASE (2019)

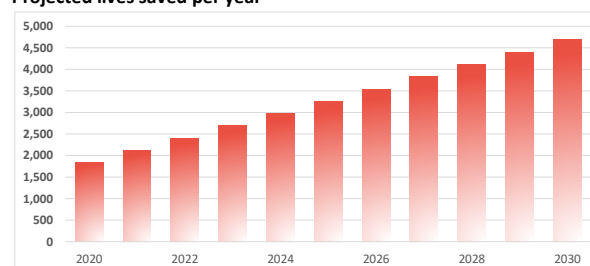
*\*Lower middle income*

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 High quality PBCR

Quality of mortality registration\*\*\* 2007-2016 No coverage

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 2.3# of mammographs<sup>a</sup> 2020 15.0# of CT scanners<sup>a</sup> 2020 34.5# of MRI scanners<sup>a</sup> 2020 10.4# of PET or PET/CT scanners<sup>a</sup> 2020 0.2

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 yes

# of radiation oncologist<sup>a</sup> 2019 n/a# of medical physicist<sup>a</sup> 2019 0.8# of surgeons<sup>a</sup> 2014 66.0# of radiologist<sup>a</sup> 2019 62.6# of nuclear medicine physician<sup>a</sup> 2019 0.6# of medical & pathology lab scientists<sup>a</sup> 2004 1252.9

## FORMULATING RESPONSE

Integrated NCD plan 2019 operational

NCCP (including cancer types) 2019 operational

MPOWER measures fully implemented and achieved 2018 1

Cancer management guidelines 2019 yes

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

# of treatment services (surgery, radiotherapy, chemotherapy) 2019 2

Breast cancer screening program 2019 yes

Breast cancer screening program: Starting age, target population 2019 35

# Public cancer centres per 10,000 cancer patients 2019 0.4

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

Pathology services 2019 generally available

Bone marrow transplantation capacity 2019 generally not available

Palliative care availability: community/home-based care 2019 generally not available

Availability of opioids\* for pain management 2015-2017 52

\*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day

## GLOBAL INITIATIVES

## Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 n/a

Cervical cancer screening 2019 yes

Screening programme type 2019 opportunistic

Screening programme method 2019 HPV test

Screening participation rates 2019 10%-50%

Early detection programme/guidelines 2019 yes

Defined referral system 2019 yes

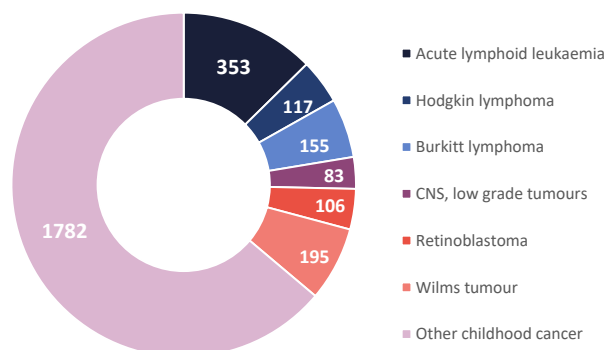
## Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 2791

Early detection programme/guidelines 2019 yes

Defined referral system 2019 yes

## Annual cancer cases (0-14 years old)



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

# KYRGYZSTAN

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**6,415,851**

Total # cancer cases  
(2018)

**6,546**

Total # cancer deaths  
(2018)

**4,497**

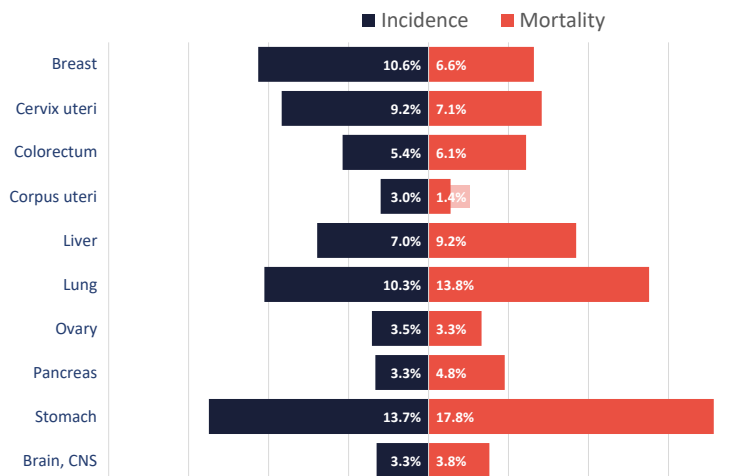
Premature deaths from NCDs (2016)

**13,333**

Cancer as % of NCD premature deaths (2016)

**19.2%**

## Most common cancer cases (2018)



## PAFs

(population attributable fractions)

**17.4%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**9.1%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**27.0%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**3.5%**

Obesity (2012)<sup>b</sup>

**20.0%**

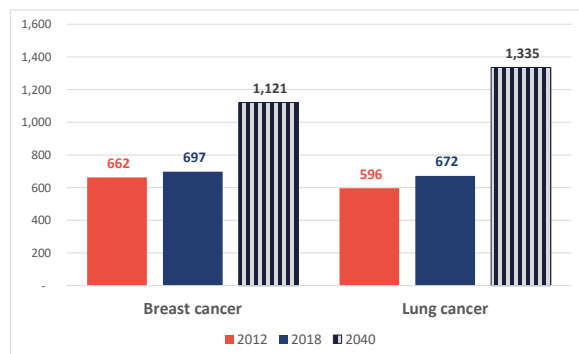
UV (2012)<sup>c</sup>

**1.4%**

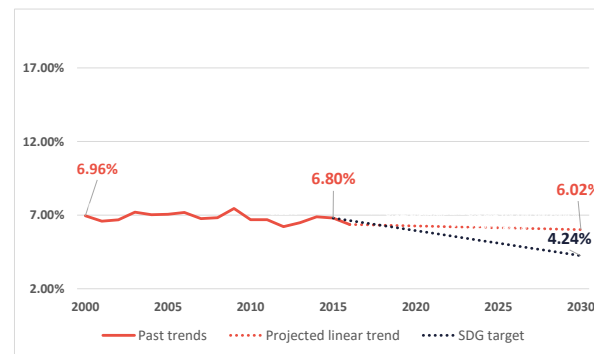
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

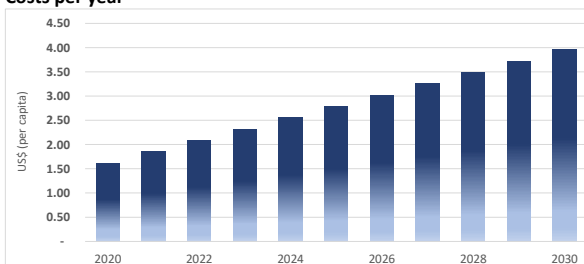


## INVESTMENT CASE (2019)

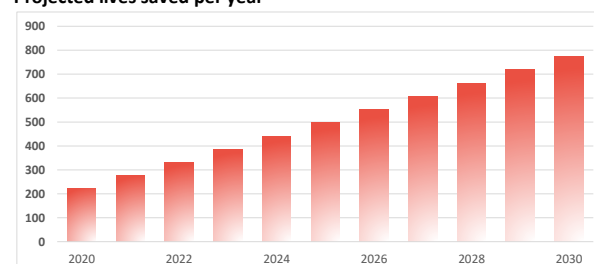
*\*Lower middle income*

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

Costs per year



Projected lives saved per year



# KYRGYZSTAN

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	PBCR
Quality of mortality registration***	2007-2016	High
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	3.1
# of mammographs <sup>a</sup>	2020	9.2
# of CT scanners <sup>a</sup>	2020	15.3
# of MRI scanners <sup>a</sup>	2020	9.2
# of PET or PET/CT scanners <sup>a</sup>	2020	0.0

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	1.5
# of surgeons <sup>a</sup>	2013	2853.7
# of radiologist <sup>a</sup>	2019	1069.4
# of nuclear medicine physician <sup>a</sup>	2019	4.6
# of medical & pathology lab scientists <sup>a</sup>	n/a	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	3.1
NCCP (including cancer types)	2019	under development	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	23
Breast cancer screening program	2019	yes			
Breast cancer screening program: Starting age, target population	2019	n/a			

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

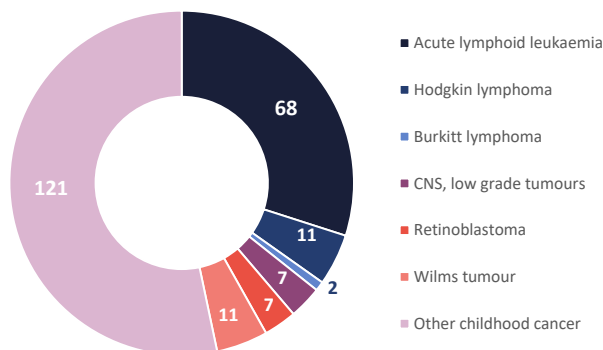
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	no
Screening programme type	2019	n/a
Screening programme method	2019	n/a
Screening participation rates	2019	n/a
Early detection programme/guidelines	2019	yes
Defined referral system	2019	no

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	227
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

#### Annual cancer cases (0-14 years old)





# CAMBODIA

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**16,486,542**

Total # cancer cases  
(2018)

**15,362**

Total # cancer deaths  
(2018)

**11,636**

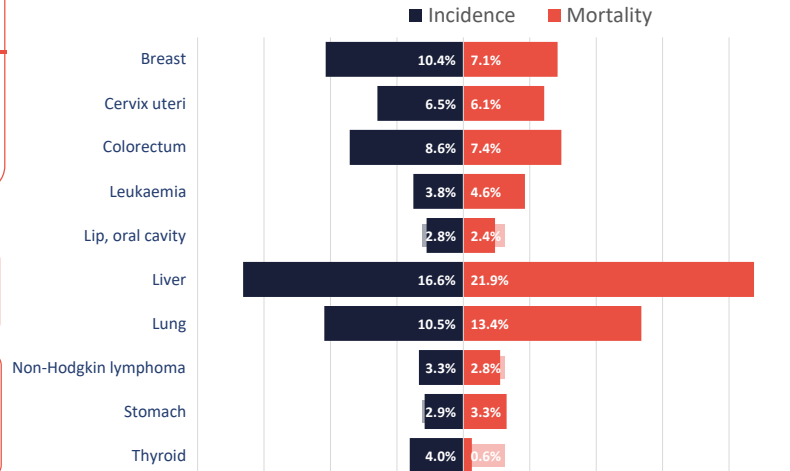
Premature deaths from NCDs (2016)

**29,968**

Cancer as % of NCD premature deaths (2016)

**28.9%**

## Most common cancer cases (2018)



## PAFs

(population attributable fractions)

**25.2%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**5.4%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**26.7%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**0.5%**

Obesity (2012)<sup>b</sup>

**5.0%**

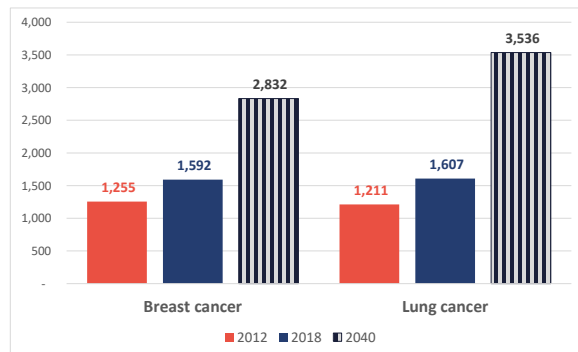
UV (2012)<sup>c</sup>

**2.7%**

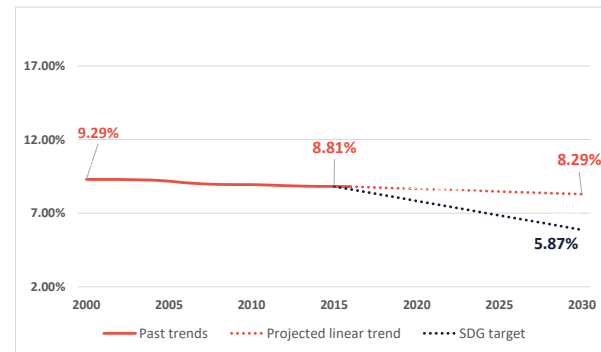
Occupational risk  
(2017)<sup>a</sup>

## TRENDS

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



### Probability of premature death from cancer per year

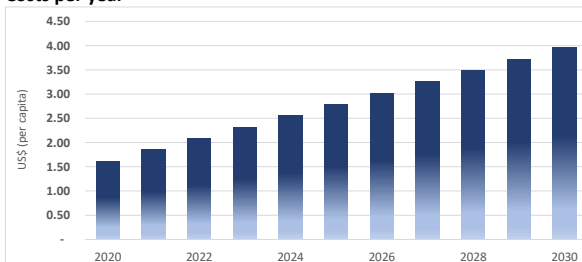


## INVESTMENT CASE (2019)

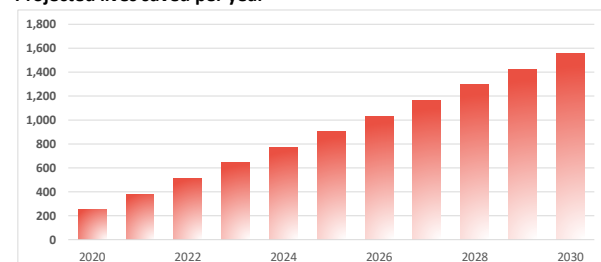
*\*Lower middle income*

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

### Costs per year



### Projected lives saved per year



# CAMBODIA

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\*

2019 Registration activity

Quality of mortality registration\*\*\* 2007-2016 No coverage

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 1.3

# of mammographs<sup>a</sup> 2020 2.6

# of CT scanners<sup>a</sup> 2020 12.4

# of MRI scanners<sup>a</sup> 2020 1.3

# of PET or PET/CT scanners<sup>a</sup> 2020 0.0

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer

2019 yes

# of radiation oncologist<sup>a</sup> 2019 n/a

# of medical physicist<sup>a</sup> 2019 1.3

# of surgeons<sup>a</sup> n/a n/a

# of radiologist<sup>a</sup> 2019 n/a

# of nuclear medicine physician<sup>a</sup> 2019 1.3

# of medical & pathology lab scientists<sup>a</sup> 2014 360.6

### FORMULATING RESPONSE

Integrated NCD plan 2019 operational

NCCP (including cancer types) 2019 operational

MPOWER measures fully implemented and achieved 2018 2

Cancer management guidelines 2019 yes

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

# of treatment services (surgery, radiotherapy, chemotherapy) 2019 0

Breast cancer screening program 2019 no

Breast cancer screening program: Starting age, target population 2019 n/a

# Public cancer centres per 10,000 cancer patients 2019 1.3

Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood) 2019 1 cancer(s)

Pathology services 2019 generally not available

Bone marrow transplantation capacity 2019 generally not available

Palliative care availability: community/home-based care 2019 generally not available

Availability of opioids\* for pain management 2015-2017 0

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

### GLOBAL INITIATIVES

#### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 n/a

Cervical cancer screening 2019 yes

Screening programme type 2019 organised

Screening programme method 2019 visual inspection

Screening participation rates 2019 10%-50%

Early detection programme/guidelines 2019 yes

Defined referral system 2019 yes

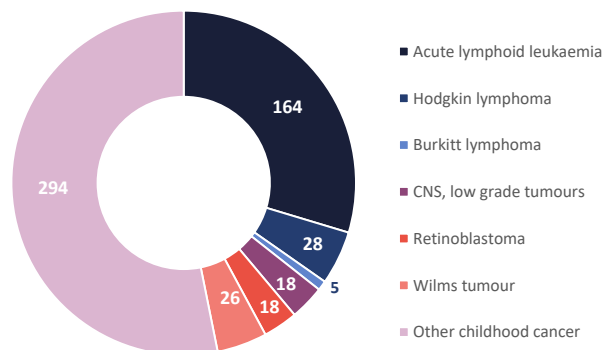
#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 553

Early detection programme/guidelines 2019 no

Defined referral system 2019 no

#### Annual cancer cases (0-14 years old)



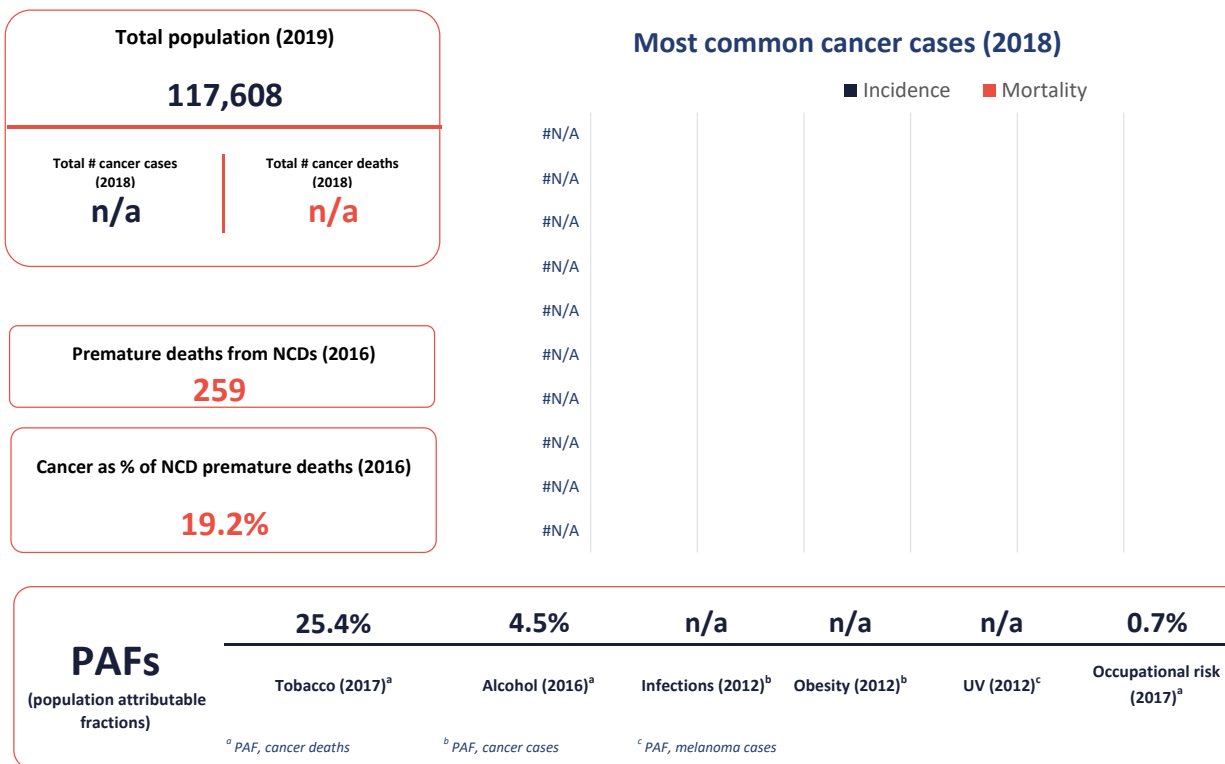
\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

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

# KIRIBATI

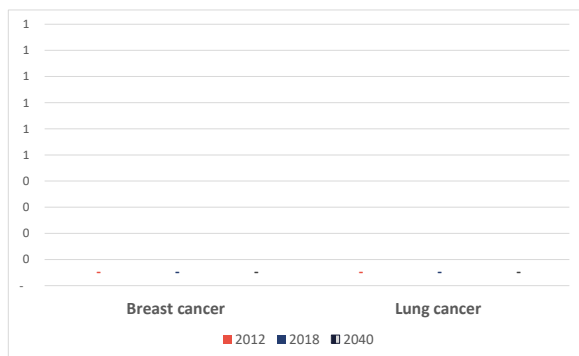
Cancer Country Profile 2020

## BURDEN OF CANCER

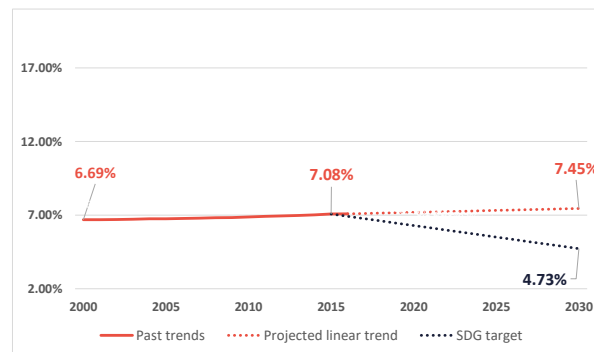


## TRENDS

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



Probability of premature death from cancer per year

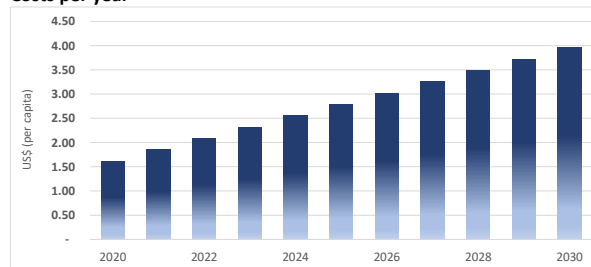


## INVESTMENT CASE (2019)

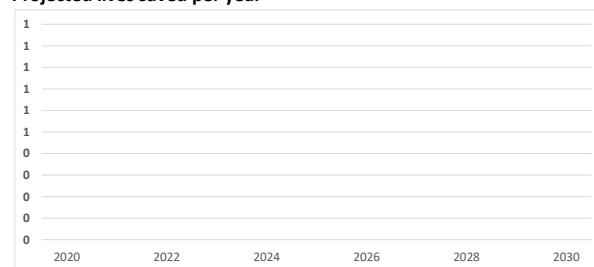
*\*Lower middle income*

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

### Costs per year



### Projected lives saved per year



# KIRIBATI

## Cancer Country Profile 2020

### HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	No information
Quality of mortality registration***	2007-2016	Low
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	n/a
# of mammographs <sup>a</sup>	2020	n/a
# of CT scanners <sup>a</sup>	2020	n/a
# of MRI scanners <sup>a</sup>	2020	n/a
# of PET or PET/CT scanners <sup>a</sup>	2020	n/a

### WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist <sup>a</sup>	2019	n/a
# of medical physicist <sup>a</sup>	2019	n/a
# of surgeons <sup>a</sup>	2014	n/a
# of radiologist <sup>a</sup>	2019	n/a
# of nuclear medicine physician <sup>a</sup>	2019	n/a
# of medical & pathology lab scientists <sup>a</sup>	2013	n/a

### FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	n/a
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s)
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally available
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	1	Availability of opioids* for pain management	2015-2017	41
Breast cancer screening program	2019	yes	<i>*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day</i>		
Breast cancer screening program: Starting age, target population	2019	n/a			

### GLOBAL INITIATIVES

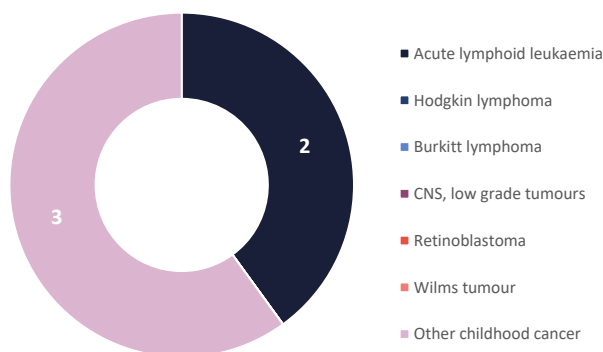
#### Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
Screening programme method	2019	PAP smear
Screening participation rates	2019	10%-50%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

#### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	5
Early detection programme/guidelines	2019	no
Defined referral system	2019	don't know

#### Annual cancer cases (0-14 years old)

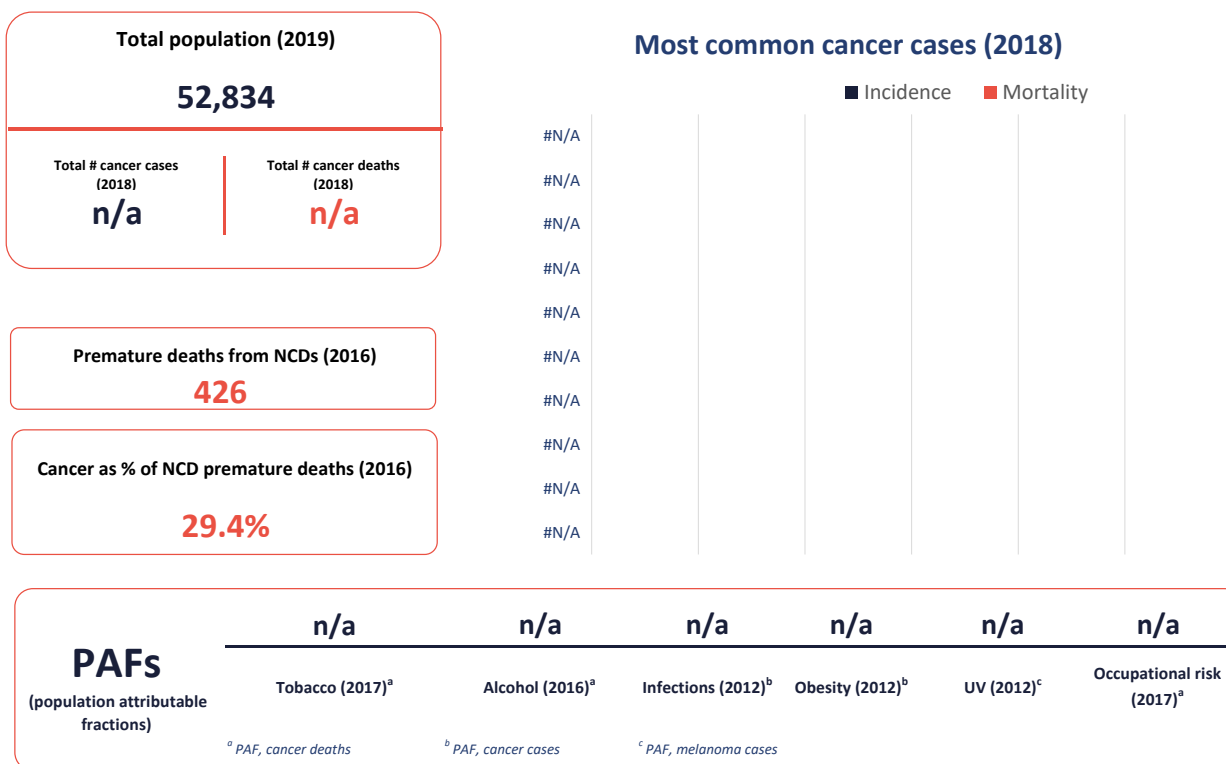


\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry  
 \*\*\*The mortality estimates for this country have a high degree of uncertainty because they are not based on any national NCD mortality data

# SAINT KITTS AND NEVIS

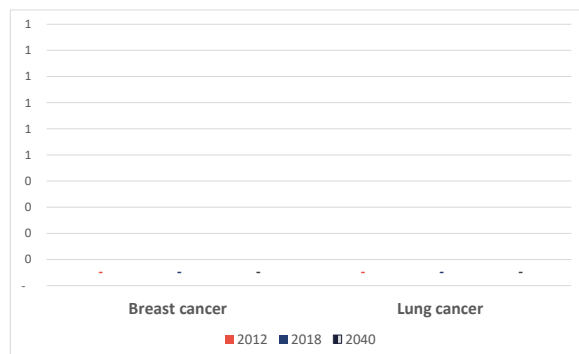
Cancer Country Profile 2020

## BURDEN OF CANCER

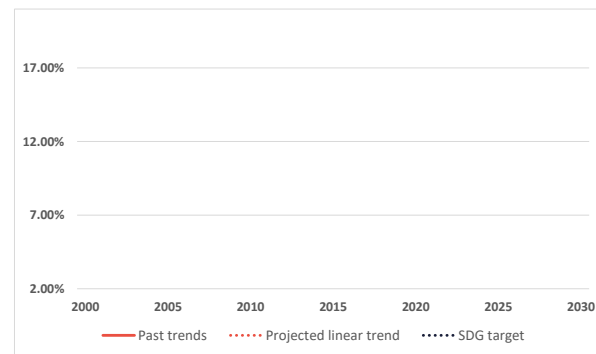


## TRENDS

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



Probability of premature death from cancer per year

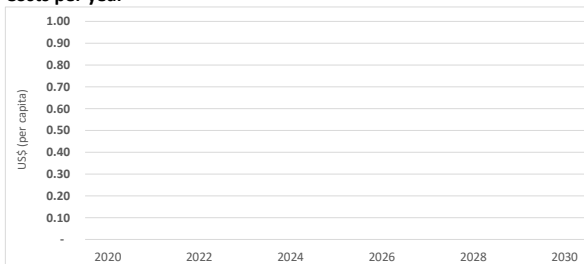


## INVESTMENT CASE (2019)

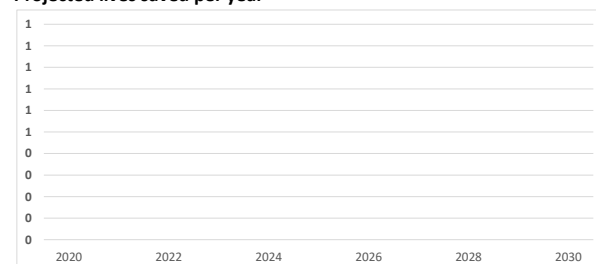
*\*High income*

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

### Costs per year



### Projected lives saved per year



# SAINT KITTS AND NEVIS

Cancer Country Profile 2020

## HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	No information	<b>WORKFORCE</b>		
			<sup>a</sup> per 10,000 cancer patients		
Quality of mortality registration***	2007-2016	Medium	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	no
# of external beam radiotherapy (photon,electron) <sup>a</sup>	2019	n/a	# of radiation oncologist <sup>a</sup>	2019	n/a
# of mammographs <sup>a</sup>	2020	n/a	# of medical physicist <sup>a</sup>	2019	n/a
# of CT scanners <sup>a</sup>	2020	n/a	# of surgeons <sup>a</sup>	2014	n/a
# of MRI scanners <sup>a</sup>	2020	n/a	# of radiologist <sup>a</sup>	2019	n/a
# of PET or PET/CT scanners <sup>a</sup>	2020	n/a	# of nuclear medicine physician <sup>a</sup>	2019	n/a
			# of medical & pathology lab scientists <sup>a</sup>	n/a	n/a

## FORMULATING RESPONSE

Integrated NCD plan	2019	under development	# Public cancer centres per 10,000 cancer patients	2019	n/a
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	1	Availability of opioids* for pain management	2015-2017	0
Breast cancer screening program	2019	no			
Breast cancer screening program: Starting age, target population	2019	n/a			

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

## GLOBAL INITIATIVES

<b>Elimination of Cervical Cancer</b>			<b>Global Initiative for Childhood Cancer</b>		
HPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	n/a
Cervical cancer screening	2019	no	Early detection programme/guidelines	2019	no
Screening programme type	2019	n/a	Defined referral system	2019	no
Screening programme method	2019	n/a			
Screening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	no			
Defined referral system	2019	no			

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

\*\*The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

# KOREA, REPUBLIC OF

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**51,225,321**

Total # cancer cases  
(2018)

**277,075**

Total # cancer deaths  
(2018)

**86,281**

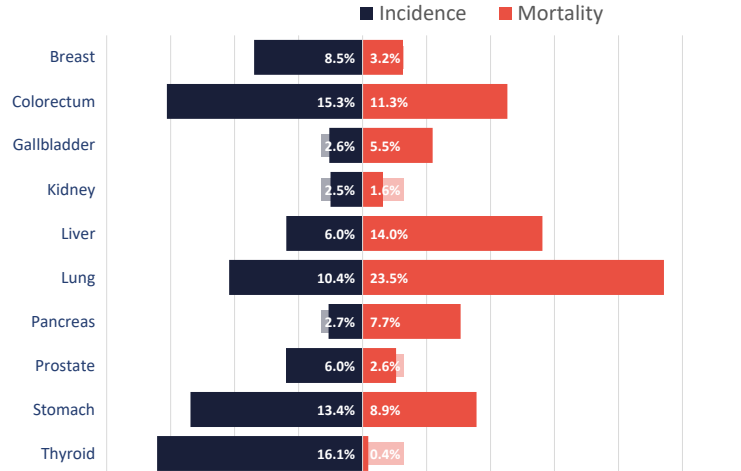
Premature deaths from NCDs (2016)

**63,430**

Cancer as % of NCD premature deaths (2016)

**53.0%**

### Most common cancer cases (2018)



### PAFs

(population attributable fractions)

n/a

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

8.3%

Alcohol (2016)<sup>a</sup>

<sup>a</sup> PAF, cancer cases

20.8%

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

n/a

Obesity (2012)<sup>b</sup>

n/a

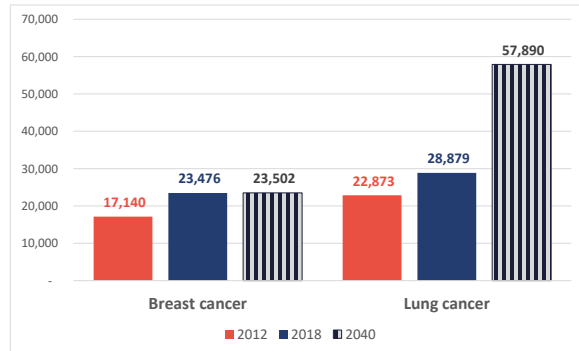
UV (2012)<sup>c</sup>

2.4%

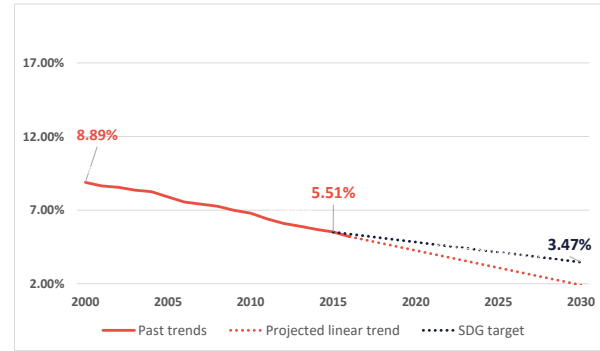
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

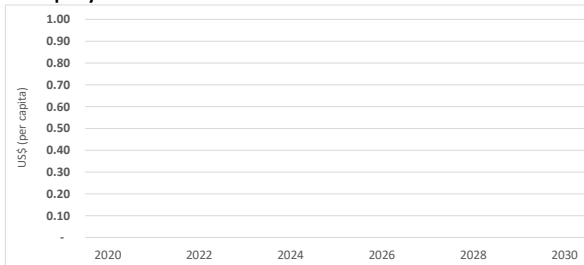


## INVESTMENT CASE (2019)

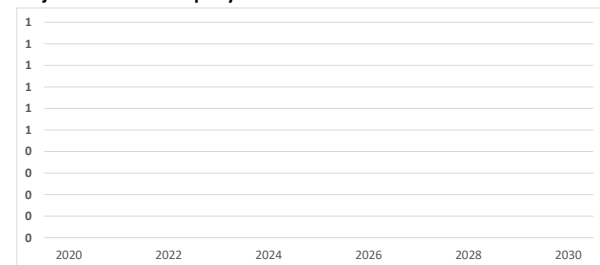
\*High income

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

Costs per year



Projected lives saved per year



# KOREA, REPUBLIC OF

Cancer Country Profile 2020

## HEALTH SYSTEM CAPACITY

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 High quality PBCR

Quality of mortality registration\*\*\* 2007-2016 High

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 5.8

# of mammographs<sup>a</sup> 2020 110.5

# of CT scanners<sup>a</sup> 2020 70.9

# of MRI scanners<sup>a</sup> 2020 54.0

# of PET or PET/CT scanners<sup>a</sup> 2020 6.0

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 yes

# of radiation oncologist<sup>a</sup> 2019 5.3

# of medical physicist<sup>a</sup> 2019 5.6

# of surgeons<sup>a</sup> 2014 570.0

# of radiologist<sup>a</sup> 2019 117.3

# of nuclear medicine physician<sup>a</sup> 2019 7.1

# of medical & pathology lab scientists<sup>a</sup> 2004 n/a

## FORMULATING RESPONSE

Integrated NCD plan 2019 operational

NCCP (including cancer types) 2019 operational

MPOWER measures fully implemented and achieved 2018 1

Cancer management guidelines 2019 yes

Palliative care included in their operational, integrated NCD plan 2019 no

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

Breast cancer screening program 2019 yes

Breast cancer screening program: Starting age, target population 2019 40

# Public cancer centres per 10,000 cancer patients 2019 0.7

Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood) 2019 0 cancer(s)

Pathology services 2019 generally available

Bone marrow transplantation capacity 2019 generally available

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

Availability of opioids\* for pain management 2015-2017 2669

\*Defined daily doses for statistical purposes (5-DDD) per million inhabitants per day

## GLOBAL INITIATIVES

### Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 62.5

Cervical cancer screening 2019 yes

Screening programme type 2019 organised

Screening programme method 2019 PAP smear

Screening participation rates 2019 10%-50%

Early detection programme/guidelines 2019 no

Defined referral system 2019 no

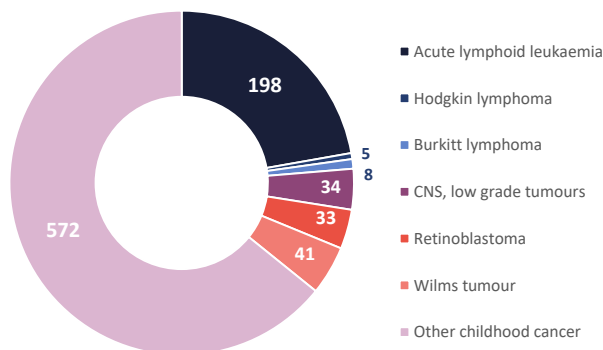
### Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 891

Early detection programme/guidelines 2019 no

Defined referral system 2019 no

### Annual cancer cases (0-14 years old)





# KUWAIT

Cancer Country Profile 2020

## BURDEN OF CANCER

Total population (2019)

**4,207,077**

Total # cancer cases  
(2018)

**3,582**

Total # cancer deaths  
(2018)

**1,658**

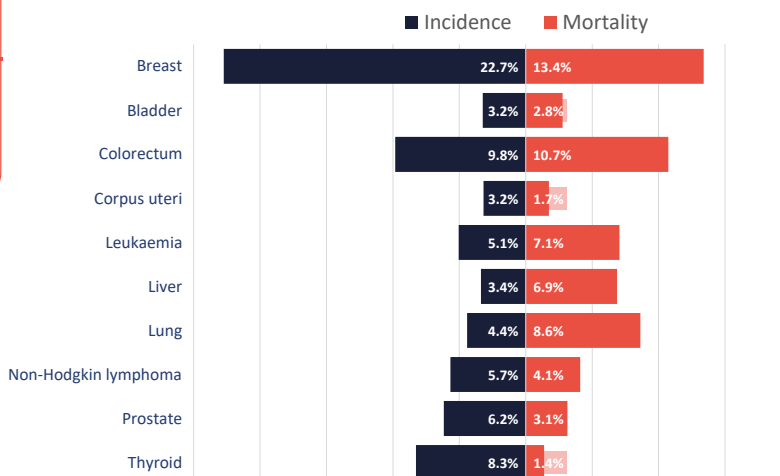
Premature deaths from NCDs (2016)

**4,700**

Cancer as % of NCD premature deaths (2016)

**22.7%**

## Most common cancer cases (2018)



## PAFs

(population attributable fractions)

**16.4%**

Tobacco (2017)<sup>a</sup>

<sup>a</sup> PAF, cancer deaths

**1.0%**

Alcohol (2016)<sup>a</sup>

<sup>b</sup> PAF, cancer cases

**9.6%**

Infections (2012)<sup>b</sup>

<sup>c</sup> PAF, melanoma cases

**7.2%**

Obesity (2012)<sup>b</sup>

**n/a**

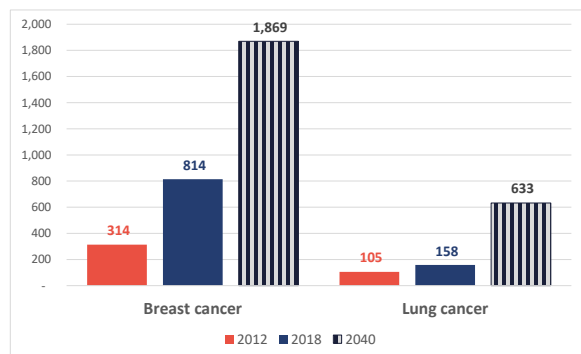
UV (2012)<sup>c</sup>

**2.2%**

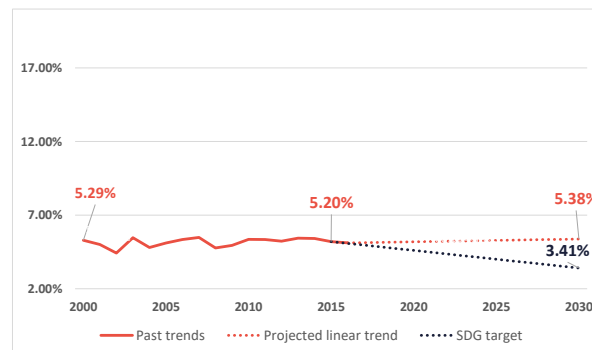
Occupational risk (2017)<sup>a</sup>

## TRENDS

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



Probability of premature death from cancer per year

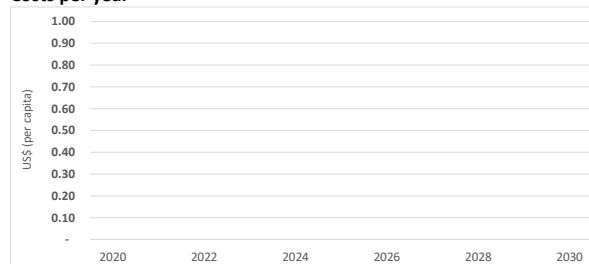


## INVESTMENT CASE (2019)

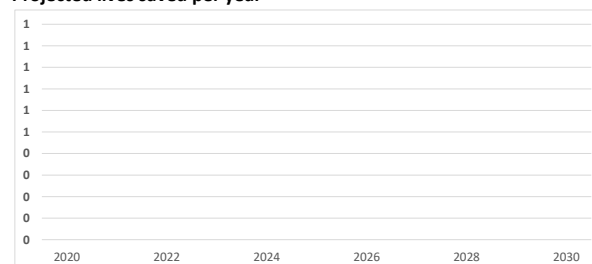
<sup>a</sup>High income

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

<sup>a</sup> per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)\*\* 2019 High quality PBCR

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

# of external beam radiotherapy (photon,electron)<sup>a</sup> 2019 11.2# of mammographs<sup>a</sup> 2020 n/a# of CT scanners<sup>a</sup> 2020 273.6# of MRI scanners<sup>a</sup> 2020 234.5# of PET or PET/CT scanners<sup>a</sup> 2020 30.7

## WORKFORCE

<sup>a</sup> per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer 2019 yes

# of radiation oncologist<sup>a</sup> 2019 n/a# of medical physicist<sup>a</sup> 2019 223.3# of surgeons<sup>a</sup> n/a n/a# of radiologist<sup>a</sup> 2019 558.3# of nuclear medicine physician<sup>a</sup> 2019 139.6# of medical & pathology lab scientists<sup>a</sup> n/a n/a

## FORMULATING RESPONSE

Integrated NCD plan 2019 operational

NCCP (including cancer types) 2019 operational

MPOWER measures fully implemented and achieved 2018 2

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 40

# Public cancer centres per 10,000 cancer patients 2019 11.2

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 not available

Availability of opioids\* for pain management 2015-2017 328

\*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

## GLOBAL INITIATIVES

## Elimination of Cervical Cancer

HPV vaccination programme coverage 2018 n/a

Cervical cancer screening 2019 no

Screening programme type 2019 n/a

Screening programme method 2019 n/a

Screening participation rates 2019 n/a

Early detection programme/guidelines 2019 yes

Defined referral system 2019 yes

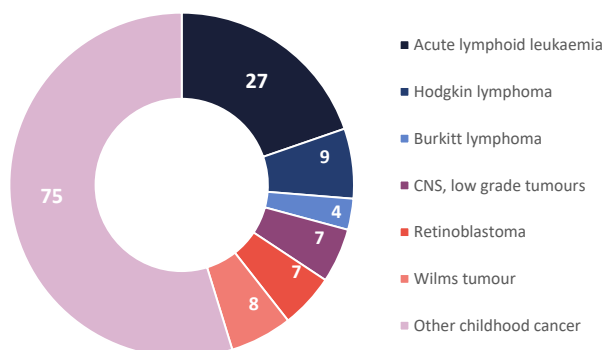
## Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old) 2020 137

Early detection programme/guidelines 2019 no

Defined referral system 2019 yes

## Annual cancer cases (0-14 years old)



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