LAO PEOPLE'S DEMOCRATIC REPUBLIC

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

7,169,456

Total # cancer cases (2018)	Total # cancer deaths (2018)
7,710	5,550

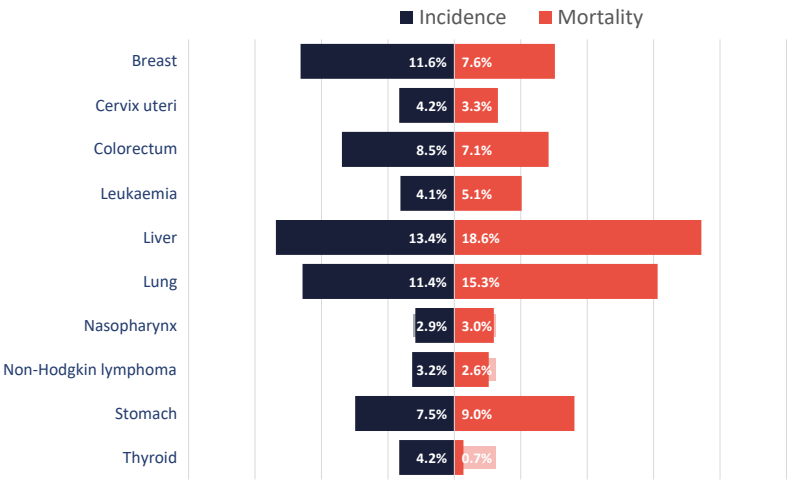
Premature deaths from NCDs (2016)

13,139

Cancer as % of NCD premature deaths (2016)

27.3%

Most common cancer cases (2018)



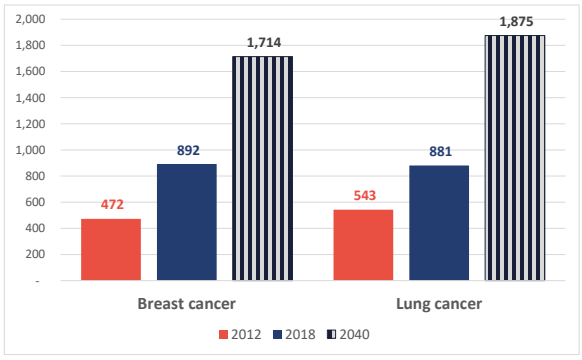
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
n/a	8.2%	35.3%	0.7%	0.7%	2.0%

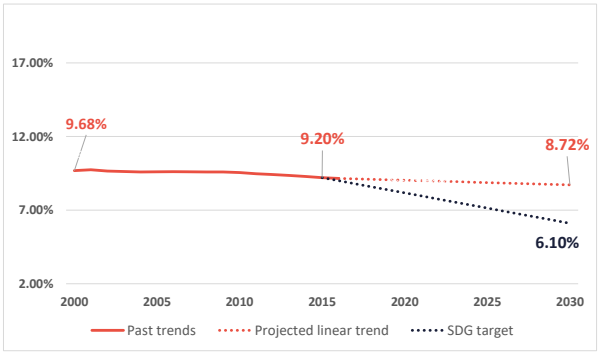
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

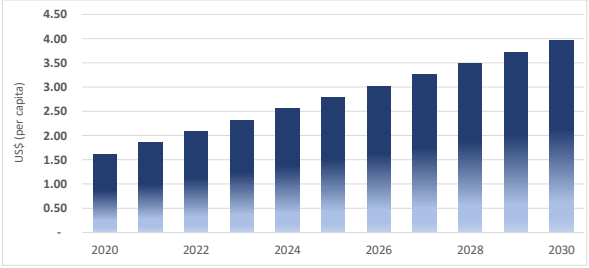


INVESTMENT CASE (2019)

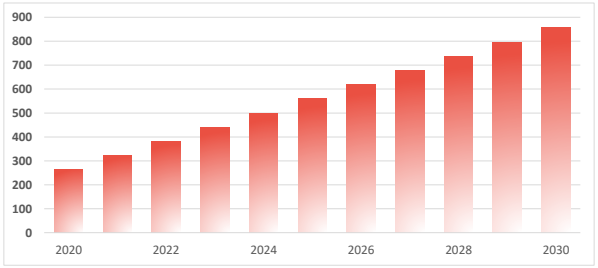
**Lower middle income*

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

Costs per year



Projected lives saved per year



LAO PEOPLE'S DEMOCRATIC REPUBLIC

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	1.3
# of mammographs[a]	2020	3.9
# of CT scanners[a]	2020	6.5
# of MRI scanners[a]	2020	0.0
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	84.3
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	0.0
# of medical & pathology lab scientists[a]	2014	824.9

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	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	35

# 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	don't know
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

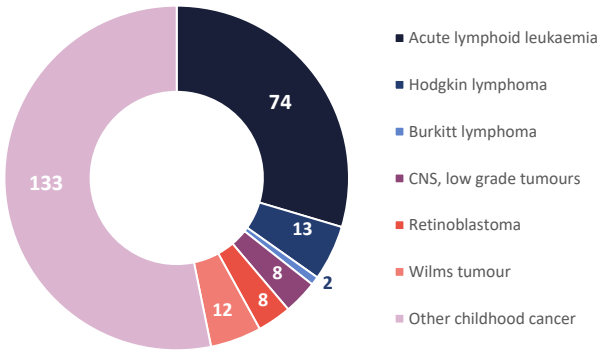
Elimination of Cervical Cancer

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

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	250
Early detection programme/guidelines	2019	don't know
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

LEBANON

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

6,855,709

Total # cancer cases (2018)	Total # cancer deaths (2018)
17,294	8,976

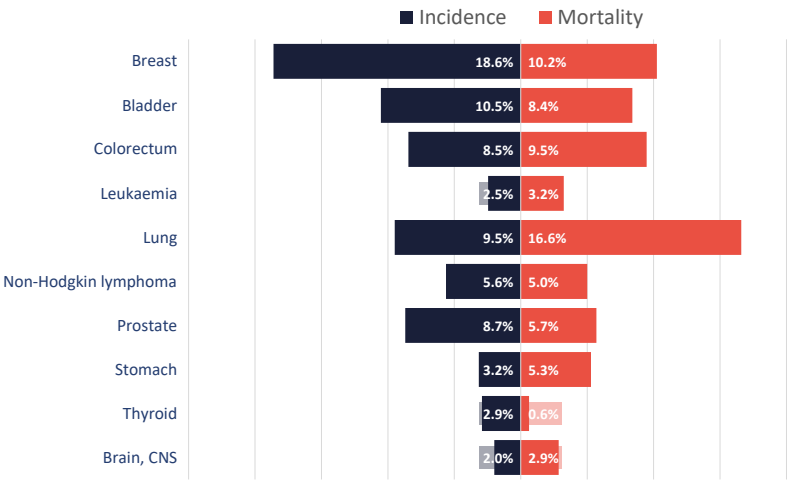
Premature deaths from NCDs (2016)

10,334

Cancer as % of NCD premature deaths (2016)

27.2%

Most common cancer cases (2018)



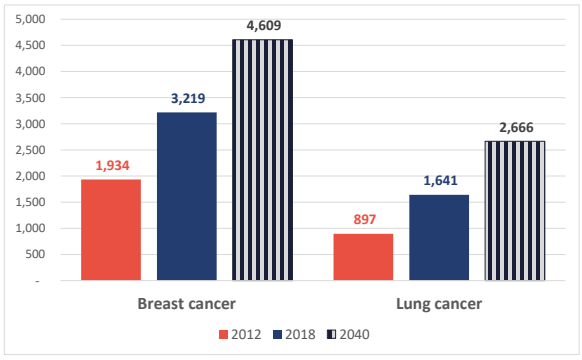
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
24.0%	1.5%	7.3%	5.4%	19.4%	1.4%

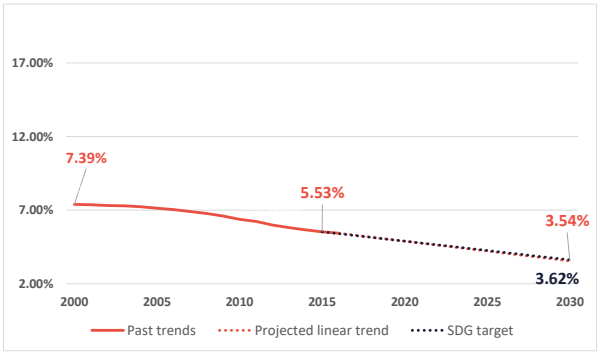
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

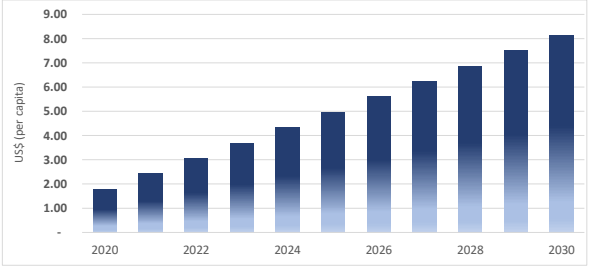


INVESTMENT CASE (2019)

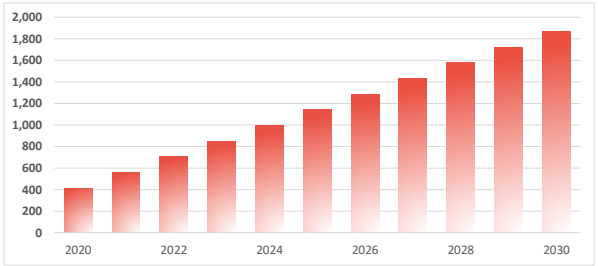
**Upper middle income*

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

Costs per year



Projected lives saved per year



LEBANON

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	13.3
# of mammographs[a]	2020	185.6
# of CT scanners[a]	2020	161.9
# of MRI scanners[a]	2020	63.6
# of PET or PET/CT scanners[a]	2020	9.3

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	11.6
# of surgeons[a]	2014	1472.8
# of radiologist[a]	2019	231.3
# of nuclear medicine physician[a]	2019	8.7
# of medical & pathology lab scientists[a]	2005	309.4

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	40

# Public cancer centres per 10,000 cancer patients	2019	2.9
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 not available
Palliative care availability: community/home-based care	2019	generally not available
Availability of opioids* for pain management	2015-2017	256

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

GLOBAL INITIATIVES

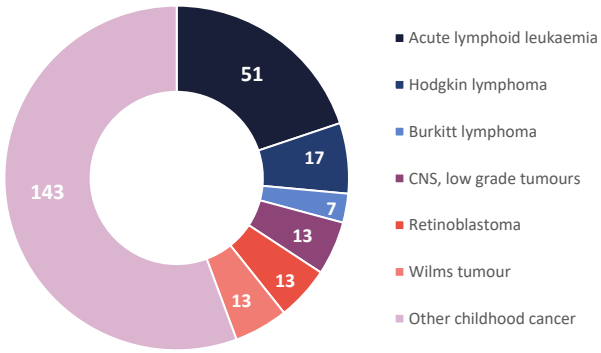
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
Screening programme method	2019	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	257
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

LIBERIA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

4,937,374

Total # cancer cases (2018)	Total # cancer deaths (2018)
2,808	2,223

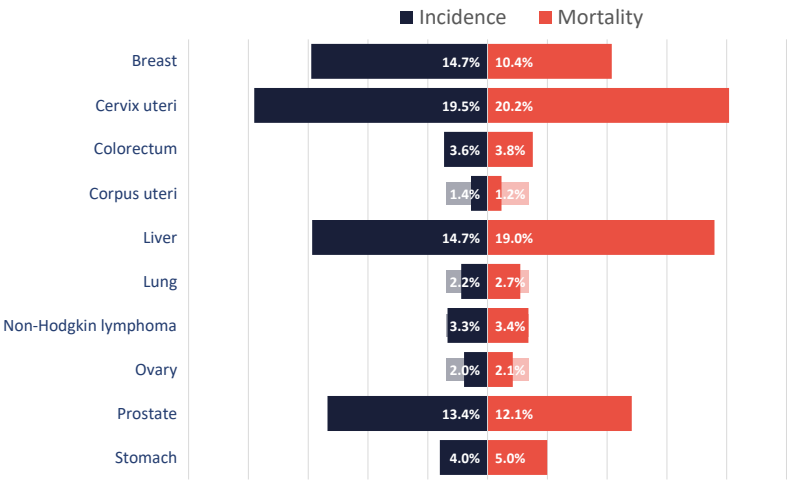
Premature deaths from NCDs (2016)

4,910

Cancer as % of NCD premature deaths (2016)

24.2%

Most common cancer cases (2018)



PAFs

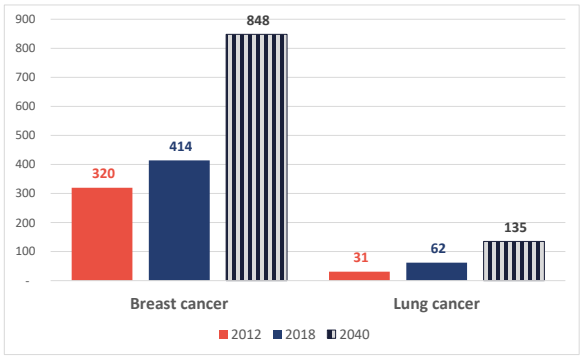
(population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
8.9%	6.6%	37.6%	1.1%	38.6%	0.6%

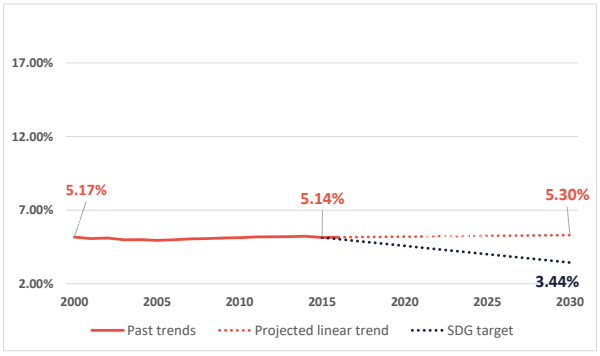
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

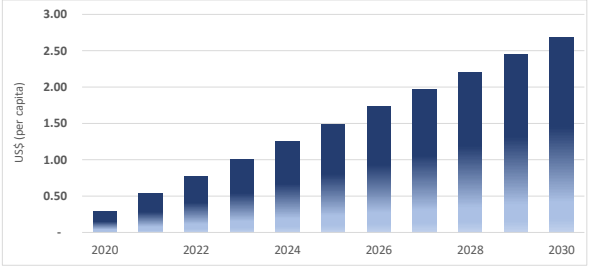


INVESTMENT CASE (2019)

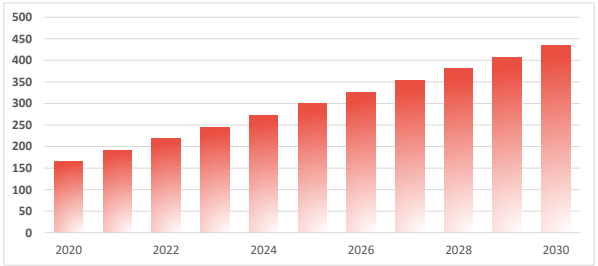
**Low income*

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

Costs per year



Projected lives saved per year



LIBERIA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	0.0
# of mammographs[a]	2020	0.0
# of CT scanners[a]	2020	3.6
# of MRI scanners[a]	2020	0.0
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] *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[a]	2019	0.0
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2009	81.9
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	0.0
# of medical & pathology lab scientists[a]	2010	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 not 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

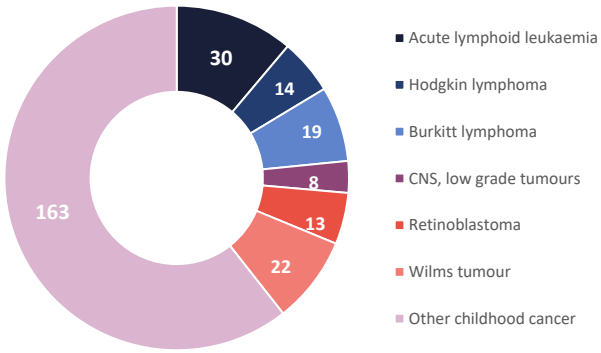
Elimination of Cervical Cancer

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	no
Defined referral system	2019	no

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	269
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

LIBYA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

6,777,453

Total # cancer cases (2018)	Total # cancer deaths (2018)
6,308	3,375

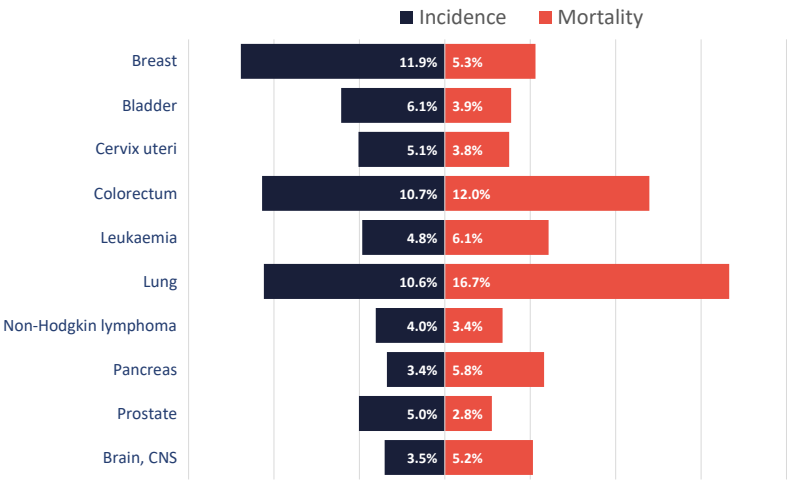
Premature deaths from NCDs (2016)

9,410

Cancer as % of NCD premature deaths (2016)

24.6%

Most common cancer cases (2018)



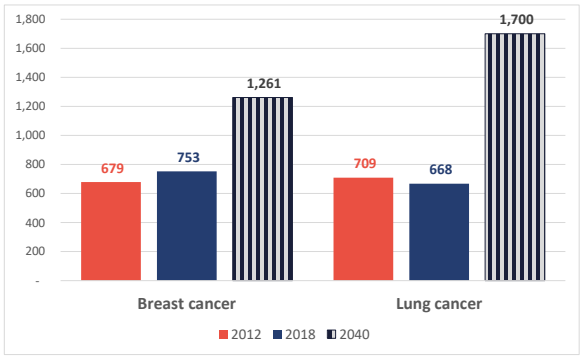
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
16.2%	0.2%	13.7%	5.1%	13.2%	2.7%

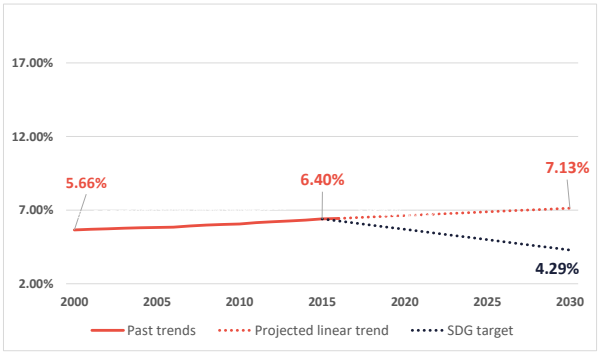
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

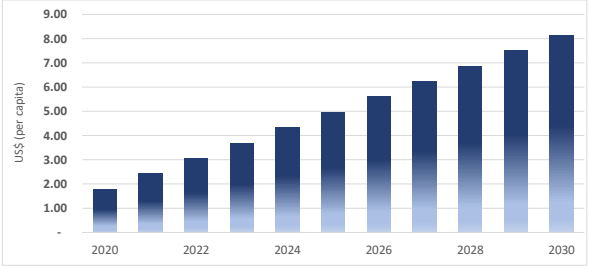


INVESTMENT CASE (2019)

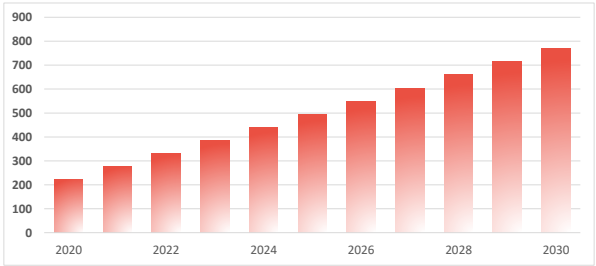
**Upper middle income*

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

Costs per year



Projected lives saved per year



LIBYA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	9.5
# of mammographs[a]	2020	n/a
# of CT scanners[a]	2020	98.3
# of MRI scanners[a]	2020	52.3
# of PET or PET/CT scanners[a]	2020	1.6

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	n/a	n/a
# of radiologist[a]	2019	95.1
# of nuclear medicine physician[a]	2019	15.9
# of medical & pathology lab scientists[a]	n/a	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	not in effect
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	7.9
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	31

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

GLOBAL INITIATIVES

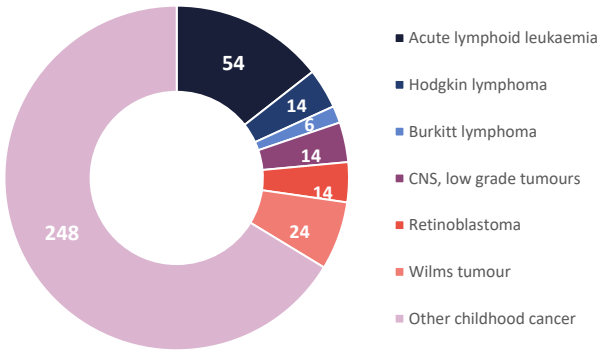
Elimination of Cervical Cancer

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	no

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	374
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

SAINT LUCIA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

182,795

Total # cancer cases (2018)	Total # cancer deaths (2018)
376	222

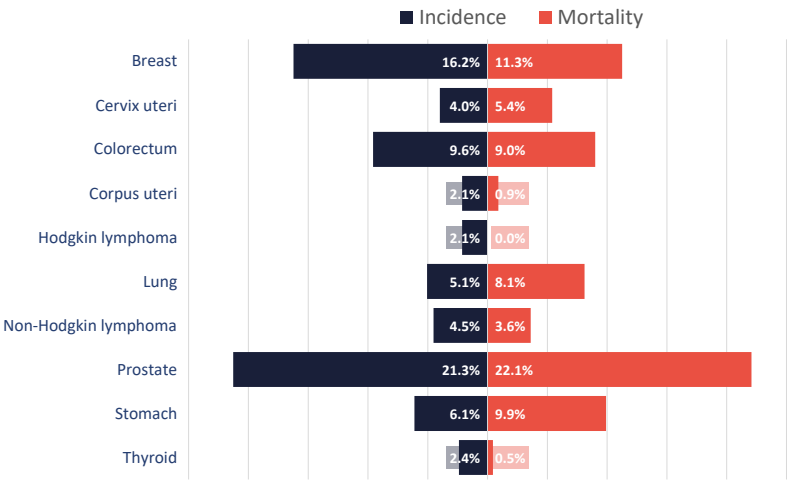
Premature deaths from NCDs (2016)

n/a

Cancer as % of NCD premature deaths (2016)

n/a

Most common cancer cases (2018)



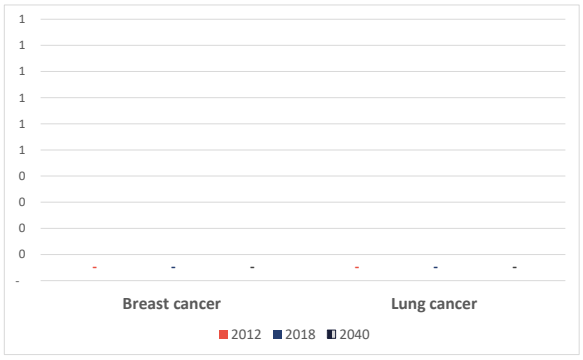
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
13.5%	7.2%	n/a	n/a	n/a	1.0%

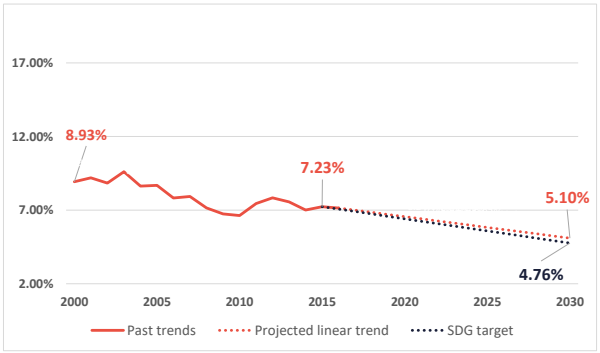
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

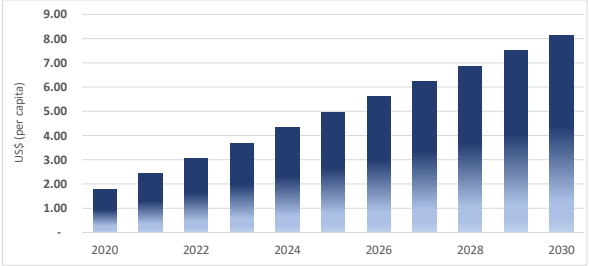


INVESTMENT CASE (2019)

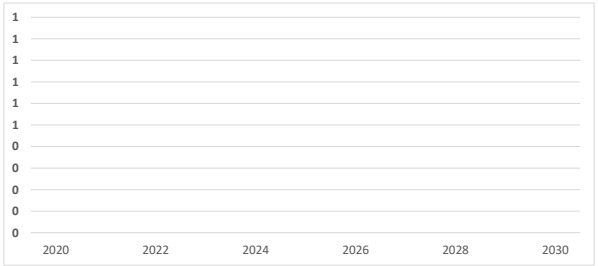
**Upper middle income*

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

Costs per year



Projected lives saved per year



SAINT LUCIA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	0.0
# of mammographs[a]	2020	53.2
# of CT scanners[a]	2020	53.2
# of MRI scanners[a]	2020	26.6
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] 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[a]	2019	0.0
# of medical physicist[a]	2019	0.0
# of surgeons[a]	2014	531.9
# of radiologist[a]	2019	106.4
# of nuclear medicine physician[a]	2019	0.0
# of medical & pathology lab scientists[a]	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	no
Palliative care included in their operational, integrated NCD plan	2019	yes
# 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	-
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

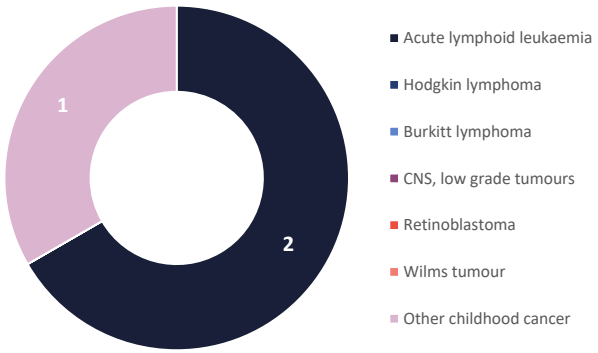
Elimination of Cervical Cancer

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	3
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

SRI LANKA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

21,323,734

Total # cancer cases (2018)	Total # cancer deaths (2018)
23,530	14,013

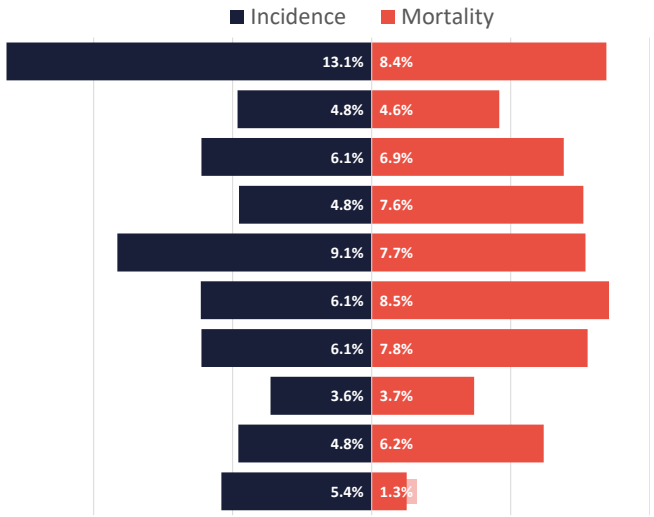
Premature deaths from NCDs (2016)

49,625

Cancer as % of NCD premature deaths (2016)

23.4%

Most common cancer cases (2018)



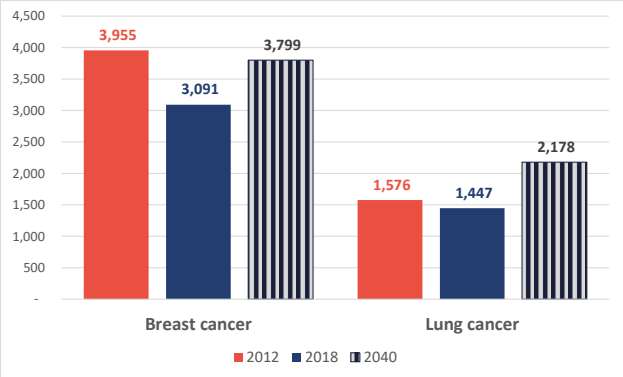
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
18.0%	5.2%	16.2%	1.2%	0.0%	2.0%

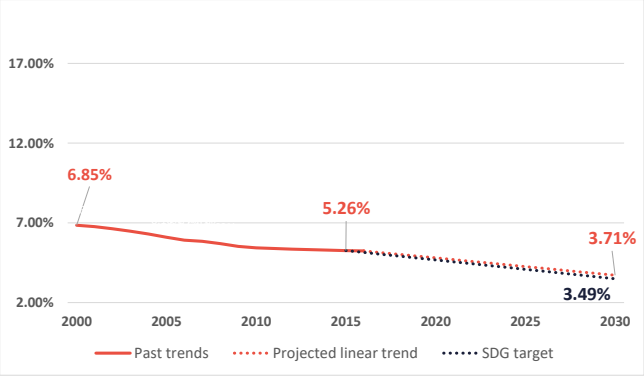
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

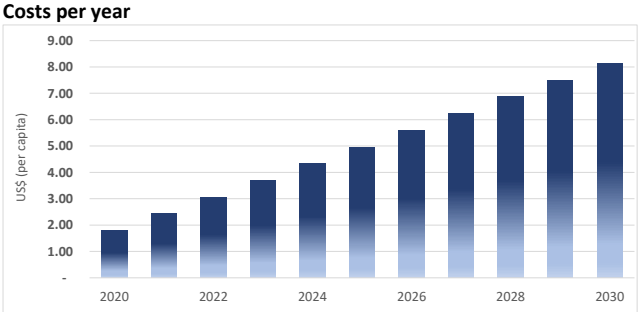


INVESTMENT CASE (2019)

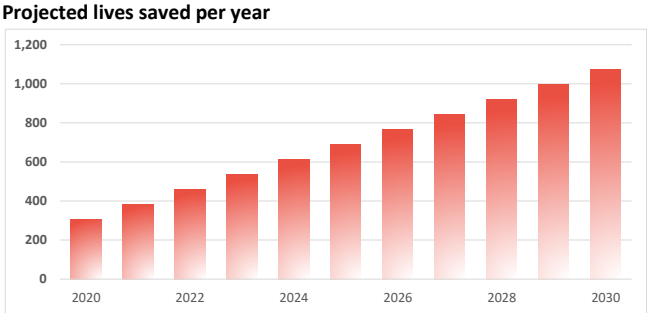
**Upper middle income*

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

Costs per year



Projected lives saved per year



SRI LANKA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	6.8
# of mammographs[a]	2020	11.0
# of CT scanners[a]	2020	20.4
# of MRI scanners[a]	2020	8.9
# of PET or PET/CT scanners[a]	2020	1.3

WORKFORCE

[a] *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[a]	2019	19.1
# of medical physicist[a]	2019	11.0
# of surgeons[a]	2013	50.1
# of radiologist[a]	2019	80.7
# of nuclear medicine physician[a]	2019	1.3
# of medical & pathology lab scientists[a]	2015	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	35

# Public cancer centres per 10,000 cancer patients	2019	3.8
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	44

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

GLOBAL INITIATIVES

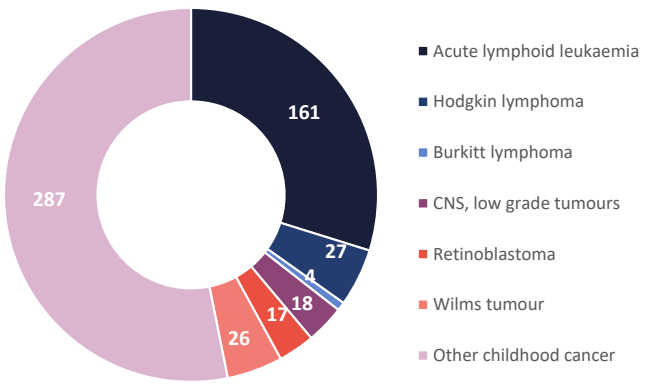
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	66.9
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	540
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

LESOTHO

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

2,125,267

Total # cancer cases (2018)	Total # cancer deaths (2018)
1,888	1,335

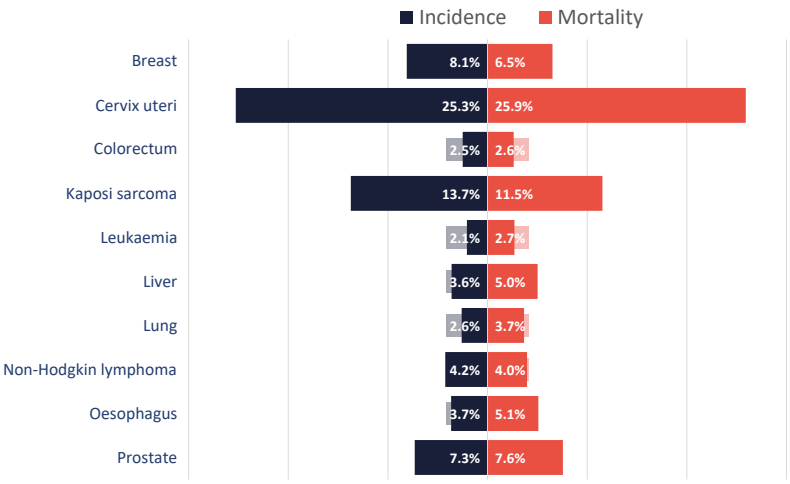
Premature deaths from NCDs (2016)

3,883

Cancer as % of NCD premature deaths (2016)

18.3%

Most common cancer cases (2018)



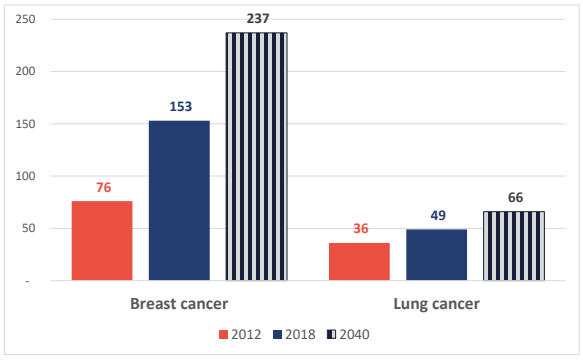
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
17.3%	7.4%	51.9%	1.3%	n/a	4.4%

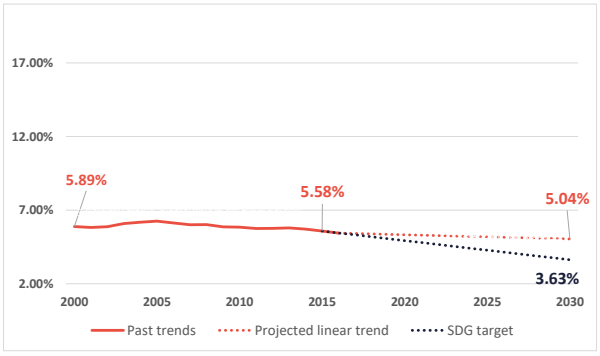
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

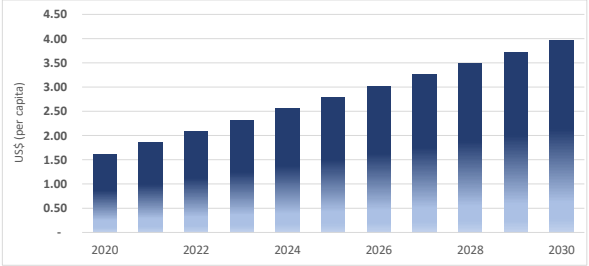


INVESTMENT CASE (2019)

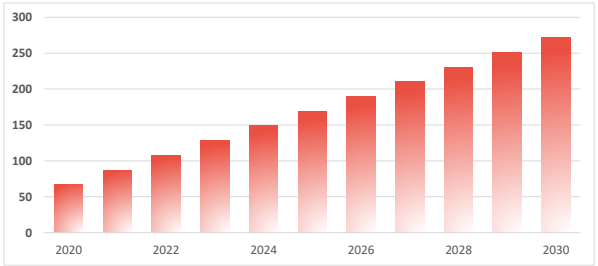
**Lower middle income*

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

Costs per year



Projected lives saved per year



LESOTHO

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	0.0
# of mammographs[a]	2020	n/a
# of CT scanners[a]	2020	10.6
# of MRI scanners[a]	2020	5.3
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	21.2
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	0.0
# of medical & pathology lab scientists[a]	2003	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	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	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 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

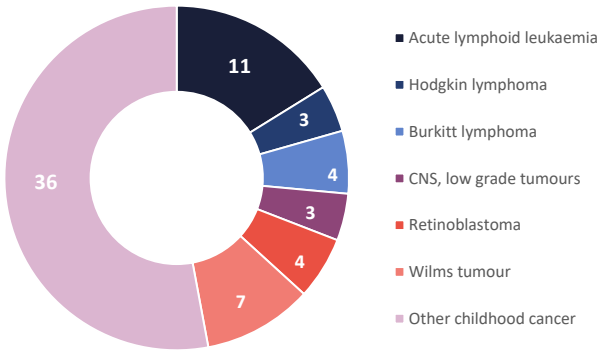
Elimination of Cervical Cancer

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	68
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

LITHUANIA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

2,759,631

Total # cancer cases (2018)	Total # cancer deaths (2018)
16,351	8,583

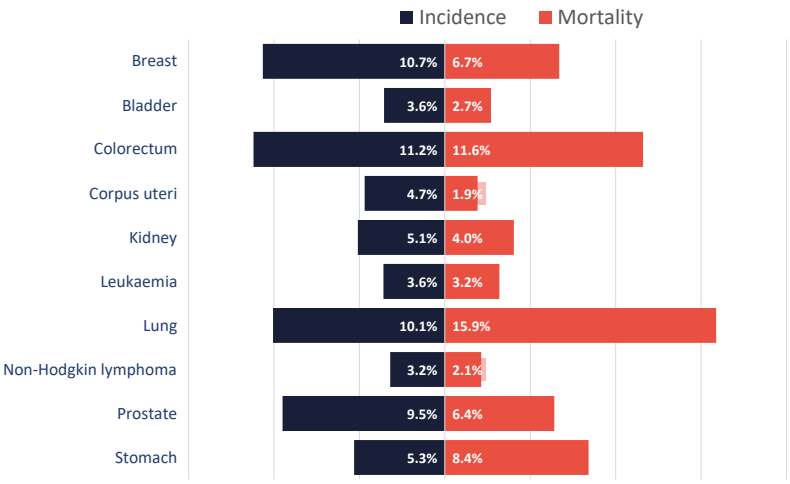
Premature deaths from NCDs (2016)

10,260

Cancer as % of NCD premature deaths (2016)

34.8%

Most common cancer cases (2018)



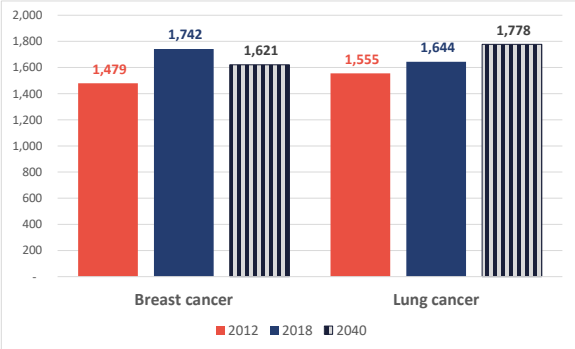
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
26.0%	9.7%	10.1%	6.4%	72.0%	1.5%

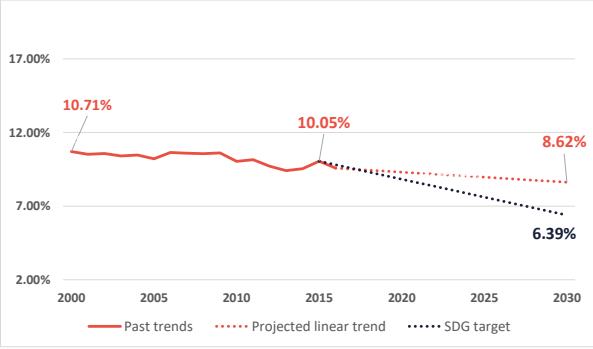
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

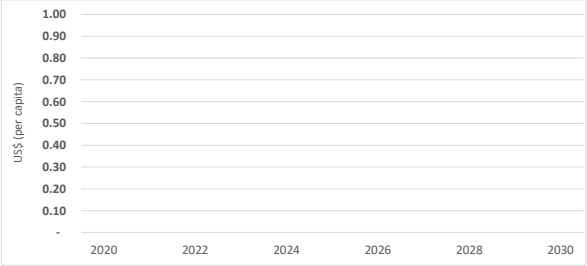


INVESTMENT CASE (2019)

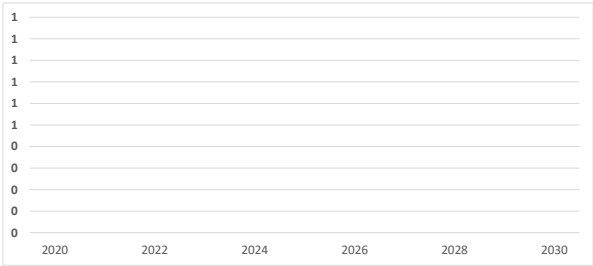
**High income*

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

Costs per year



Projected lives saved per year



LITHUANIA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	7.3
# of mammographs[a]	2020	27.5
# of CT scanners[a]	2020	40.4
# of MRI scanners[a]	2020	21.4
# of PET or PET/CT scanners[a]	2020	1.2

WORKFORCE

[a] 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[a]	2019	20.8
# of medical physicist[a]	2019	28.1
# of surgeons[a]	2013	1485.5
# of radiologist[a]	2019	218.9
# of nuclear medicine physician[a]	2019	11.0
# of medical & pathology lab scientists[a]	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	3.7
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	1001

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

GLOBAL INITIATIVES

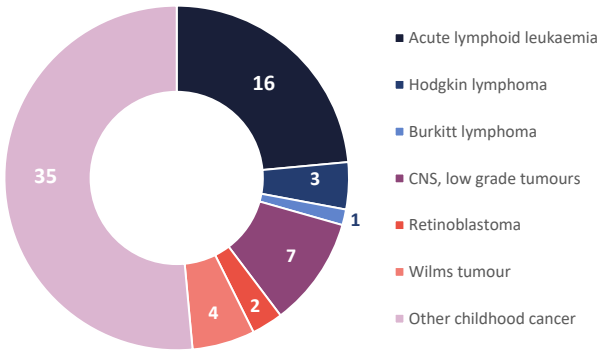
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	45.9
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	68
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Annual cancer cases (0-14 years old)



LUXEMBOURG

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

615,730

Total # cancer cases (2018)	Total # cancer deaths (2018)
3,271	1,121

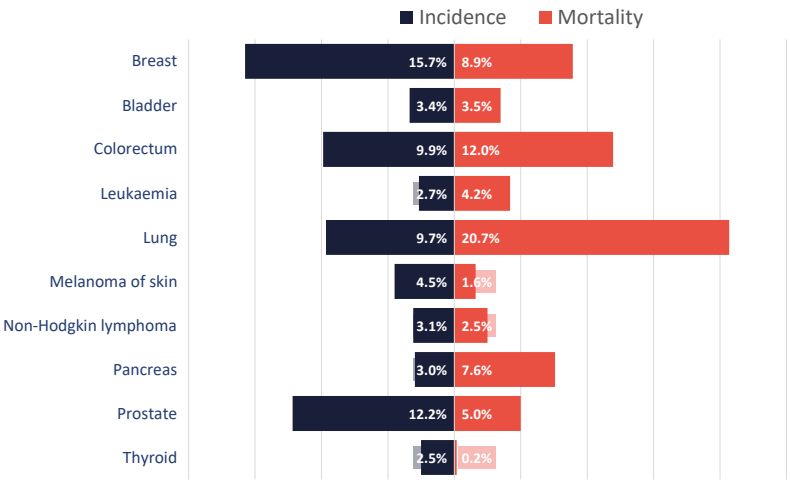
Premature deaths from NCDs (2016)

807

Cancer as % of NCD premature deaths (2016)

51.5%

Most common cancer cases (2018)



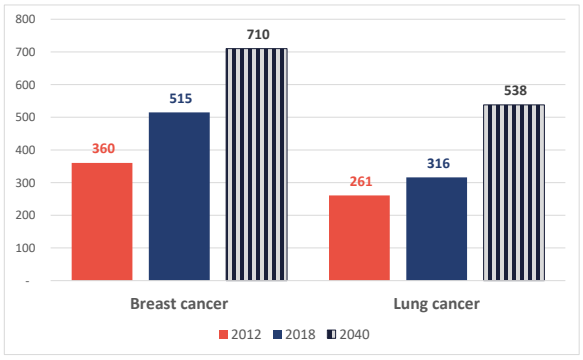
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
26.9%	6.7%	5.4%	6.7%	86.8%	6.8%

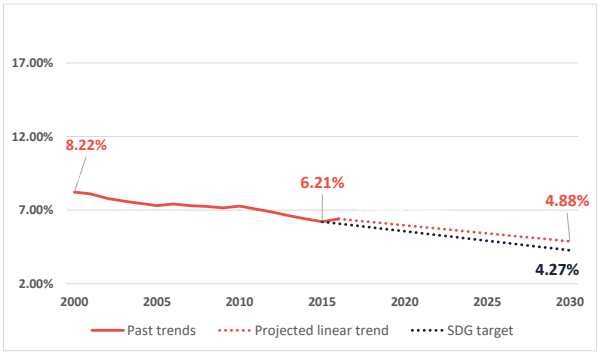
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

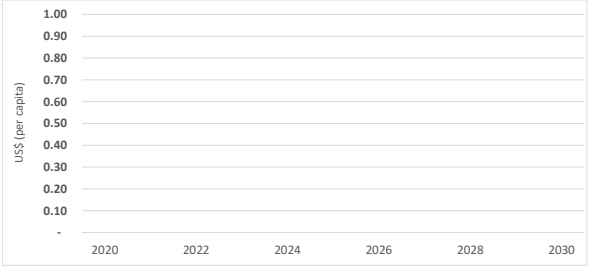


INVESTMENT CASE (2019)

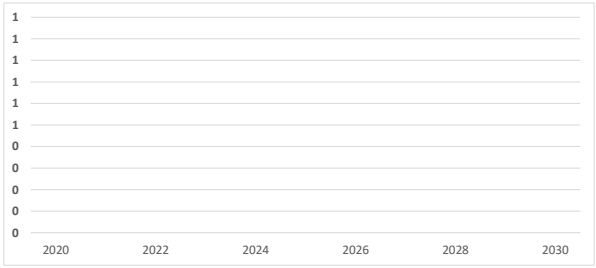
**High income*

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

Costs per year



Projected lives saved per year



LUXEMBOURG

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	12.2
# of mammographs[a]	2020	21.4
# of CT scanners[a]	2020	36.7
# of MRI scanners[a]	2020	21.4
# of PET or PET/CT scanners[a]	2020	3.1

WORKFORCE

[a] 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[a]	2019	18.3
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	889.6
# of radiologist[a]	2019	260.1
# of nuclear medicine physician[a]	2019	42.8
# of medical & pathology lab scientists[a]	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	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	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	8205

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

GLOBAL INITIATIVES

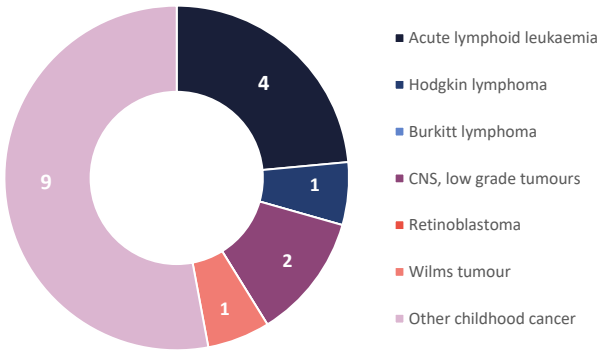
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	14.1
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	17
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Annual cancer cases (0-14 years old)



LATVIA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

1,906,740

Total # cancer cases (2018)	Total # cancer deaths (2018)
12,171	6,087

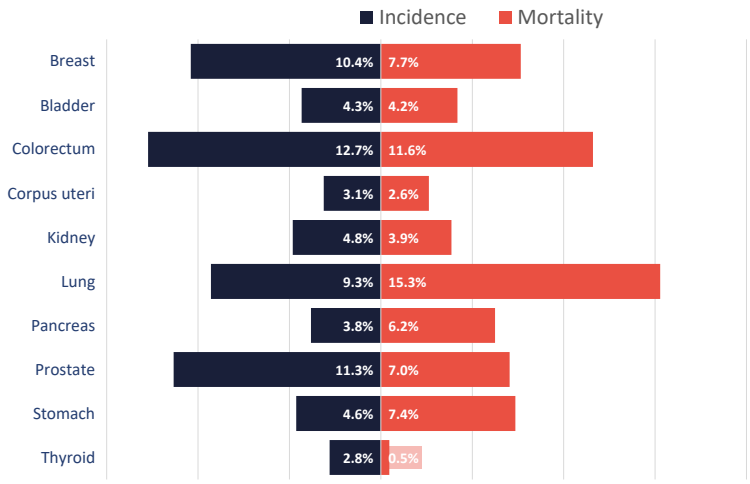
Premature deaths from NCDs (2016)

7,213

Cancer as % of NCD premature deaths (2016)

33.9%

Most common cancer cases (2018)



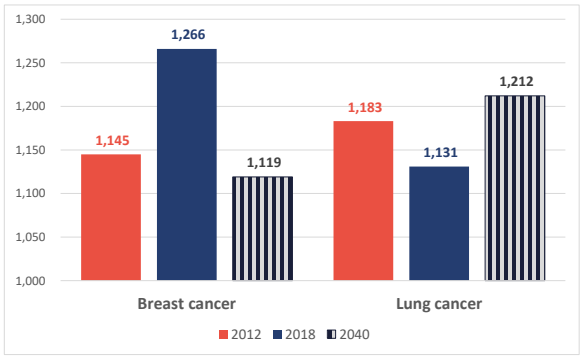
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
25.8%	9.3%	8.8%	5.8%	75.0%	2.0%

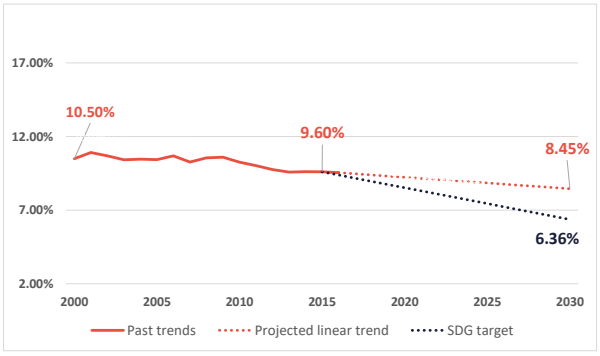
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

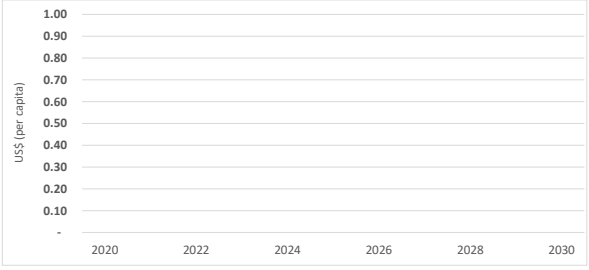


INVESTMENT CASE (2019)

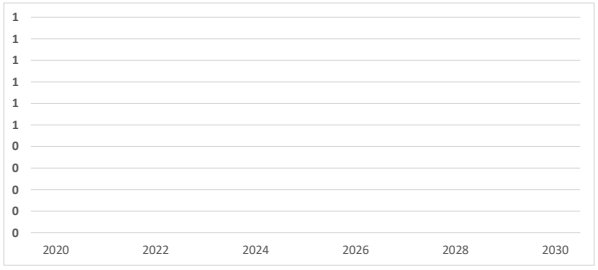
**High income*

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

Costs per year



Projected lives saved per year



LATVIA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	7.4
# of mammographs[a]	2020	40.3
# of CT scanners[a]	2020	59.2
# of MRI scanners[a]	2020	22.2
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	37.0
# of surgeons[a]	2014	866.8
# of radiologist[a]	2019	246.5
# of nuclear medicine physician[a]	2019	n/a
# of medical & pathology lab scientists[a]	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	4.1
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	1883

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

GLOBAL INITIATIVES

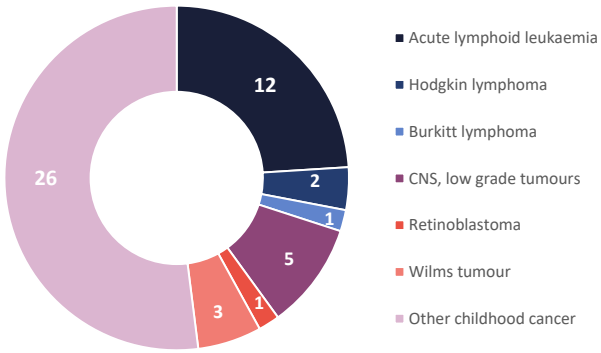
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	53.1
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	50
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Annual cancer cases (0-14 years old)



MOROCCO

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

36,471,766

Total # cancer cases (2018)	Total # cancer deaths (2018)
52,783	32,962

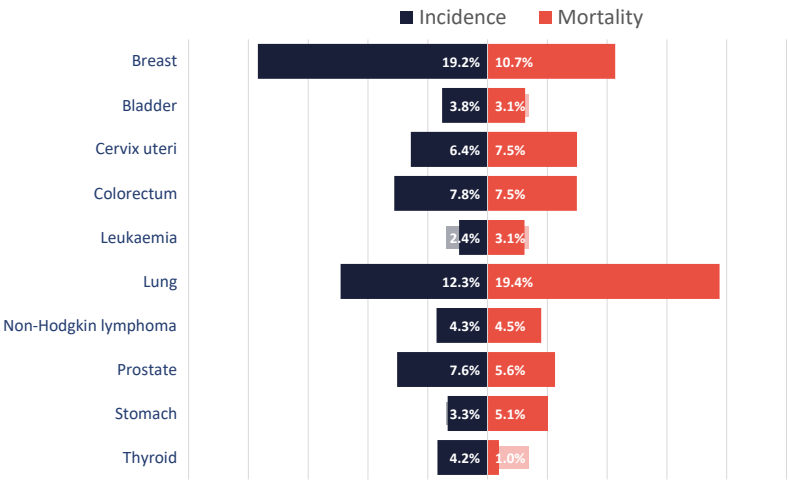
Premature deaths from NCDs (2016)

39,524

Cancer as % of NCD premature deaths (2016)

41.1%

Most common cancer cases (2018)



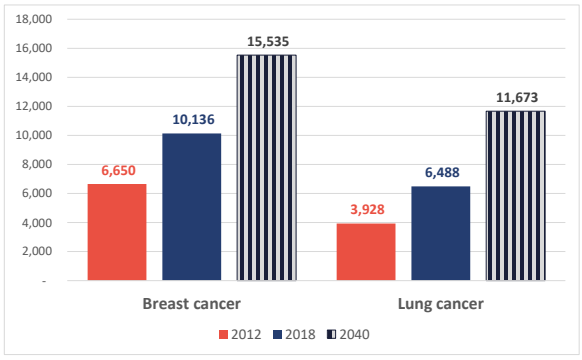
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
17.9%	1.1%	14.3%	3.2%	14.0%	2.3%

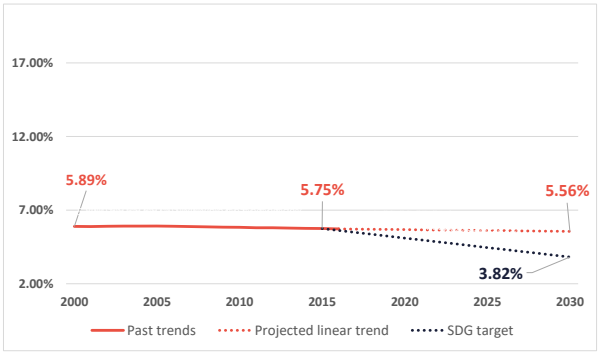
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

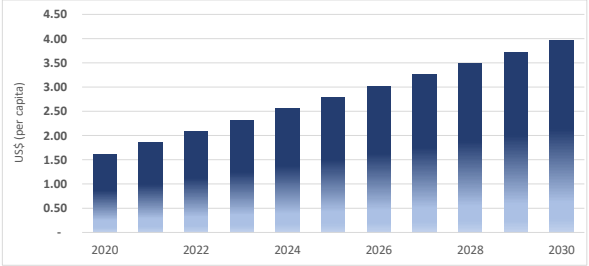


INVESTMENT CASE (2019)

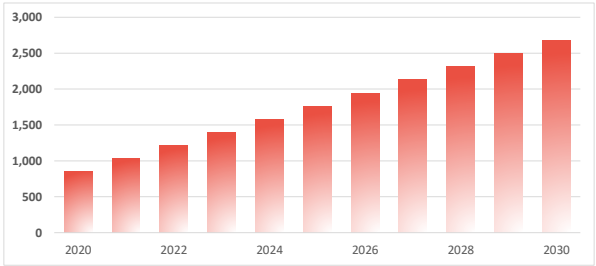
**Lower middle income*

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

Costs per year



Projected lives saved per year



MOROCCO

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	8.0
# of mammographs[a]	2020	43.6
# of CT scanners[a]	2020	53.0
# of MRI scanners[a]	2020	22.7
# of PET or PET/CT scanners[a]	2020	2.3

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	9.5
# of surgeons[a]	2011	480.1
# of radiologist[a]	2019	135.5
# of nuclear medicine physician[a]	2019	12.3
# of medical & pathology lab scientists[a]	2017	112.7

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	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	1.9
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 not available
Availability of opioids* for pain management	2015-2017	42

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

GLOBAL INITIATIVES

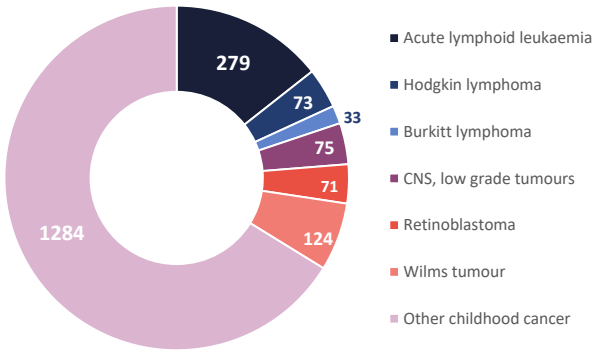
Elimination of Cervical Cancer

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%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	1939
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

MONACO

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

38,967

Total # cancer cases (2018)	Total # cancer deaths (2018)
n/a	n/a

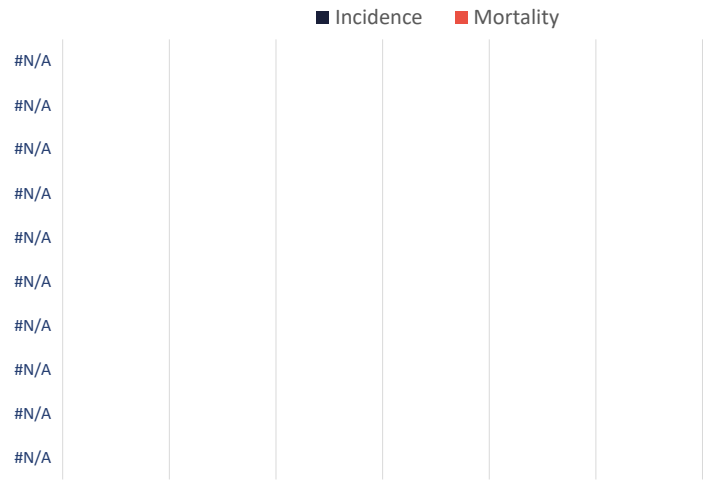
Premature deaths from NCDs (2016)

n/a

Cancer as % of NCD premature deaths (2016)

n/a

Most common cancer cases (2018)



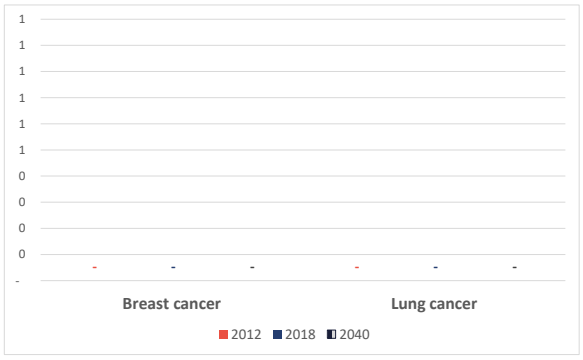
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
n/a	n/a	n/a	n/a	n/a	n/a

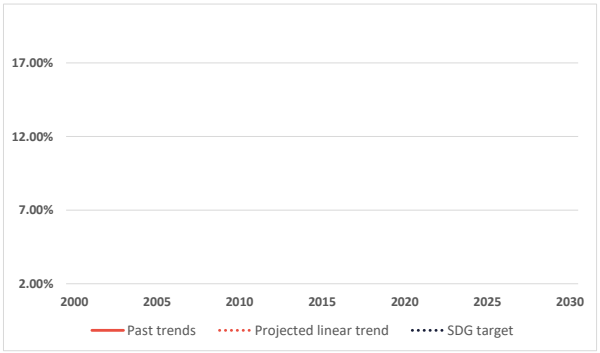
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

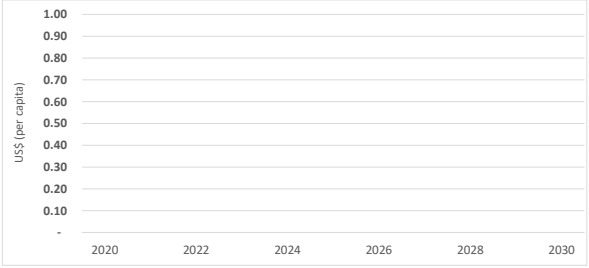


INVESTMENT CASE (2019)

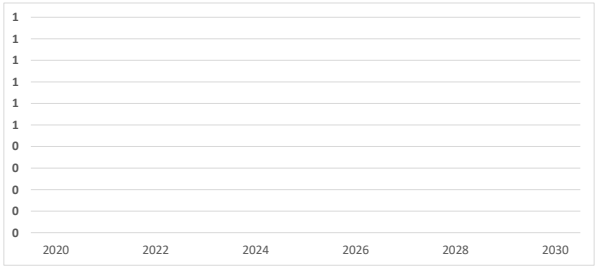
**High income*

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

Costs per year



Projected lives saved per year



MONACO

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	n/a
# of mammographs[a]	2020	n/a
# of CT scanners[a]	2020	n/a
# of MRI scanners[a]	2020	n/a
# of PET or PET/CT scanners[a]	2020	n/a

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	n/a
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	n/a
# of medical & pathology lab scientists[a]	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	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	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 available
Palliative care availability: community/home-based care	2019	generally available
Availability of opioids* for pain management	2015-2017	n/a

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

GLOBAL INITIATIVES

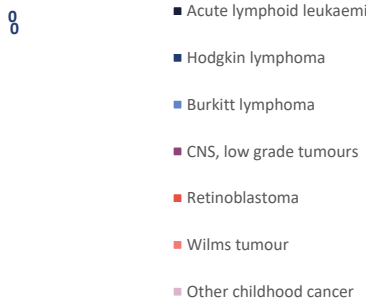
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	0
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
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	n/a
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

MOLDOVA, REPUBLIC OF

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

4,043,258

Total # cancer cases (2018)	Total # cancer deaths (2018)
15,284	8,508

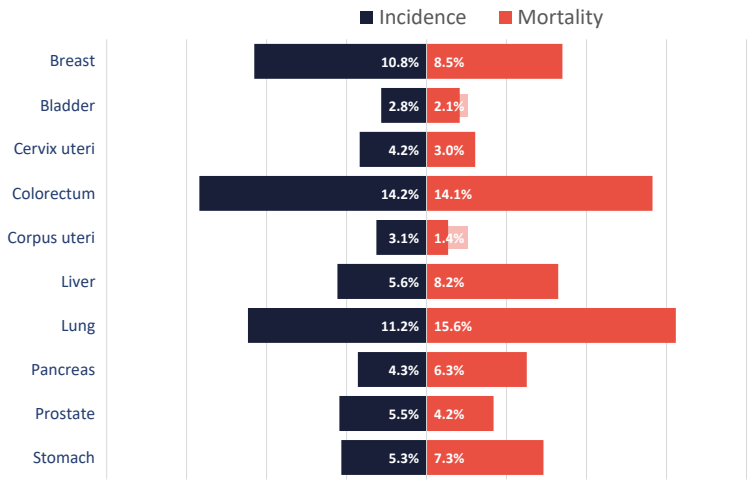
Premature deaths from NCDs (2016)

16,550

Cancer as % of NCD premature deaths (2016)

27.5%

Most common cancer cases (2018)



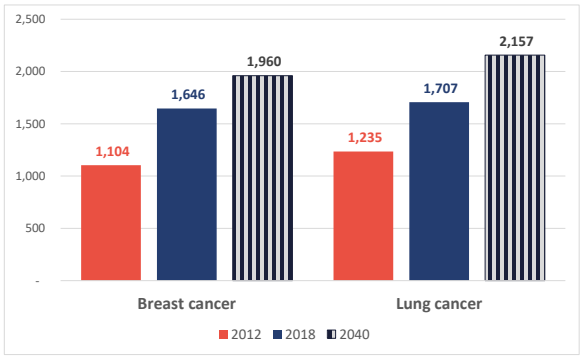
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
n/a	14.5%	13.7%	n/a	n/a	0.7%

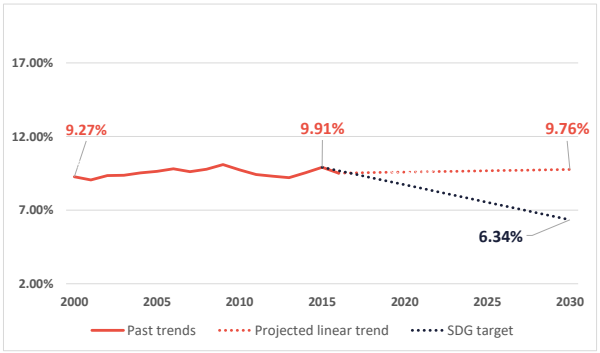
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

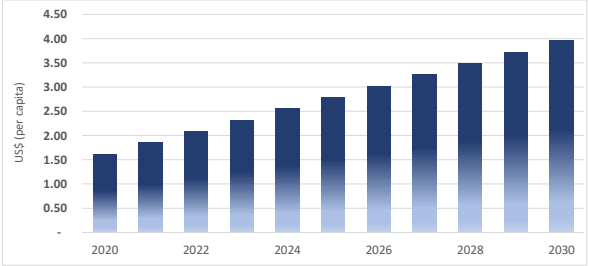


INVESTMENT CASE (2019)

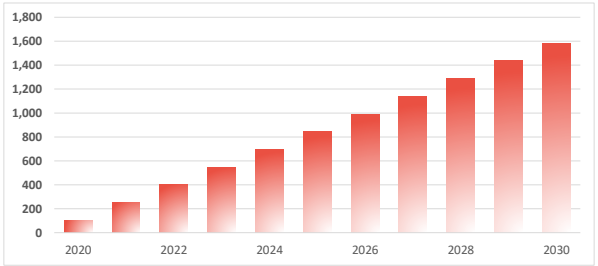
**Lower middle income*

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

Costs per year



Projected lives saved per year



MOLDOVA, REPUBLIC OF

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	2.0
# of mammographs[a]	2020	12.4
# of CT scanners[a]	2020	15.7
# of MRI scanners[a]	2020	7.2
# of PET or PET/CT scanners[a]	2020	2.0

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	9.8
# of surgeons[a]	2013	368.4
# of radiologist[a]	2019	196.3
# of nuclear medicine physician[a]	2019	2.0
# of medical & pathology lab scientists[a]	2015	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	no
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3
Breast cancer screening program	2019	yes
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	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 not available
Availability of opioids* for pain management	2015-2017	292

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

GLOBAL INITIATIVES

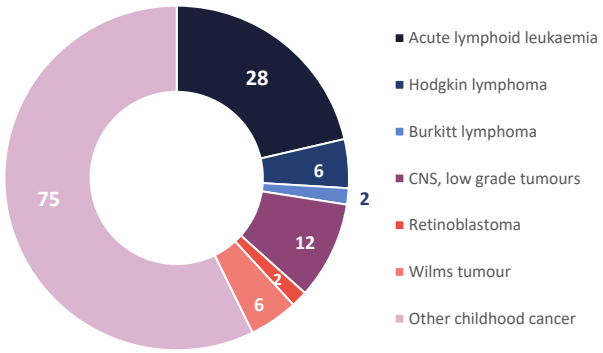
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
Screening programme method	2019	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	131
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Annual cancer cases (0-14 years old)



MADAGASCAR

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

26,969,306

Total # cancer cases (2018)	Total # cancer deaths (2018)
18,074	12,265

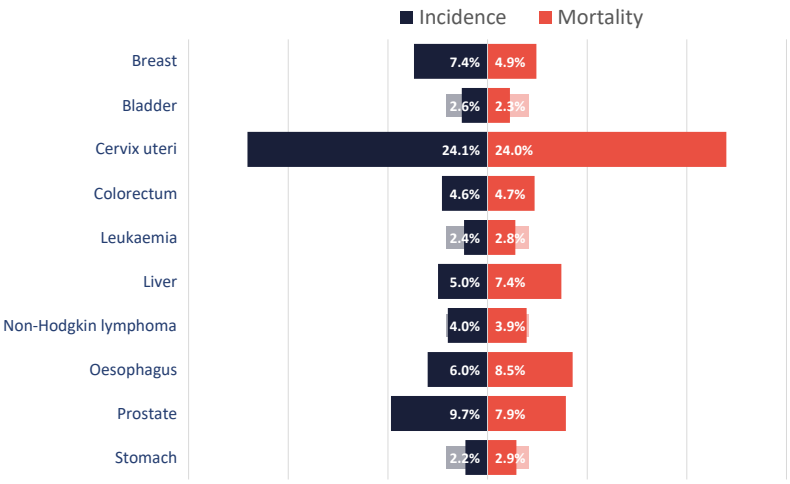
Premature deaths from NCDs (2016)

31,852

Cancer as % of NCD premature deaths (2016)

29.9%

Most common cancer cases (2018)



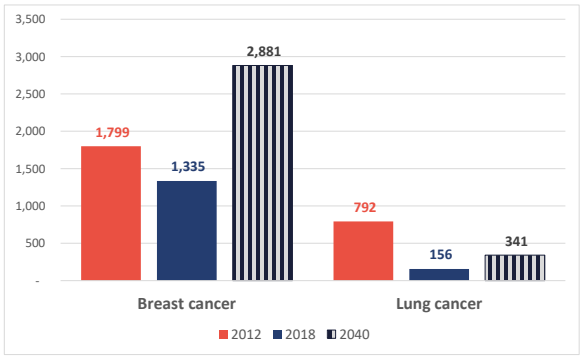
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
8.0%	3.0%	27.4%	0.4%	29.5%	0.7%

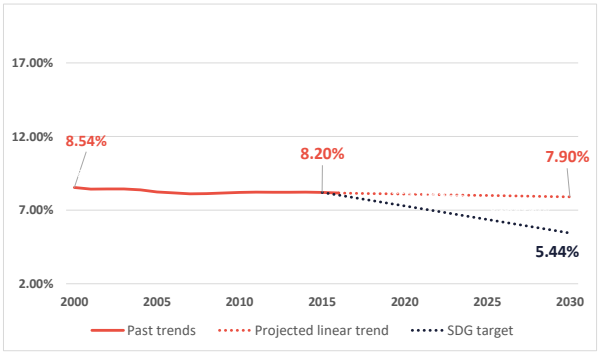
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

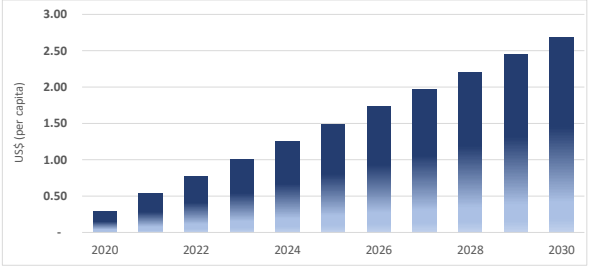


INVESTMENT CASE (2019)

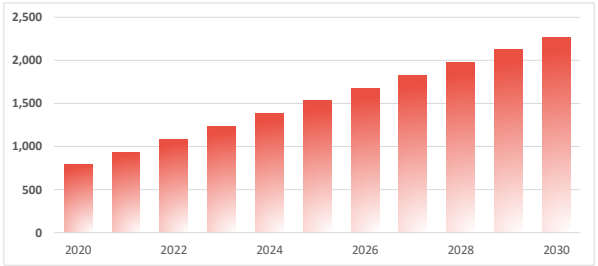
**Low income*

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

Costs per year



Projected lives saved per year



MADAGASCAR

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	1.1
# of mammographs[a]	2020	3.3
# of CT scanners[a]	2020	5.5
# of MRI scanners[a]	2020	0.0
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	1.1
# of surgeons[a]	2013	49.8
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	0.6
# of medical & pathology lab scientists[a]	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	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	2.2
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	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

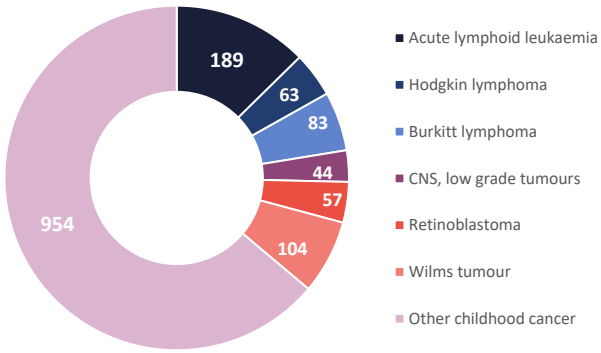
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	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	1494
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

MALDIVES

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

530,957

Total # cancer cases (2018)	Total # cancer deaths (2018)
421	227

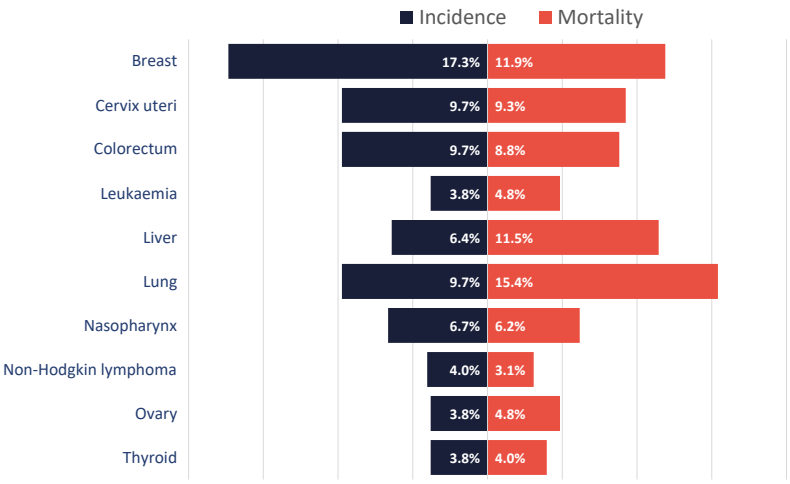
Premature deaths from NCDs (2016)

309

Cancer as % of NCD premature deaths (2016)

40.0%

Most common cancer cases (2018)



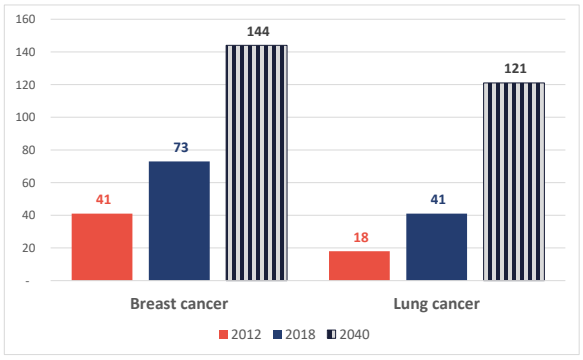
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
22.5%	3.9%	12.2%	2.7%	n/a	2.9%

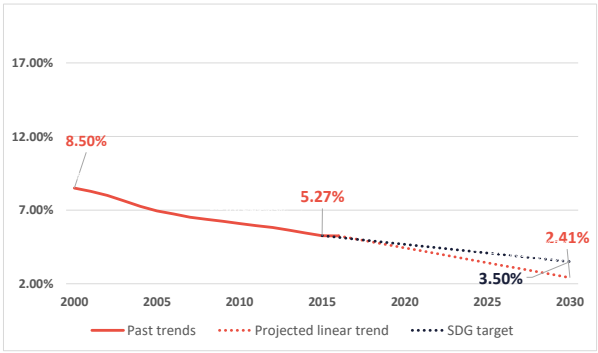
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

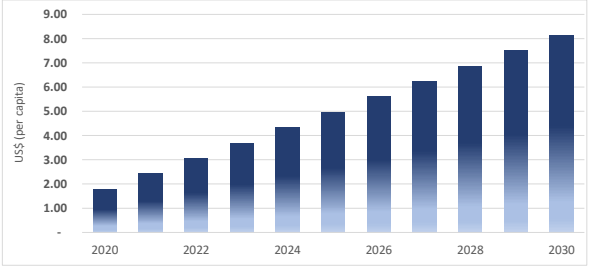


INVESTMENT CASE (2019)

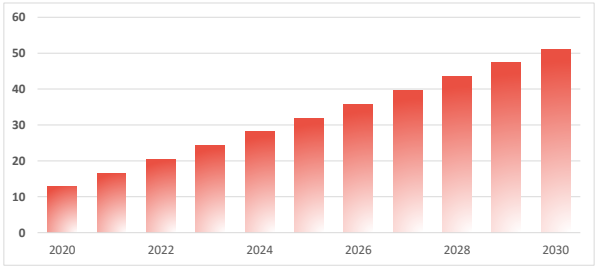
**Upper middle income*

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

Costs per year



Projected lives saved per year



MALDIVES

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	0.0
# of mammographs[a]	2020	23.8
# of CT scanners[a]	2020	71.3
# of MRI scanners[a]	2020	23.8
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	142.5
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	n/a
# of medical & pathology lab scientists[a]	2016	237.5

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	15

# Public cancer centres per 10,000 cancer patients	2019	47.5
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 available
Availability of opioids* for pain management	2015-2017	37

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

GLOBAL INITIATIVES

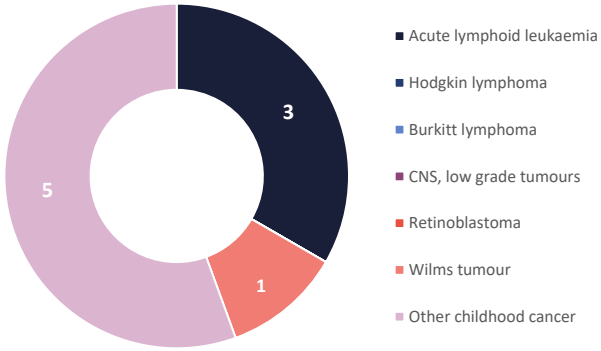
Elimination of Cervical Cancer

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	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	9
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

MEXICO

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

127,575,529

Total # cancer cases (2018)	Total # cancer deaths (2018)
190,667	83,476

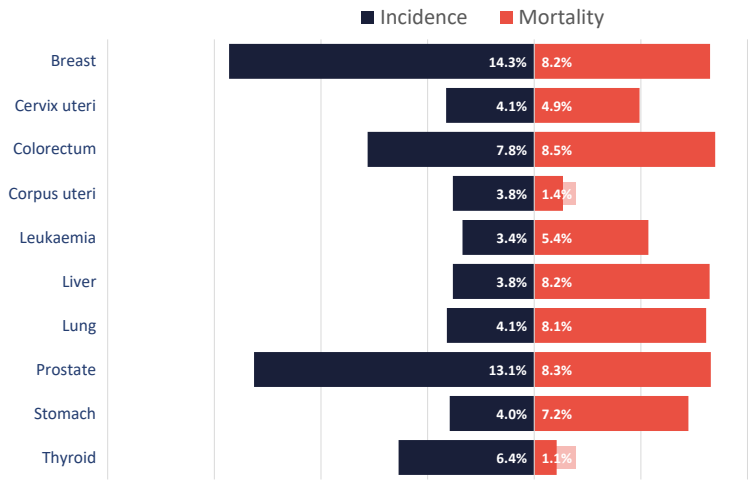
Premature deaths from NCDs (2016)

213,140

Cancer as % of NCD premature deaths (2016)

19.5%

Most common cancer cases (2018)



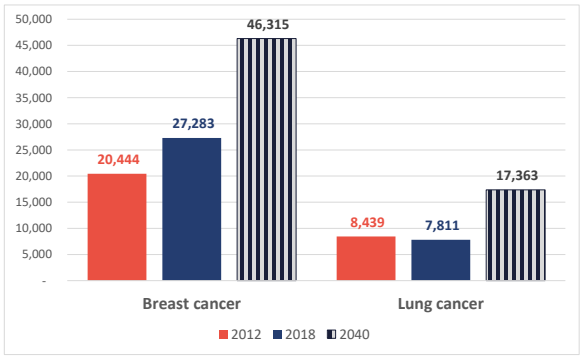
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
13.0%	4.5%	18.4%	4.9%	32.3%	2.1%

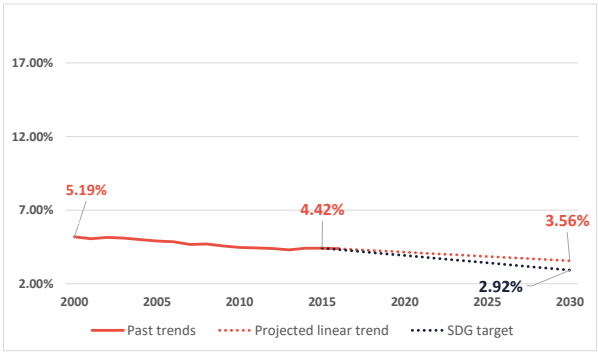
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

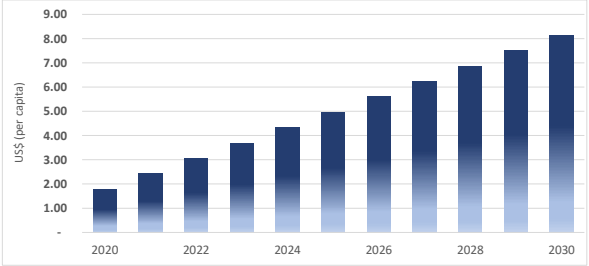


INVESTMENT CASE (2019)

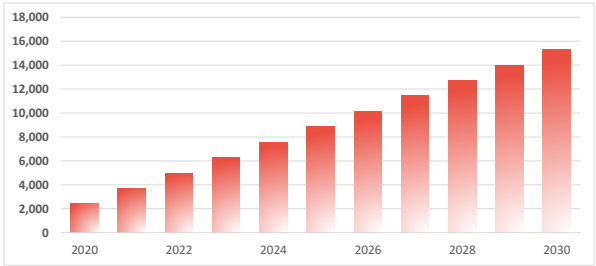
**Upper middle income*

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

Costs per year



Projected lives saved per year



MEXICO

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	8.1
# of mammographs[a]	2020	64.4
# of CT scanners[a]	2020	41.4
# of MRI scanners[a]	2020	17.6
# of PET or PET/CT scanners[a]	2020	2.7

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	7.3
# of surgeons[a]	2012	1358.4
# of radiologist[a]	2019	203.2
# of nuclear medicine physician[a]	2019	12.5
# of medical & pathology lab scientists[a]	2010	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	40

# 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	generally not available
Availability of opioids* for pain management	2015-2017	109

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

GLOBAL INITIATIVES

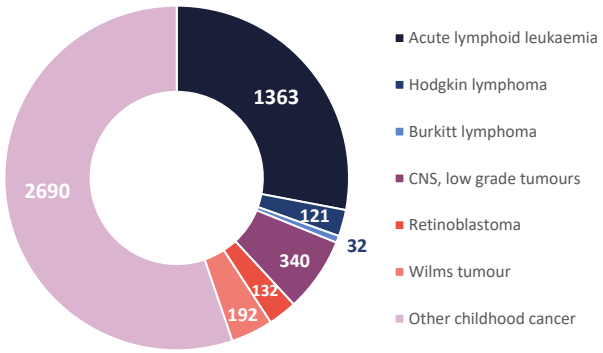
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	98.6
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	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	4870
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Annual cancer cases (0-14 years old)



MARSHALL ISLANDS

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

58,791

Total # cancer cases (2018)	Total # cancer deaths (2018)
n/a	n/a

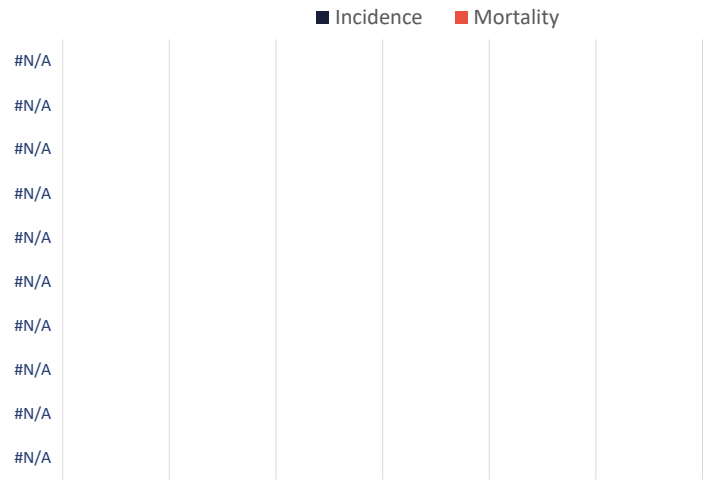
Premature deaths from NCDs (2016)

n/a

Cancer as % of NCD premature deaths (2016)

n/a

Most common cancer cases (2018)



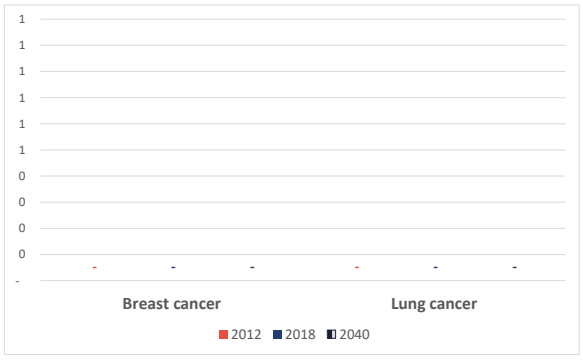
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
15.9%	n/a	n/a	n/a	n/a	2.6%

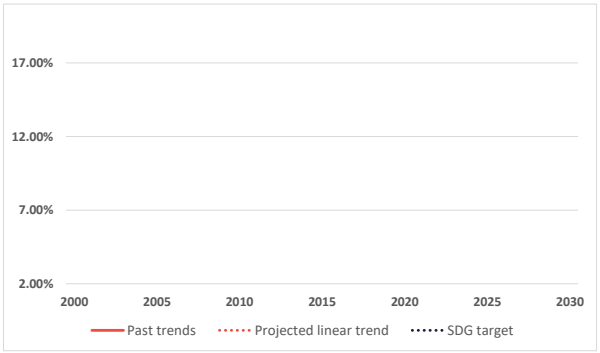
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

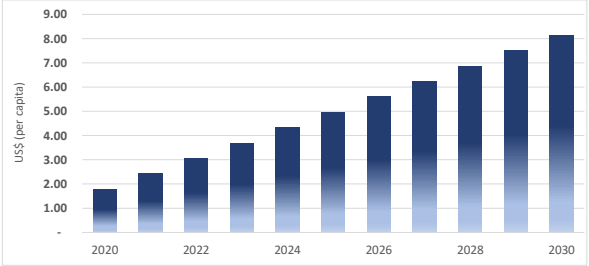


INVESTMENT CASE (2019)

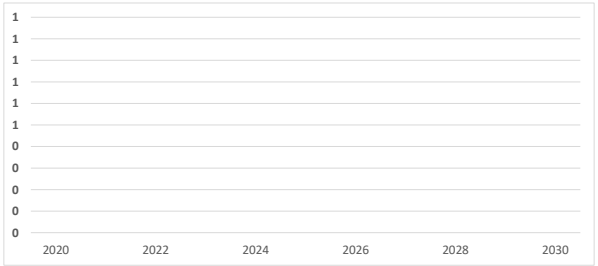
**Upper middle income*

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

Costs per year



Projected lives saved per year



MARSHALL ISLANDS

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	n/a
# of mammographs[a]	2020	n/a
# of CT scanners[a]	2020	n/a
# of MRI scanners[a]	2020	n/a
# of PET or PET/CT scanners[a]	2020	n/a

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2011	n/a
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	n/a
# of medical & pathology lab scientists[a]	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	0
Breast cancer screening program	2019	yes
Breast cancer screening program: Starting age, target population	2019	20

# 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	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	28.1
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	n/a
Early detection programme/guidelines	2019	don't know
Defined referral system	2019	don't know

Annual cancer cases (0-14 years old)

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

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

NORTH MACEDONIA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

2,083,458

Total # cancer cases (2018)	Total # cancer deaths (2018)
7,807	4,116

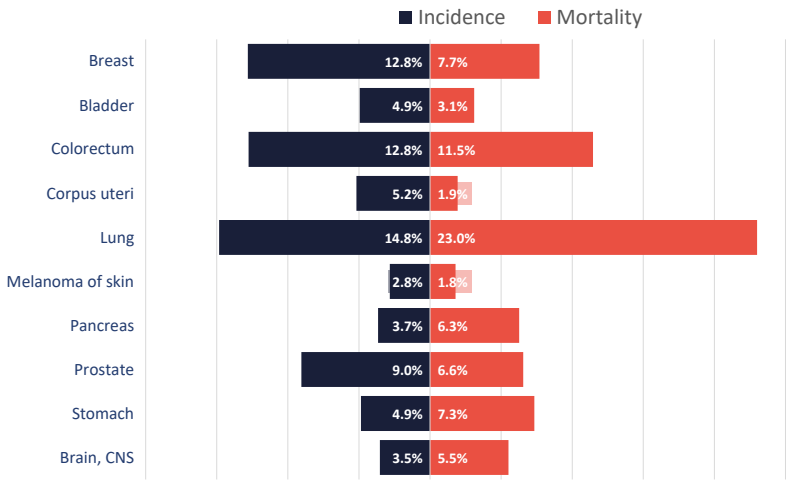
Premature deaths from NCDs (2016)

5,907

Cancer as % of NCD premature deaths (2016)

37.6%

Most common cancer cases (2018)



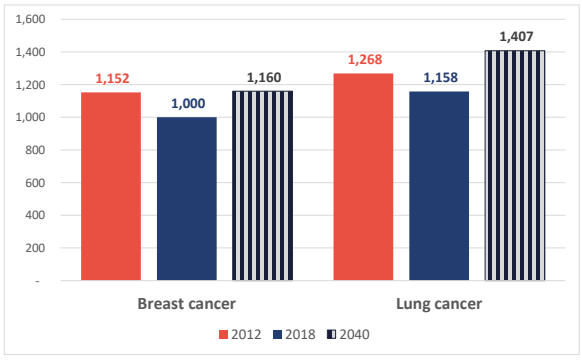
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
n/a	6.5%	10.3%	n/a	n/a	1.1%

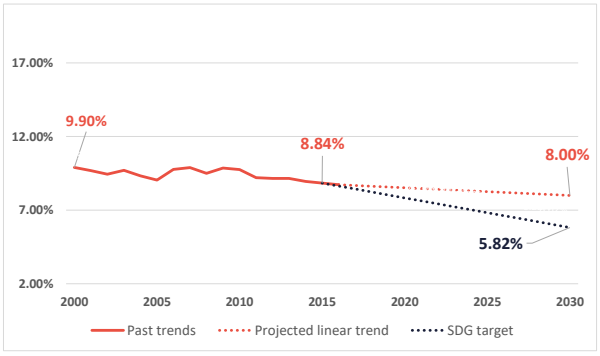
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

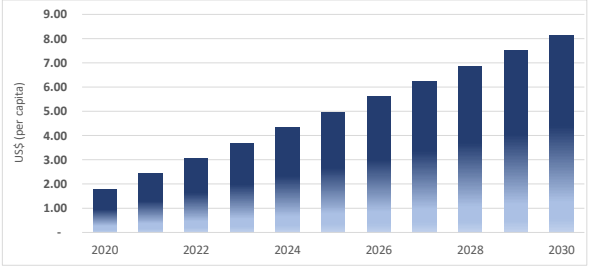


INVESTMENT CASE (2019)

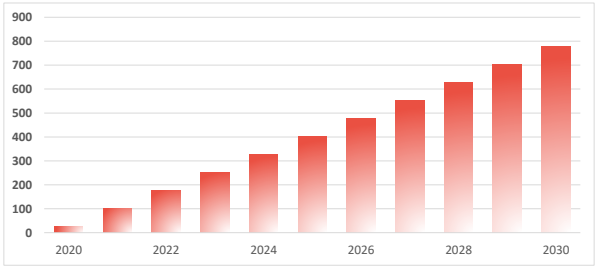
**Upper Middle Income*

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

Costs per year



Projected lives saved per year



NORTH MACEDONIA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	5.1
# of mammographs[a]	2020	38.4
# of CT scanners[a]	2020	35.9
# of MRI scanners[a]	2020	12.8
# of PET or PET/CT scanners[a]	2020	3.8

WORKFORCE

[a] per 10,000 cancer patients

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	don't know
# of radiation oncologist[a]	2019	n/a
# of medical physicist[a]	2019	23.1
# of surgeons[a]	2011	977.3
# of radiologist[a]	2019	294.6
# of nuclear medicine physician[a]	2019	21.8
# of medical & pathology lab scientists[a]	n/a	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	under development
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	6.4
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 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

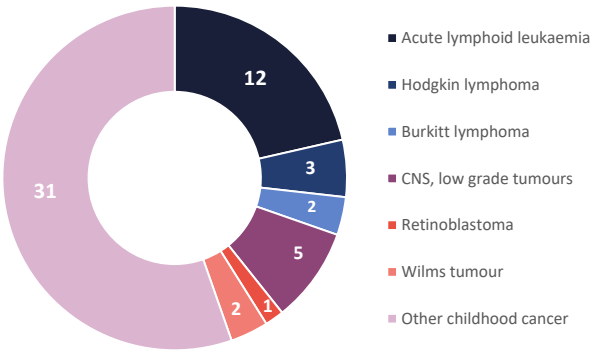
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	40
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	56
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

MALI

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

19,658,023

Total # cancer cases (2018)	Total # cancer deaths (2018)
13,114	9,633

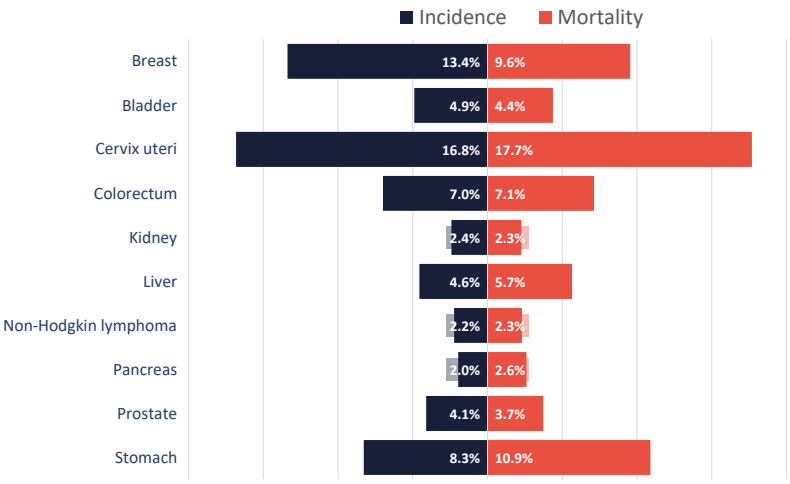
Premature deaths from NCDs (2016)

22,979

Cancer as % of NCD premature deaths (2016)

23.3%

Most common cancer cases (2018)



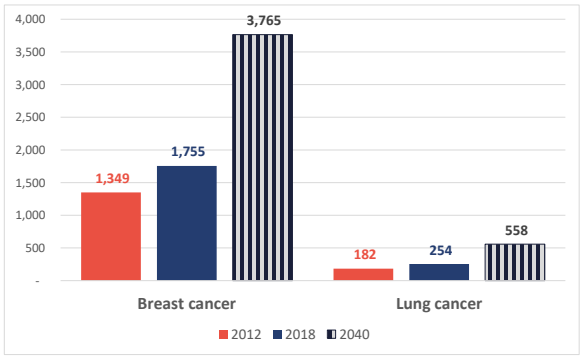
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
6.6%	1.5%	34.8%	0.8%	44.9%	0.4%

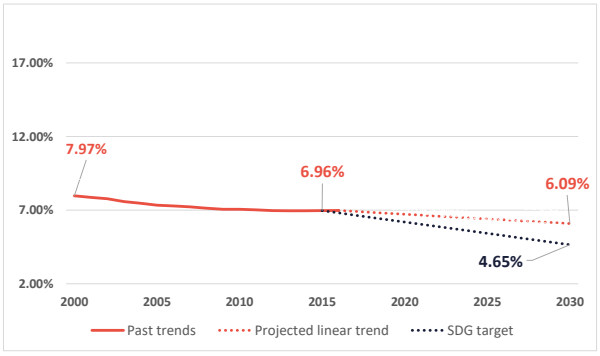
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

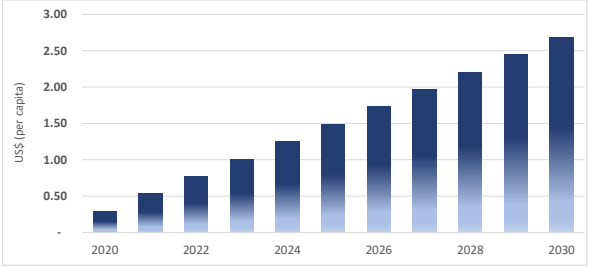


INVESTMENT CASE (2019)

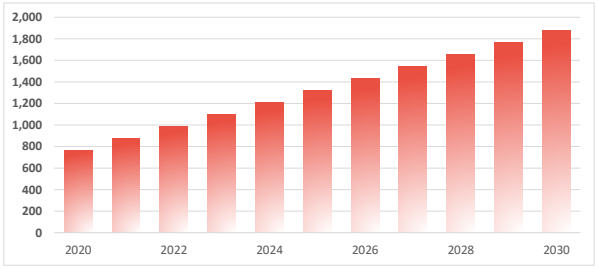
**Low income*

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

Costs per year



Projected lives saved per year



MALI

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	0.8
# of mammographs[a]	2020	18.3
# of CT scanners[a]	2020	13.7
# of MRI scanners[a]	2020	0.0
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	0.8
# of surgeons[a]	2014	115.1
# of radiologist[a]	2019	45.8
# of nuclear medicine physician[a]	2019	0.8
# of medical & pathology lab scientists[a]	2010	21.4

FORMULATING RESPONSE

Integrated NCD plan	2019	under development
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	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	-
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	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

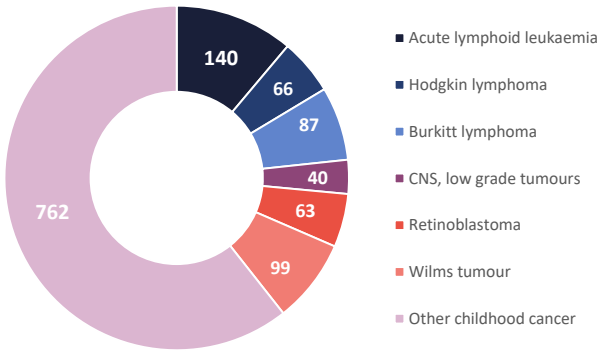
Elimination of Cervical Cancer

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	no
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	1257
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

MALTA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

440,377

Total # cancer cases (2018)	Total # cancer deaths (2018)
2,307	935

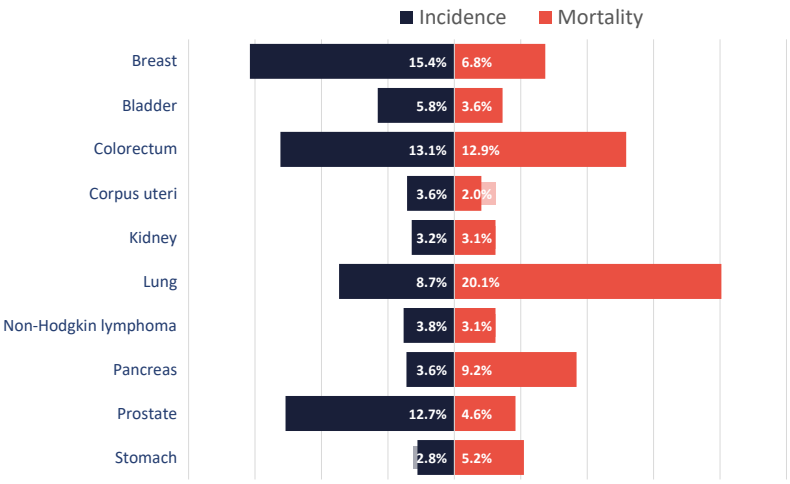
Premature deaths from NCDs (2016)

768

Cancer as % of NCD premature deaths (2016)

49.2%

Most common cancer cases (2018)



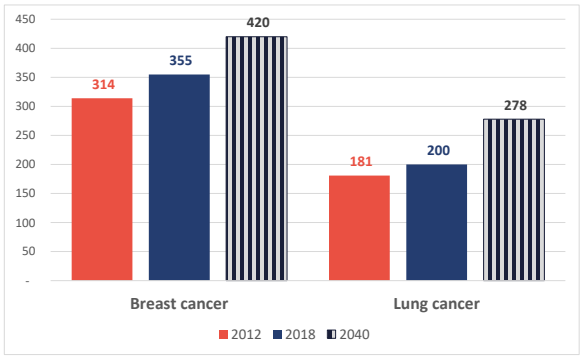
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
24.8%	6.2%	5.7%	7.6%	73.8%	8.1%

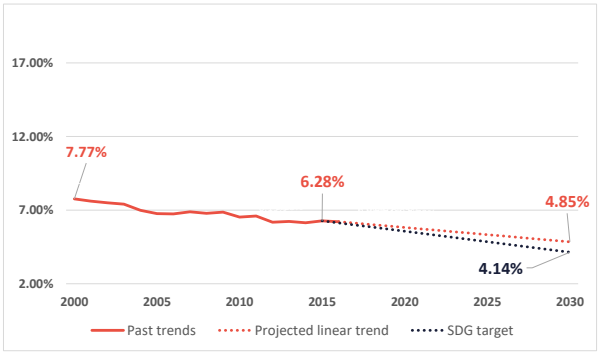
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

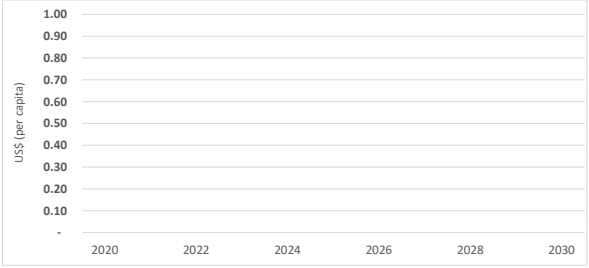


INVESTMENT CASE (2019)

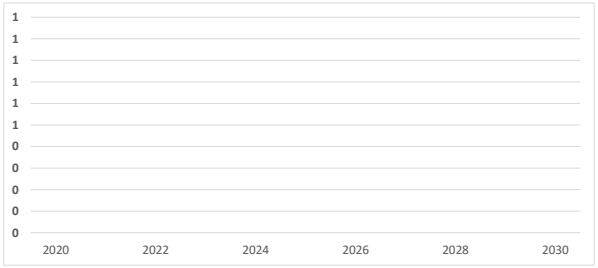
**High income*

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

Costs per year



Projected lives saved per year



MALTA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	13.0
# of mammographs[a]	2020	69.4
# of CT scanners[a]	2020	39.0
# of MRI scanners[a]	2020	21.7
# of PET or PET/CT scanners[a]	2020	8.7

WORKFORCE

[a] 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[a]	2019	17.3
# of medical physicist[a]	2019	17.3
# of surgeons[a]	2014	927.6
# of radiologist[a]	2019	167.7
# of nuclear medicine physician[a]	2019	21.7
# of medical & pathology lab scientists[a]	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	50

# Public cancer centres per 10,000 cancer patients	2019	4.3
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 not available
Palliative care availability: community/home-based care	2019	generally available
Availability of opioids* for pain management	2015-2017	495

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

GLOBAL INITIATIVES

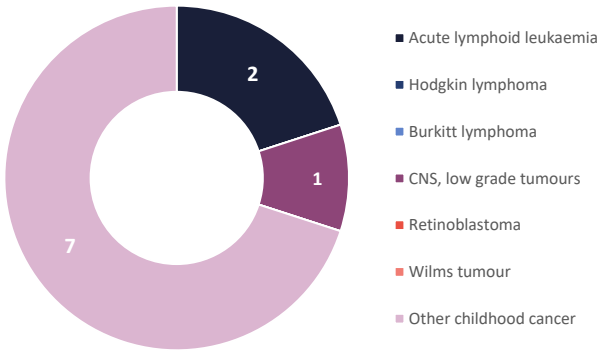
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	80.9
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	no

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	10
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Annual cancer cases (0-14 years old)



MYANMAR

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

54,045,422

Total # cancer cases (2018)	Total # cancer deaths (2018)
69,554	51,059

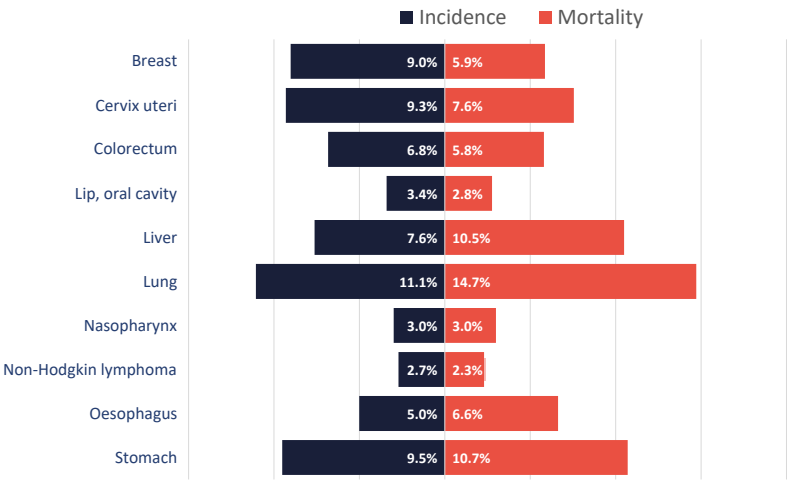
Premature deaths from NCDs (2016)

144,670

Cancer as % of NCD premature deaths (2016)

25.3%

Most common cancer cases (2018)



PAFs

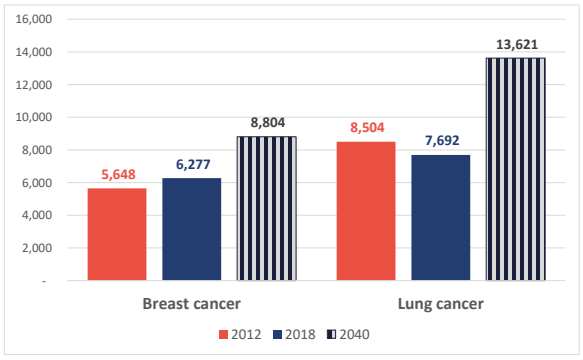
(population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
24.7%	4.7%	23.6%	0.7%	0.0%	2.3%

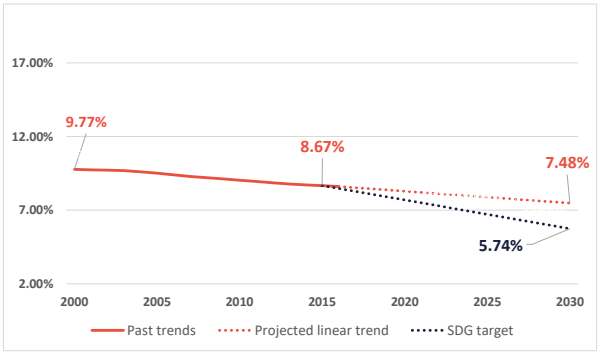
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

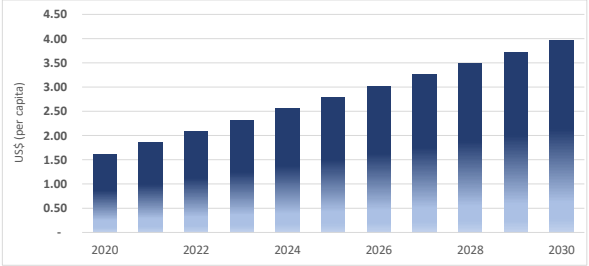


INVESTMENT CASE (2019)

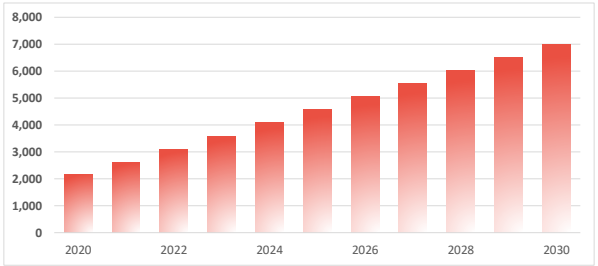
**Lower middle income*

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

Costs per year



Projected lives saved per year



MYANMAR

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	2.7
# of mammographs[a]	2020	0.4
# of CT scanners[a]	2020	6.5
# of MRI scanners[a]	2020	0.6
# of PET or PET/CT scanners[a]	2020	0.1

WORKFORCE

[a] 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[a]	2019	3.6
# of medical physicist[a]	2019	4.3
# of surgeons[a]	2013	68.7
# of radiologist[a]	2019	48.9
# of nuclear medicine physician[a]	2019	0.9
# of medical & pathology lab scientists[a]	2015	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	2
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	0.7
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	11

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

GLOBAL INITIATIVES

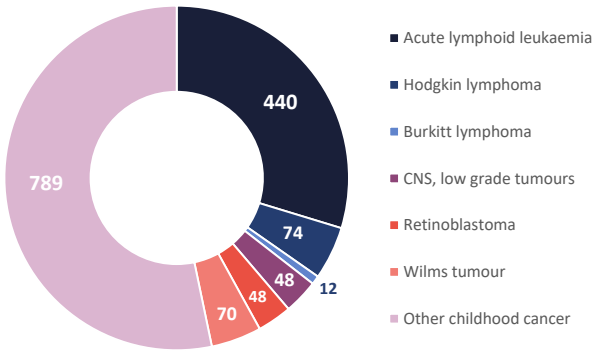
Elimination of Cervical Cancer

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	1481
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

MONTENEGRO

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

627,988

Total # cancer cases (2018)	Total # cancer deaths (2018)
2,366	1,287

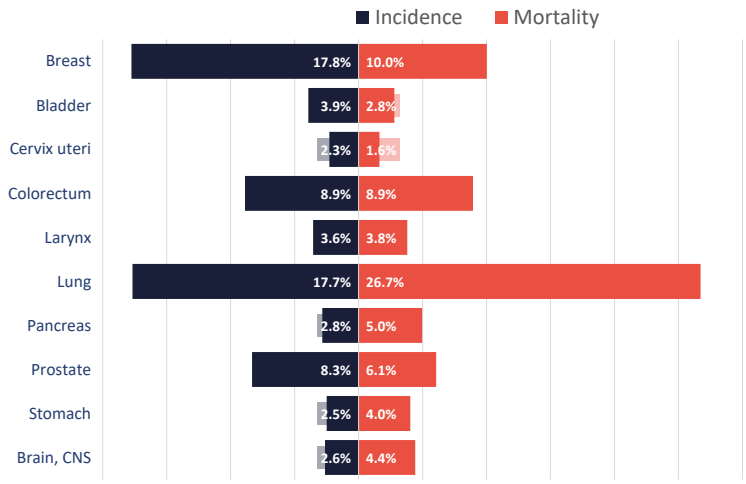
Premature deaths from NCDs (2016)

1,828

Cancer as % of NCD premature deaths (2016)

49.1%

Most common cancer cases (2018)



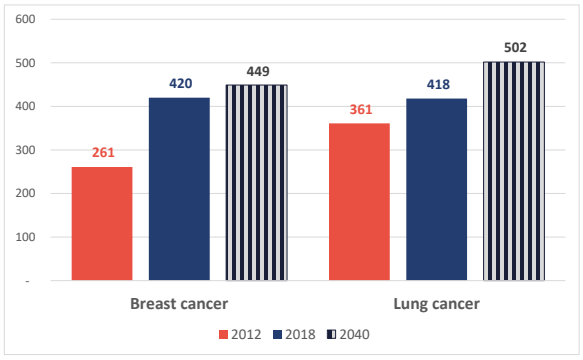
PAFs (population attributable fractions)

43.3%	7.1%	9.7%	5.0%	69.2%	2.2%
Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]

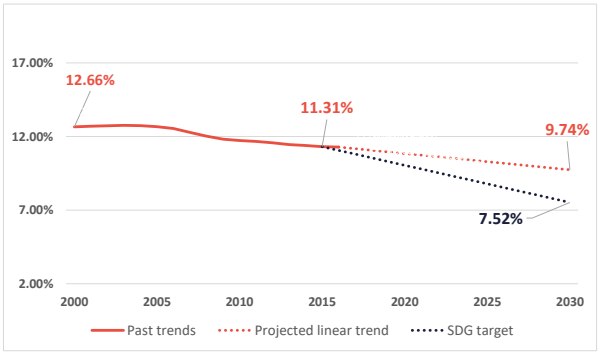
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

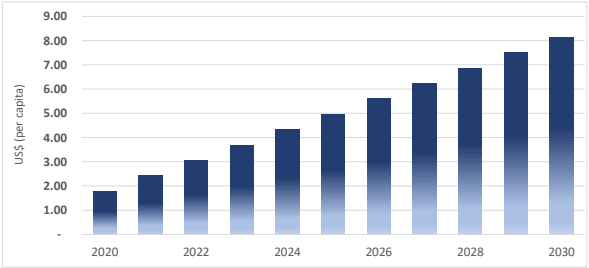


INVESTMENT CASE (2019)

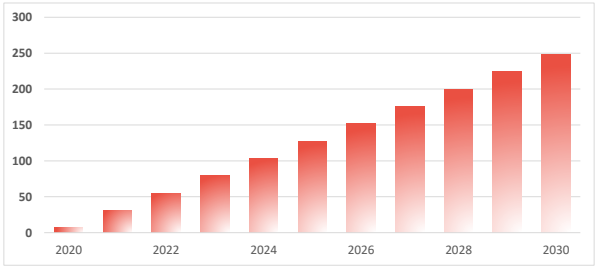
**Upper middle income*

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

Costs per year



Projected lives saved per year



MONTENEGRO

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	8.5
# of mammographs[a]	2020	63.4
# of CT scanners[a]	2020	50.7
# of MRI scanners[a]	2020	21.1
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] 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[a]	2019	25.4
# of medical physicist[a]	2019	4.2
# of surgeons[a]	n/a	n/a
# of radiologist[a]	2019	211.3
# of nuclear medicine physician[a]	2019	16.9
# of medical & pathology lab scientists[a]	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	don't know
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	4.2
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	1583

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

GLOBAL INITIATIVES

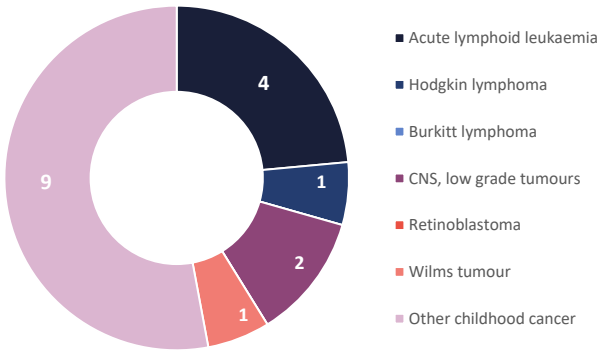
Elimination of Cervical Cancer

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	17
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

MONGOLIA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

3,225,166

Total # cancer cases (2018)	Total # cancer deaths (2018)
5,591	3,984

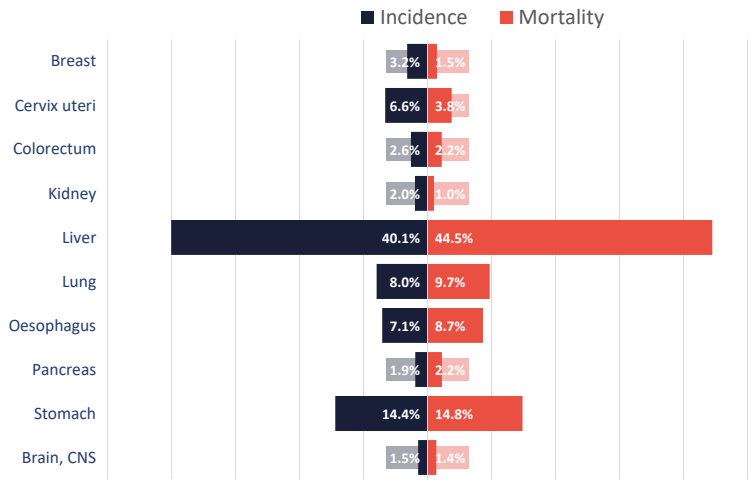
Premature deaths from NCDs (2016)

8,361

Cancer as % of NCD premature deaths (2016)

31.6%

Most common cancer cases (2018)



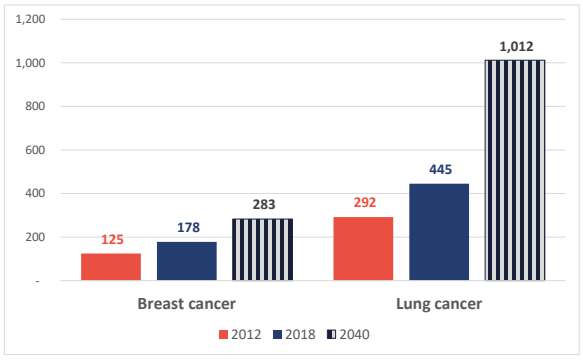
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
19.4%	8.2%	49.8%	1.3%	n/a	1.0%

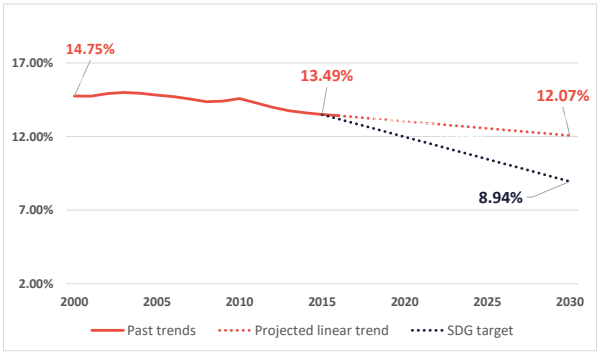
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

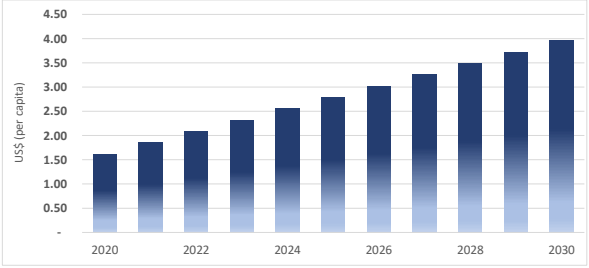


INVESTMENT CASE (2019)

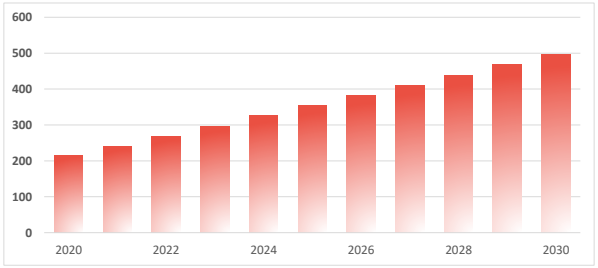
**Lower middle income*

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

Costs per year



Projected lives saved per year



MONGOLIA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	8.9
# of mammographs[a]	2020	10.7
# of CT scanners[a]	2020	44.7
# of MRI scanners[a]	2020	7.2
# of PET or PET/CT scanners[a]	2020	1.8

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	7.2
# of surgeons[a]	2014	731.5
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	5.4
# of medical & pathology lab scientists[a]	2016	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	55.4
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 available
Availability of opioids* for pain management	2015-2017	134

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

GLOBAL INITIATIVES

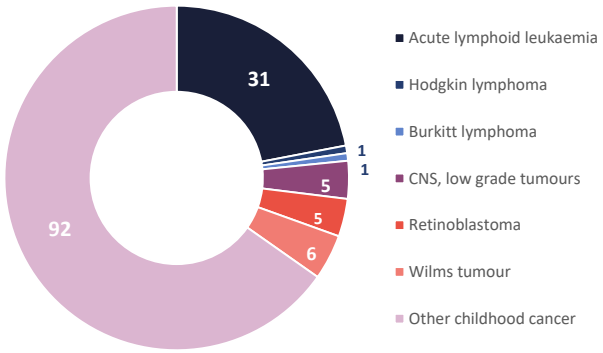
Elimination of Cervical Cancer

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	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	141
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

MOZAMBIQUE

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

30,366,043

Total # cancer cases (2018)	Total # cancer deaths (2018)
25,631	17,813

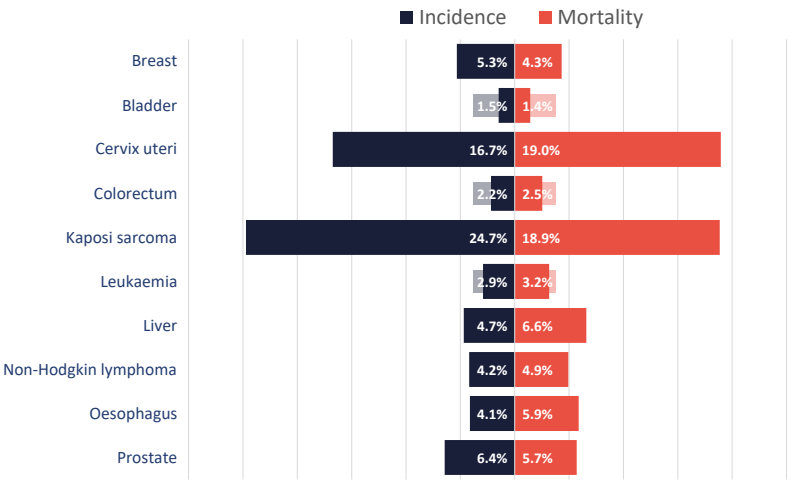
Premature deaths from NCDs (2016)

28,026

Cancer as % of NCD premature deaths (2016)

47.3%

Most common cancer cases (2018)



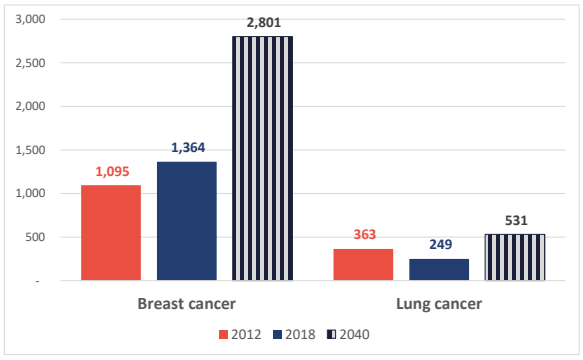
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
11.3%	1.5%	52.5%	0.6%	50.1%	0.7%

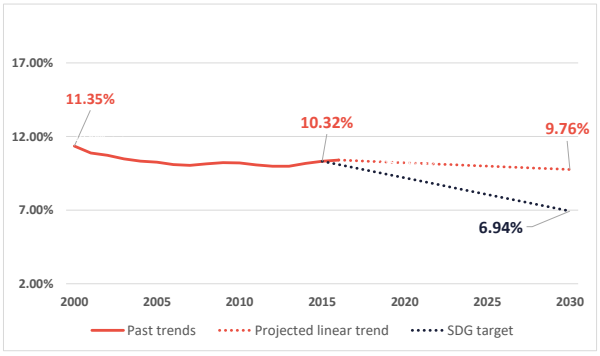
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

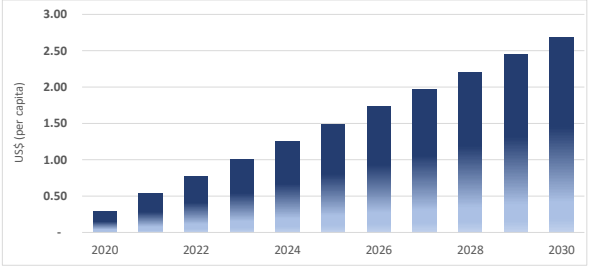


INVESTMENT CASE (2019)

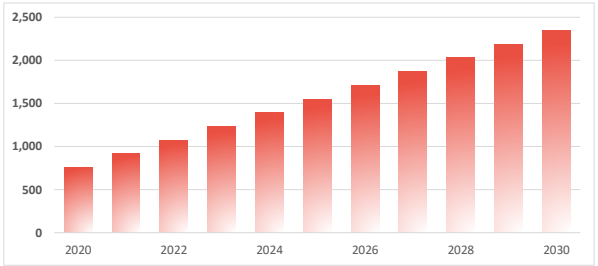
**Low income*

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

Costs per year



Projected lives saved per year



MOZAMBIQUE

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	0.4
# of mammographs[a]	2020	1.6
# of CT scanners[a]	2020	1.6
# of MRI scanners[a]	2020	0.4
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] 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[a]	2019	1.2
# of medical physicist[a]	2019	0.8
# of surgeons[a]	2013	72.6
# of radiologist[a]	2019	2.0
# of nuclear medicine physician[a]	2019	0.0
# of medical & pathology lab scientists[a]	2017	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	yes
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3
Breast cancer screening program	2019	yes
Breast cancer screening program: Starting age, target population	2019	15

# Public cancer centres per 10,000 cancer patients	2019	0.4
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 not available
Palliative care availability: community/home-based care	2019	generally not available
Availability of opioids* for pain management	2015-2017	8

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

GLOBAL INITIATIVES

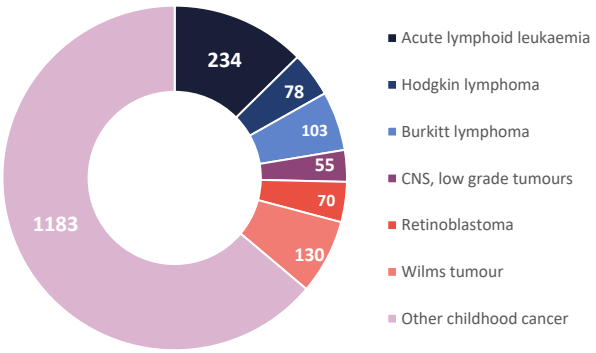
Elimination of Cervical Cancer

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	>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	1853
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

MAURITANIA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

4,525,698

Total # cancer cases (2018)	Total # cancer deaths (2018)
2,733	1,933

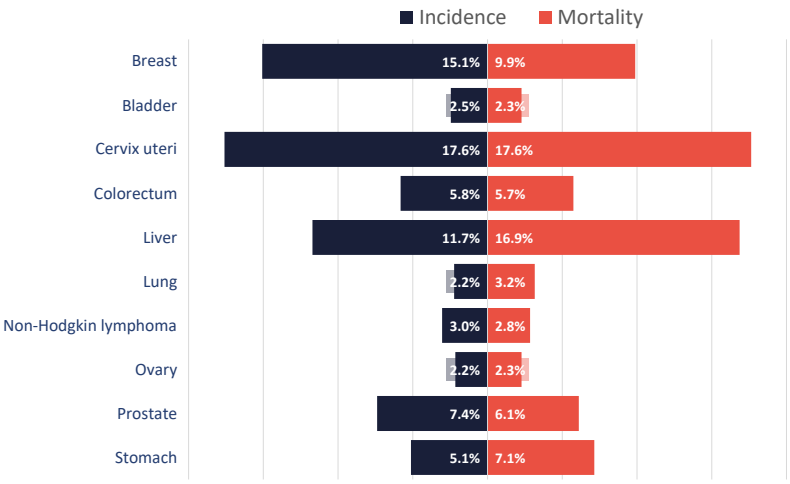
Premature deaths from NCDs (2016)

5,173

Cancer as % of NCD premature deaths (2016)

20.6%

Most common cancer cases (2018)



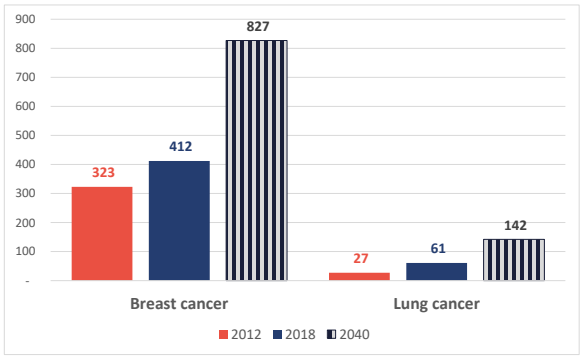
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
6.9%	0.8%	34.6%	2.0%	15.6%	0.6%

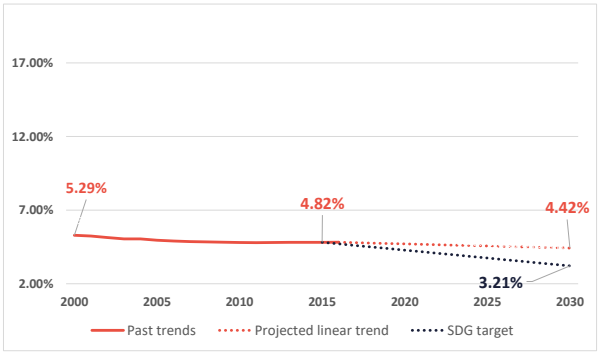
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

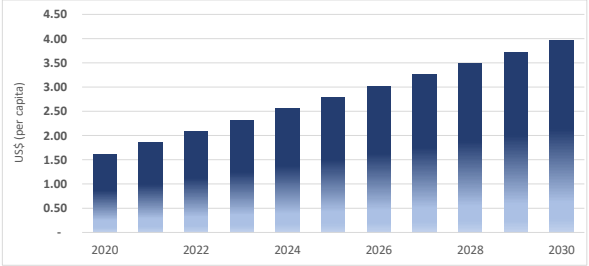


INVESTMENT CASE (2019)

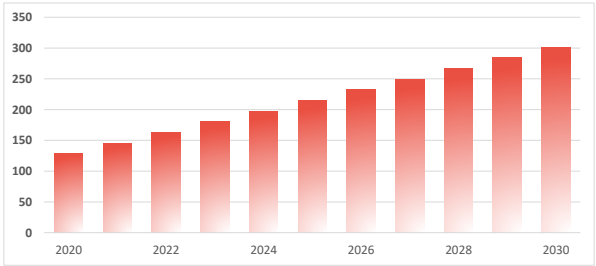
**Lower middle income*

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

Costs per year



Projected lives saved per year



MAURITANIA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	7.3
# of mammographs[a]	2020	32.9
# of CT scanners[a]	2020	58.5
# of MRI scanners[a]	2020	14.6
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	n/a	n/a
# of radiologist[a]	2019	124.4
# of nuclear medicine physician[a]	2019	0.0
# of medical & pathology lab scientists[a]	2009	256.1

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	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	3.7
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	0

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

GLOBAL INITIATIVES

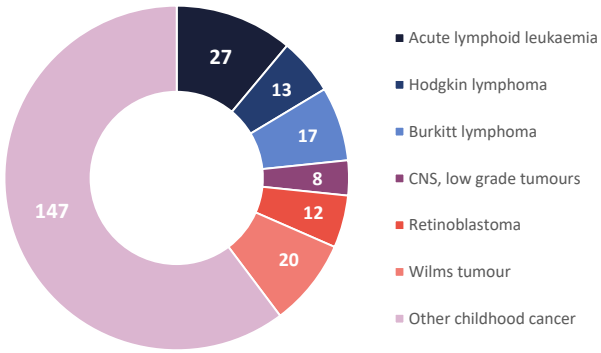
Elimination of Cervical Cancer

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	no

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	244
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

MAURITIUS

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

1,269,670

Total # cancer cases (2018)	Total # cancer deaths (2018)
2,861	1,377

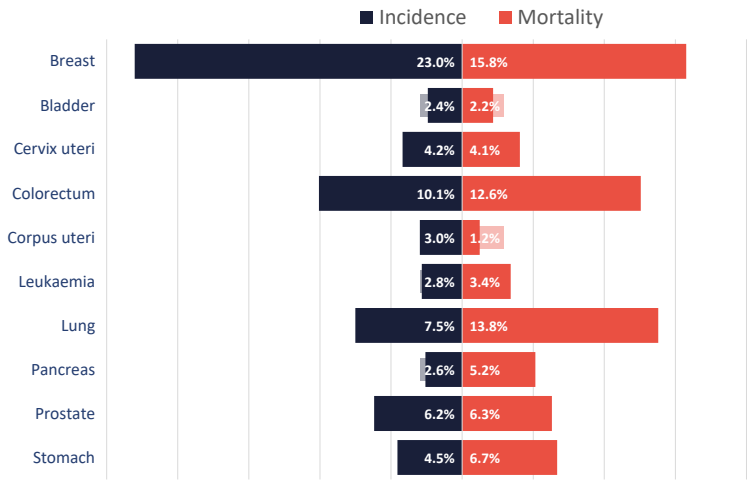
Premature deaths from NCDs (2016)

4,200

Cancer as % of NCD premature deaths (2016)

16.9%

Most common cancer cases (2018)



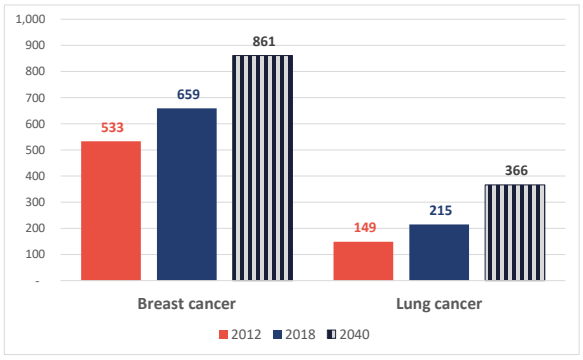
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
18.7%	6.1%	13.1%	5.2%	n/a	1.3%

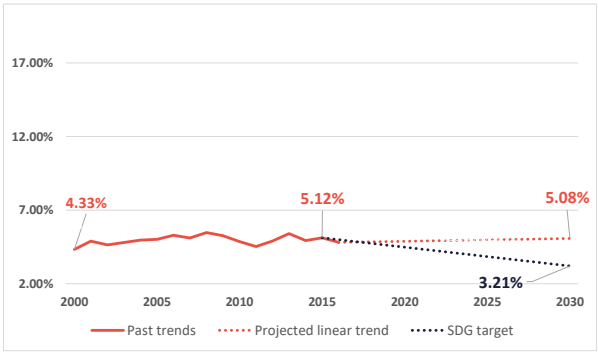
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

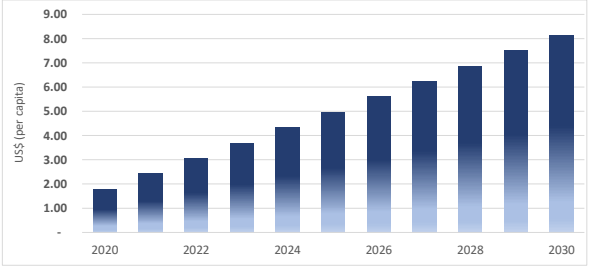


INVESTMENT CASE (2019)

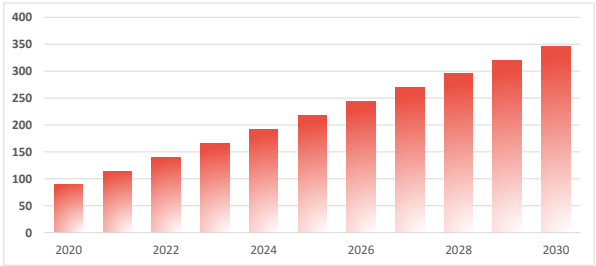
**Upper middle income*

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

Costs per year



Projected lives saved per year



MAURITIUS

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	10.5
# of mammographs[a]	2020	24.5
# of CT scanners[a]	2020	28.0
# of MRI scanners[a]	2020	21.0
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	17.5
# of surgeons[a]	2014	307.6
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	7.0
# of medical & pathology lab scientists[a]	2011	3.5

FORMULATING RESPONSE

Integrated NCD plan	2019	n/a
NCCP (including cancer types)	2019	under development
MPOWER measures fully implemented and achieved	2018	3
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	3.5
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	124

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

GLOBAL INITIATIVES

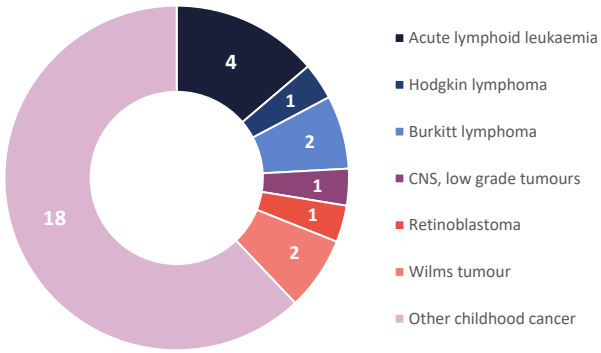
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	80.8
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	no
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	

Annual cancer cases (0-14 years old)



MALAWI

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

18,628,749

Total # cancer cases (2018)	Total # cancer deaths (2018)
19,767	13,779

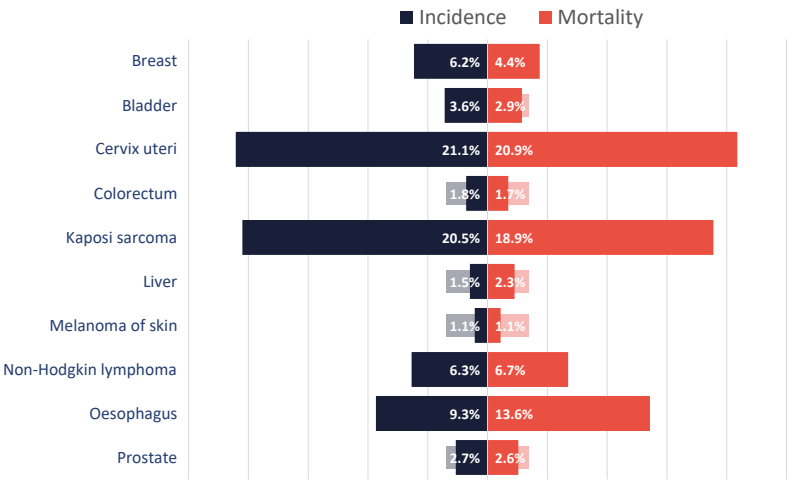
Premature deaths from NCDs (2016)

13,838

Cancer as % of NCD premature deaths (2016)

47.6%

Most common cancer cases (2018)



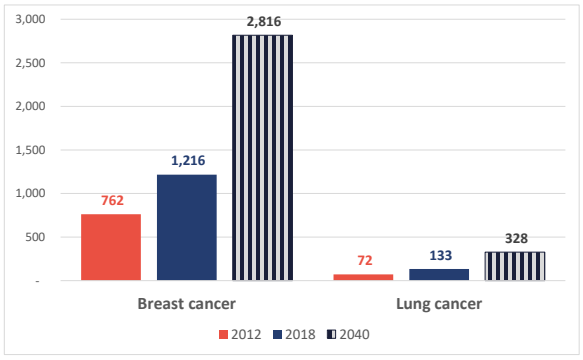
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
8.6%	3.8%	49.8%	0.4%	41.8%	0.4%

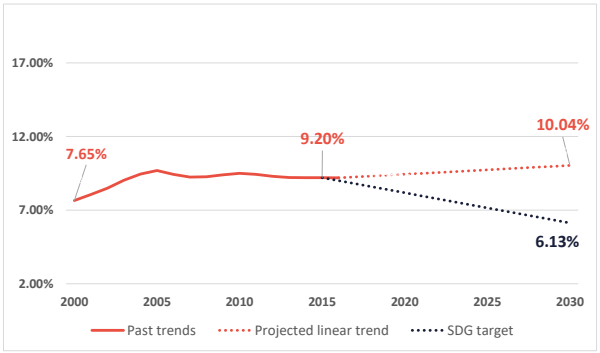
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

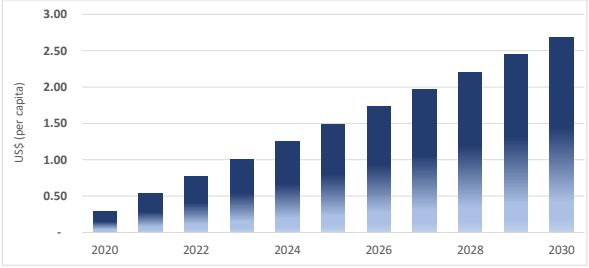


INVESTMENT CASE (2019)

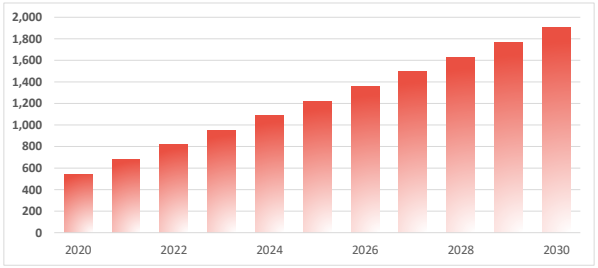
**Low income*

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

Costs per year



Projected lives saved per year



MALAWI

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	0.0
# of mammographs[a]	2020	2.5
# of CT scanners[a]	2020	3.5
# of MRI scanners[a]	2020	0.5
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	30.9
# of radiologist[a]	2019	1.0
# of nuclear medicine physician[a]	2019	0.0
# of medical & pathology lab scientists[a]	2016	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	n/a
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	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 not 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	88

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

GLOBAL INITIATIVES

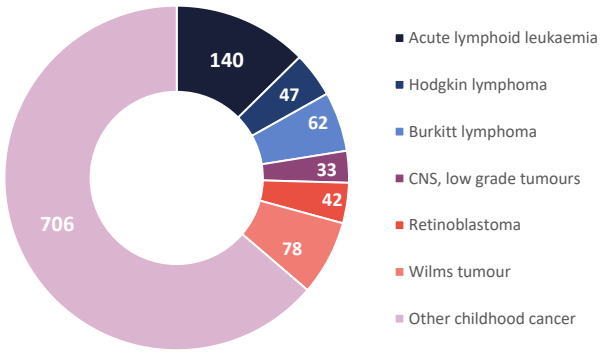
Elimination of Cervical Cancer

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	1108
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

MALAYSIA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

31,949,789

Total # cancer cases (2018)	Total # cancer deaths (2018)
43,837	26,395

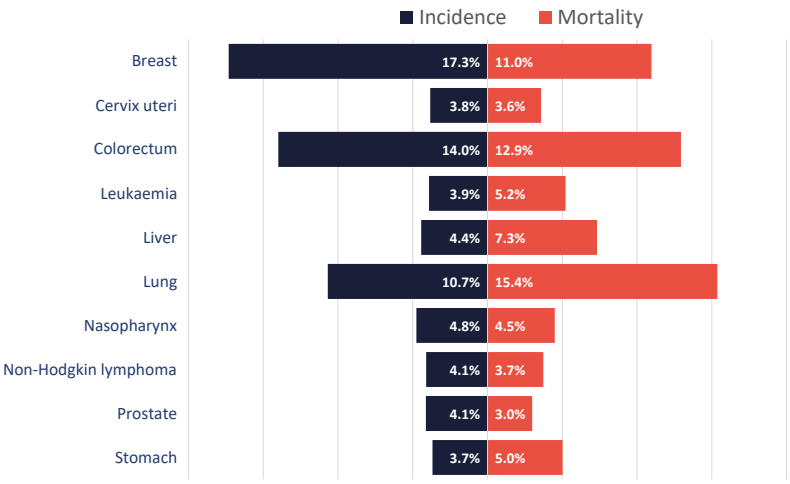
Premature deaths from NCDs (2016)

50,436

Cancer as % of NCD premature deaths (2016)

32.0%

Most common cancer cases (2018)



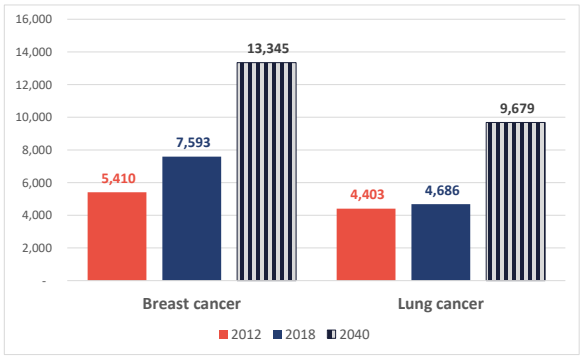
PAFs (population attributable fractions)

20.8%	2.2%	19.6%	3.2%	0.9%	2.1%
Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]

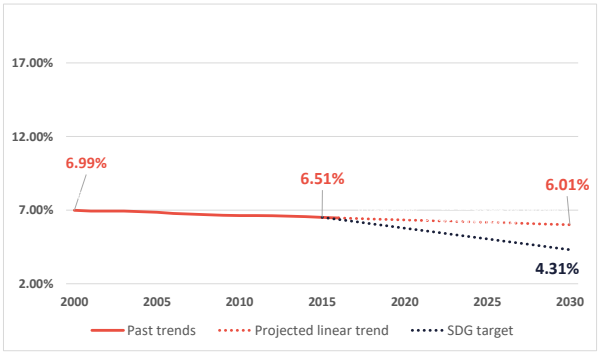
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

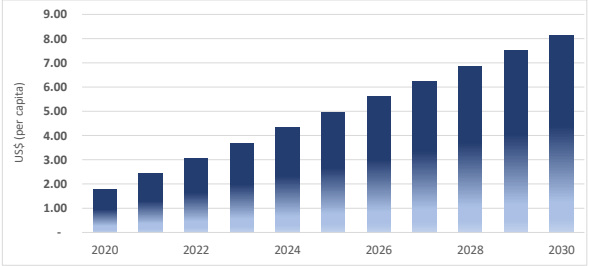


INVESTMENT CASE (2019)

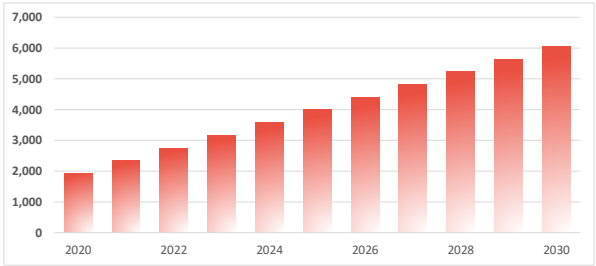
**Upper middle income*

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

Costs per year



Projected lives saved per year



MALAYSIA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	12.3
# of mammographs[a]	2020	44.3
# of CT scanners[a]	2020	46.3
# of MRI scanners[a]	2020	21.0
# of PET or PET/CT scanners[a]	2020	3.6

WORKFORCE

[a] 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[a]	2019	3.0
# of medical physicist[a]	2019	65.2
# of surgeons[a]	2011	448.7
# of radiologist[a]	2019	114.1
# of nuclear medicine physician[a]	2019	114.1
# of medical & pathology lab scientists[a]	2015	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	20

# Public cancer centres per 10,000 cancer patients	2019	1.8
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	172

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

GLOBAL INITIATIVES

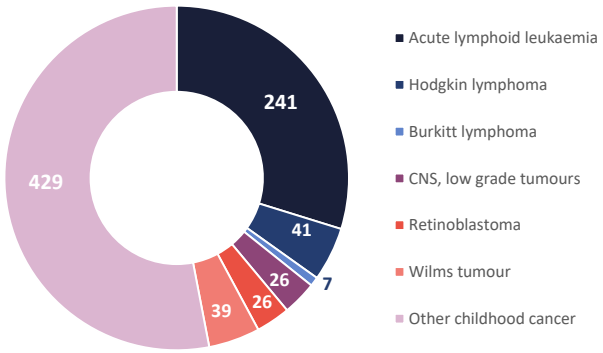
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	83.4
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	809
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

NAMIBIA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

2,494,524

Total # cancer cases (2018)	Total # cancer deaths (2018)
2,200	1,238

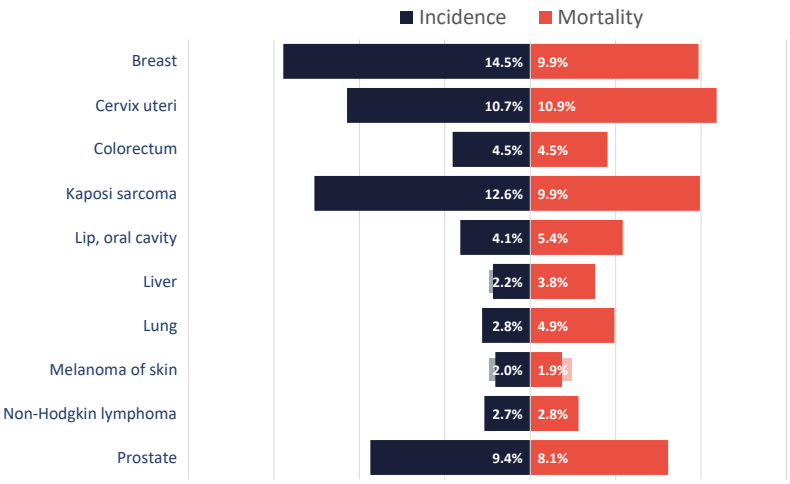
Premature deaths from NCDs (2016)

3,260

Cancer as % of NCD premature deaths (2016)

19.6%

Most common cancer cases (2018)



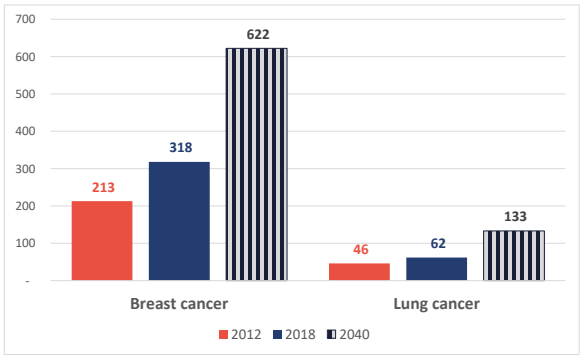
PAFs (population attributable fractions)

13.0%	5.9%	26.9%	1.9%	45.6%	2.5%
Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]

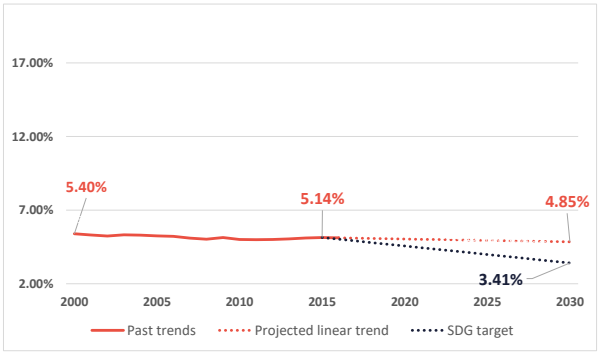
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

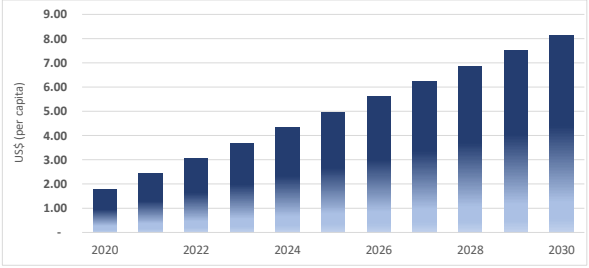


INVESTMENT CASE (2019)

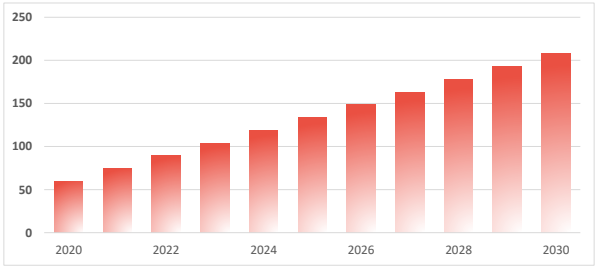
**Upper middle income*

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

Costs per year



Projected lives saved per year



NAMIBIA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	9.1
# of mammographs[a]	2020	22.7
# of CT scanners[a]	2020	54.5
# of MRI scanners[a]	2020	9.1
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	27.3
# of surgeons[a]	2013	377.3
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	18.2
# of medical & pathology lab scientists[a]	2004	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	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	9.1
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	296

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

GLOBAL INITIATIVES

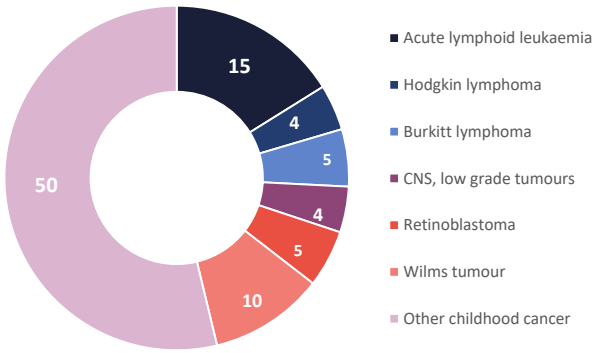
Elimination of Cervical Cancer

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	93
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

NIGER

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

23,310,719

Total # cancer cases (2018)	Total # cancer deaths (2018)
8,674	7,115

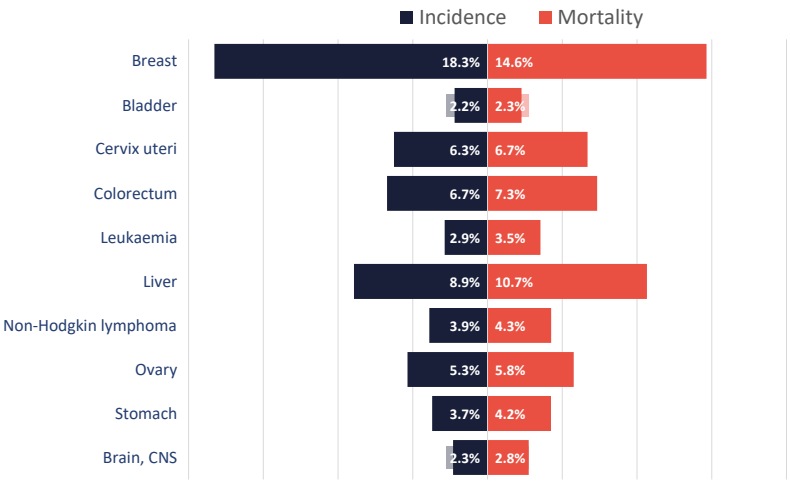
Premature deaths from NCDs (2016)

23,111

Cancer as % of NCD premature deaths (2016)

17.2%

Most common cancer cases (2018)



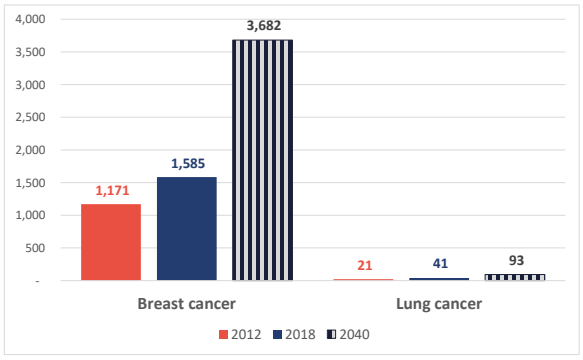
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
4.5%	1.2%	19.8%	0.9%	27.6%	0.5%

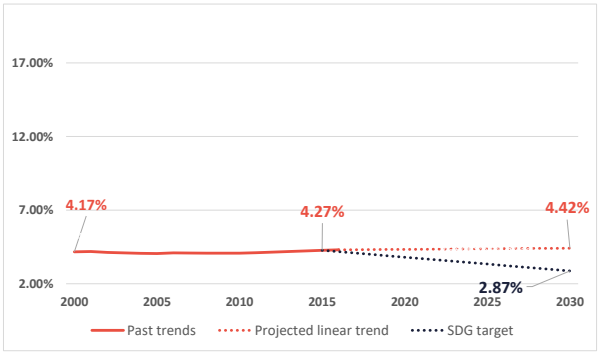
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

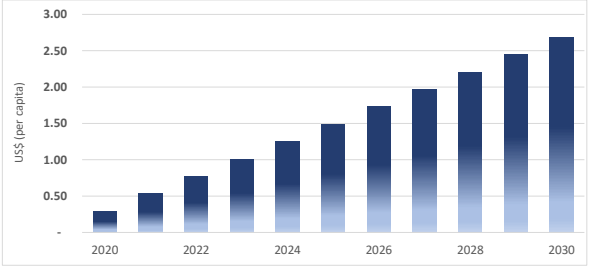


INVESTMENT CASE (2019)

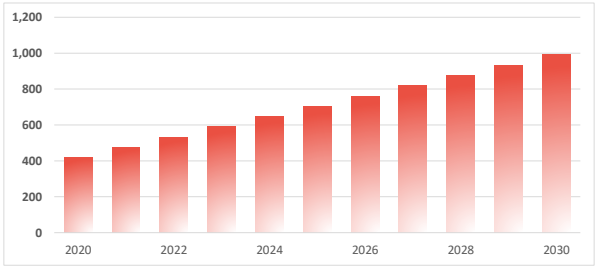
**Low income*

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

Costs per year



Projected lives saved per year



NIGER

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	1.2
# of mammographs[a]	2020	10.4
# of CT scanners[a]	2020	4.6
# of MRI scanners[a]	2020	0.0
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	2.3
# of surgeons[a]	2014	35.7
# of radiologist[a]	2019	2.3
# of nuclear medicine physician[a]	2019	2.3
# of medical & pathology lab scientists[a]	2009	425.4

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	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	1.2
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

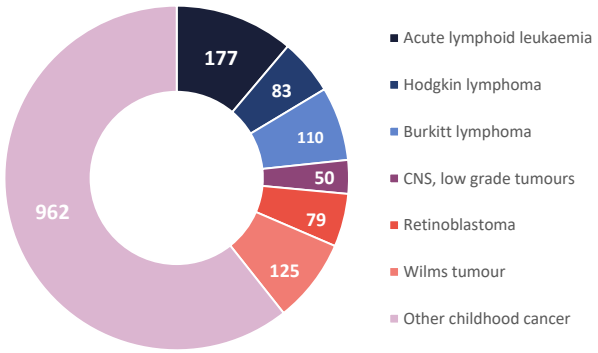
Elimination of Cervical Cancer

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	1586
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

NIGERIA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

200,963,603

Total # cancer cases (2018)	Total # cancer deaths (2018)
115,950	70,327

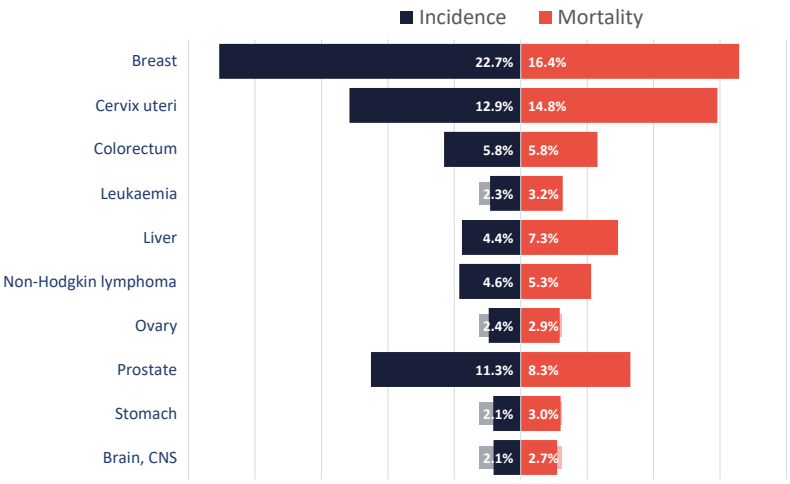
Premature deaths from NCDs (2016)

289,701

Cancer as % of NCD premature deaths (2016)

18.2%

Most common cancer cases (2018)



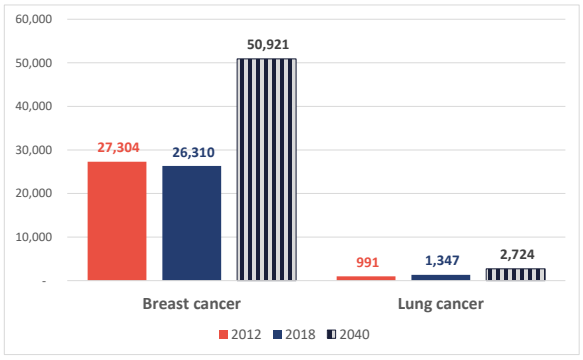
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
3.6%	6.6%	28.5%	1.5%	9.6%	0.4%

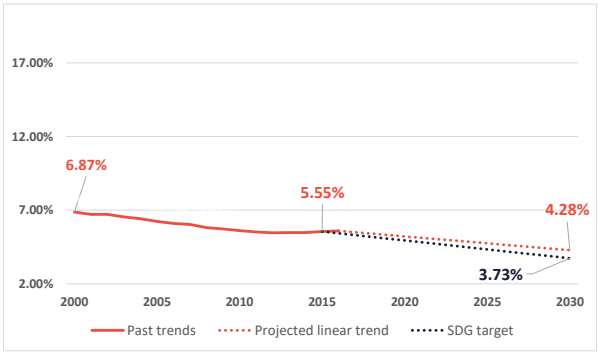
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

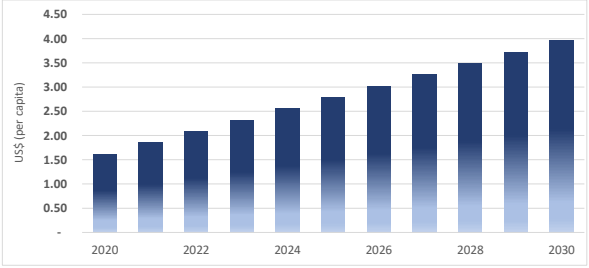


INVESTMENT CASE (2019)

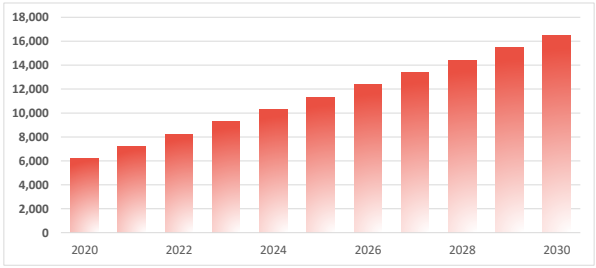
**Lower middle income*

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

Costs per year



Projected lives saved per year



NIGERIA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	0.5
# of mammographs[a]	2020	8.6
# of CT scanners[a]	2020	15.8
# of MRI scanners[a]	2020	5.0
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] *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[a]	2019	6.0
# of medical physicist[a]	2019	8.6
# of surgeons[a]	2014	157.6
# of radiologist[a]	2019	30.2
# of nuclear medicine physician[a]	2019	0.3
# of medical & pathology lab scientists[a]	2008	1095.6

FORMULATING RESPONSE

Integrated NCD plan	2019	under development
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	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 (S-DDD) per million inhabitants per day*

GLOBAL INITIATIVES

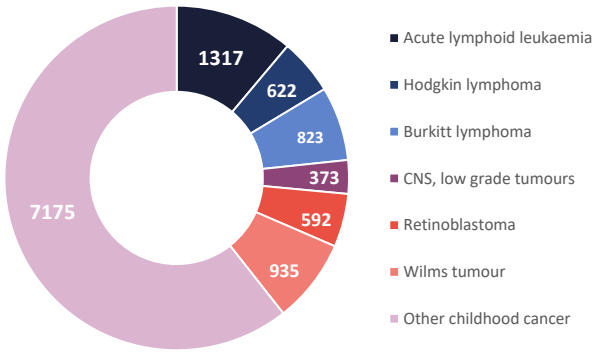
Elimination of Cervical Cancer

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	11837
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

NICARAGUA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

6,545,503

Total # cancer cases (2018)	Total # cancer deaths (2018)
7,956	4,554

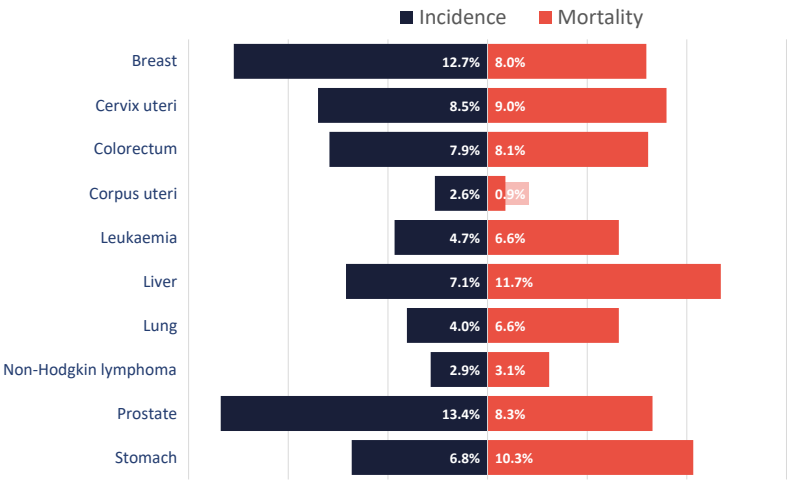
Premature deaths from NCDs (2016)

9,628

Cancer as % of NCD premature deaths (2016)

22.8%

Most common cancer cases (2018)



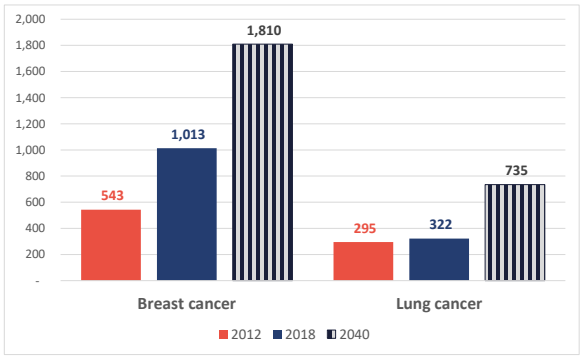
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
11.9%	4.1%	32.3%	3.6%	21.6%	0.8%

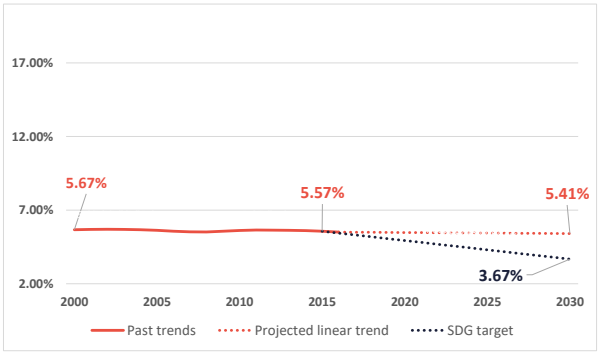
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

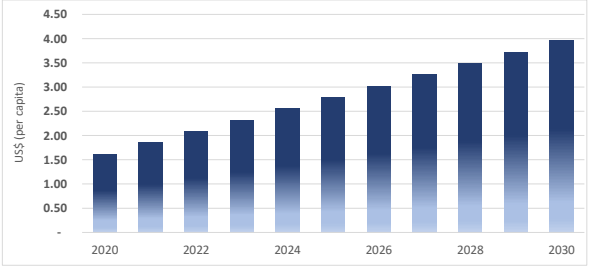


INVESTMENT CASE (2019)

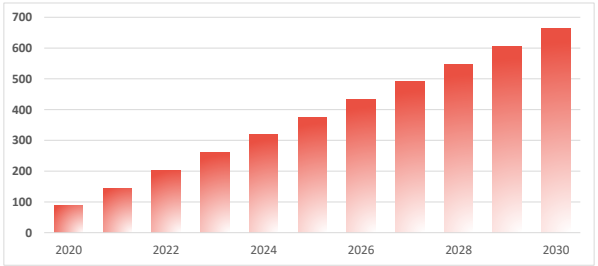
**Lower middle income*

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

Costs per year



Projected lives saved per year



NICARAGUA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	3.8
# of mammographs[a]	2020	35.2
# of CT scanners[a]	2020	30.2
# of MRI scanners[a]	2020	15.1
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] 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[a]	2019	7.5
# of medical physicist[a]	2019	11.3
# of surgeons[a]	2014	658.6
# of radiologist[a]	2019	377.1
# of nuclear medicine physician[a]	2019	2.5
# of medical & pathology lab scientists[a]	2018	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	n/a
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	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	5.0
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	59

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

GLOBAL INITIATIVES

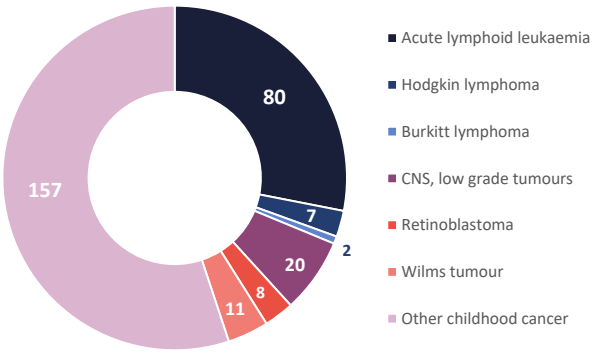
Elimination of Cervical Cancer

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	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	285
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

NIUE

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

1,614

Total # cancer cases (2018)	Total # cancer deaths (2018)
n/a	n/a

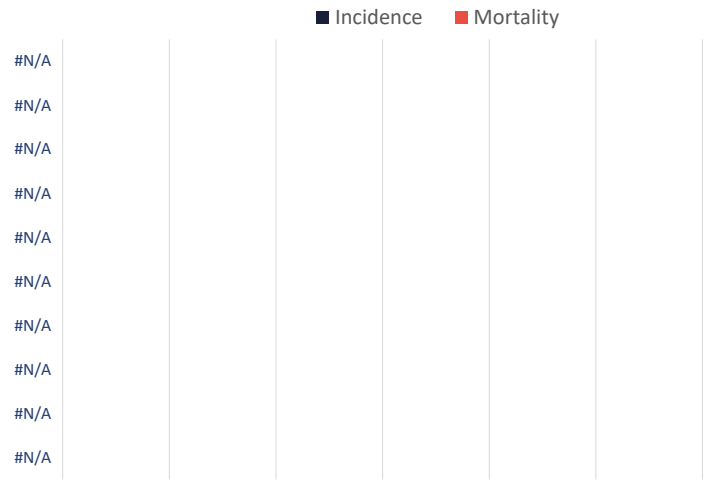
Premature deaths from NCDs (2016)

n/a

Cancer as % of NCD premature deaths (2016)

n/a

Most common cancer cases (2018)



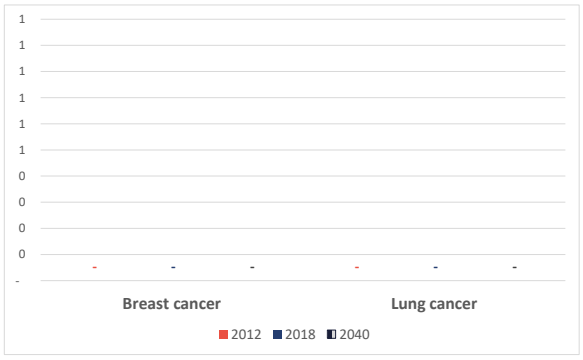
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
n/a	n/a	n/a	n/a	n/a	n/a

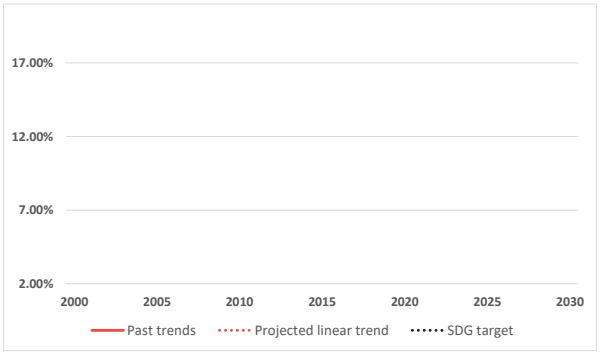
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

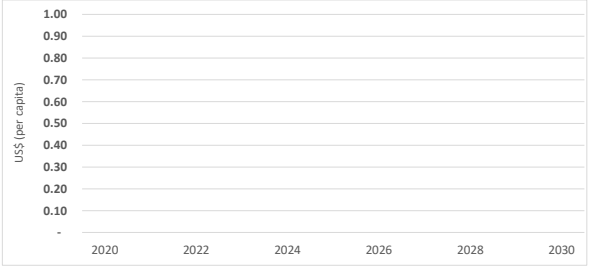


INVESTMENT CASE (2019)

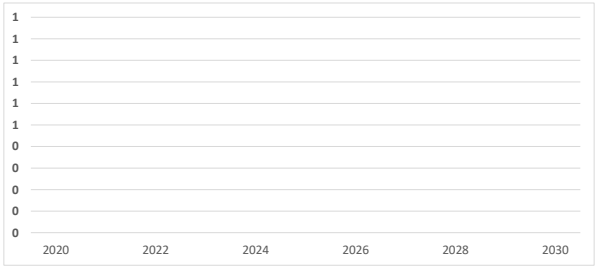
**Not Classified*

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

Costs per year



Projected lives saved per year



NIUE

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	n/a
# of mammographs[a]	2020	n/a
# of CT scanners[a]	2020	n/a
# of MRI scanners[a]	2020	n/a
# of PET or PET/CT scanners[a]	2020	n/a

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	n/a
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	n/a
# of medical & pathology lab scientists[a]	2008	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	yes
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	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	209

**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	PAP smear
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	n/a
Early detection programme/guidelines	2019	no
Defined referral system	2019	yes

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

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

NETHERLANDS

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

17,097,123

Total # cancer cases (2018)	Total # cancer deaths (2018)
119,923	47,286

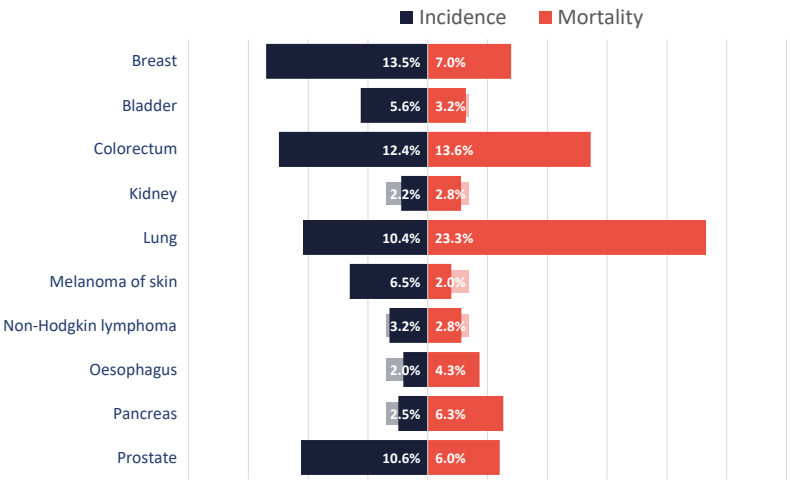
Premature deaths from NCDs (2016)

30,621

Cancer as % of NCD premature deaths (2016)

57.7%

Most common cancer cases (2018)



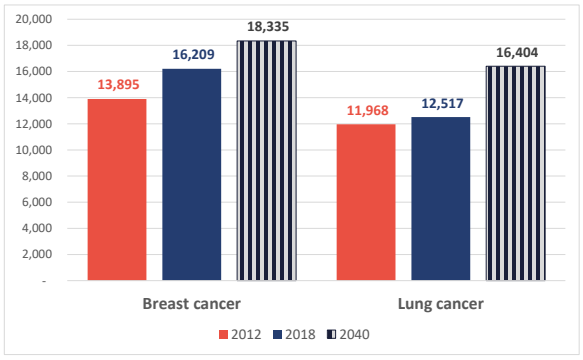
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
31.2%	6.8%	3.8%	5.4%	91.5%	9.7%

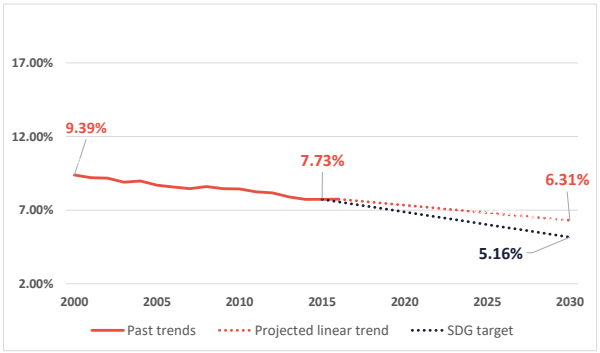
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

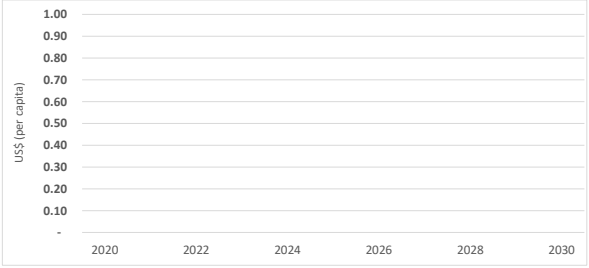


INVESTMENT CASE (2019)

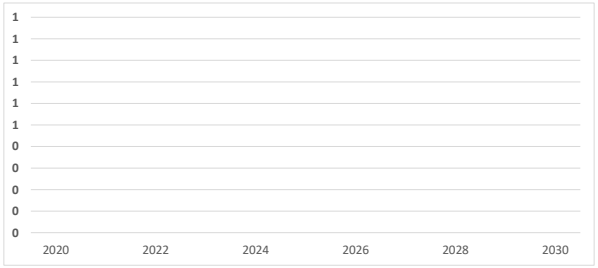
**High income*

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

Costs per year



Projected lives saved per year



NETHERLANDS

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	10.7
# of mammographs[a]	2020	5.3
# of CT scanners[a]	2020	21.7
# of MRI scanners[a]	2020	20.3
# of PET or PET/CT scanners[a]	2020	5.2

WORKFORCE

[a] 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[a]	2019	21.8
# of medical physicist[a]	2019	34.9
# of surgeons[a]	2013	459.8
# of radiologist[a]	2019	172.4
# of nuclear medicine physician[a]	2019	12.6
# of medical & pathology lab scientists[a]	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	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	0.3
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	13563

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

GLOBAL INITIATIVES

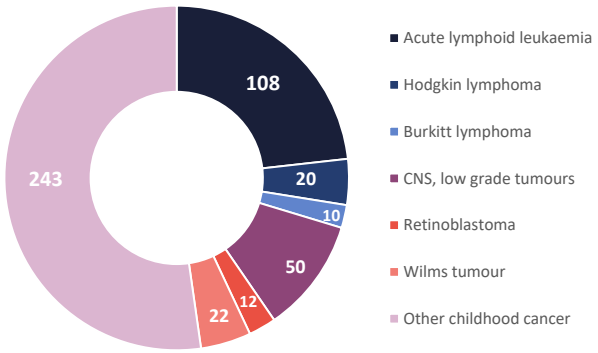
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	45.5
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	465
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Annual cancer cases (0-14 years old)



NORWAY

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

5,378,859

Total # cancer cases (2018)	Total # cancer deaths (2018)
34,299	11,791

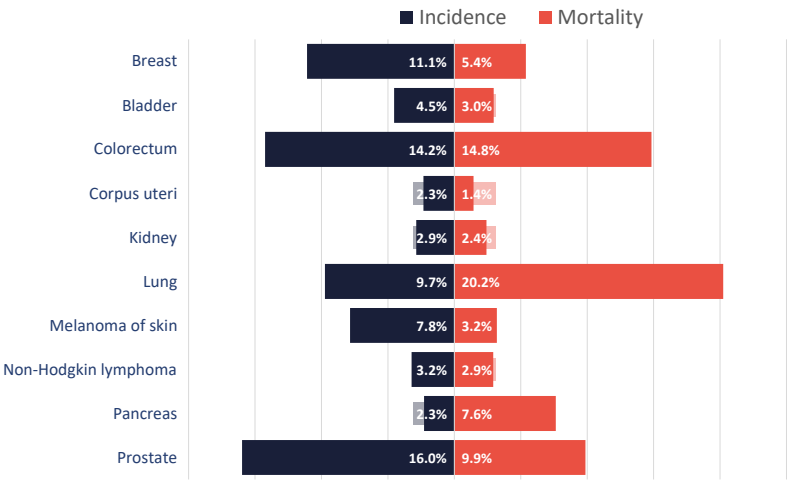
Premature deaths from NCDs (2016)

7,365

Cancer as % of NCD premature deaths (2016)

50.3%

Most common cancer cases (2018)



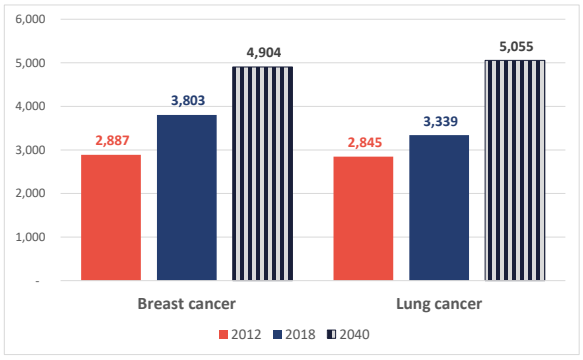
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
22.0%	5.1%	3.7%	4.6%	92.6%	5.4%

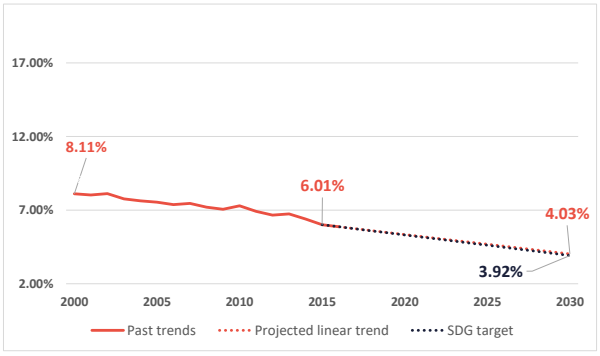
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

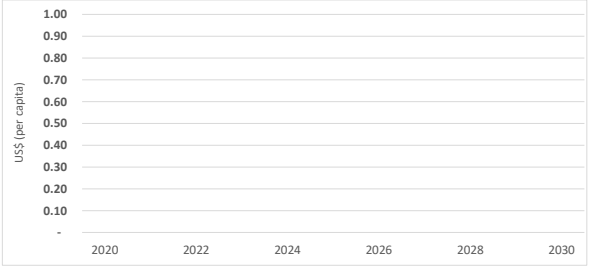


INVESTMENT CASE (2019)

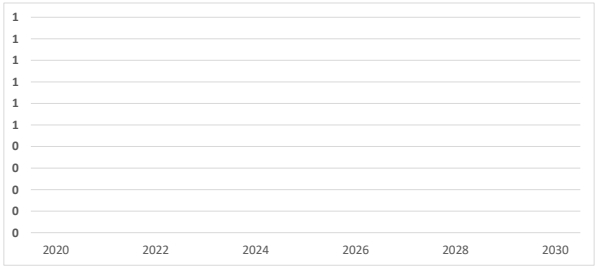
**High income*

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

Costs per year



Projected lives saved per year



NORWAY

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	12.5
# of mammographs[a]	2020	29.2
# of CT scanners[a]	2020	51.0
# of MRI scanners[a]	2020	45.8
# of PET or PET/CT scanners[a]	2020	2.3

WORKFORCE

[a] 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[a]	2019	42.0
# of medical physicist[a]	2019	54.2
# of surgeons[a]	2012	1093.6
# of radiologist[a]	2019	238.5
# of nuclear medicine physician[a]	2019	16.0
# of medical & pathology lab scientists[a]	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	don't know
# 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	generally available
Palliative care availability: community/home-based care	2019	generally available
Availability of opioids* for pain management	2015-2017	9875

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

GLOBAL INITIATIVES

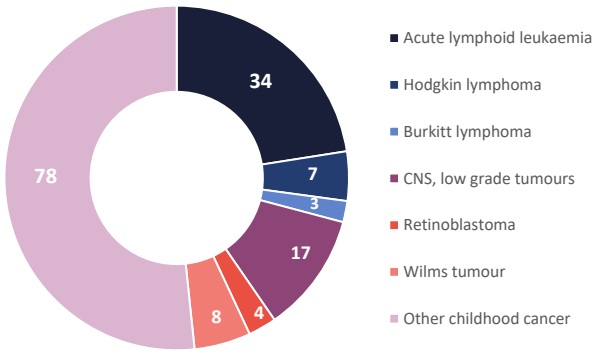
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	85.6
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	HPV test
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	151
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Annual cancer cases (0-14 years old)



NEPAL

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

28,608,715

Total # cancer cases (2018)	Total # cancer deaths (2018)
26,184	19,413

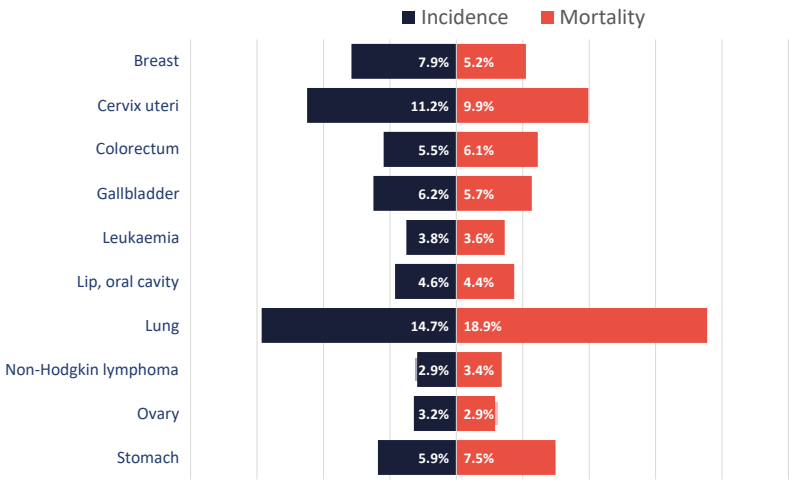
Premature deaths from NCDs (2016)

53,097

Cancer as % of NCD premature deaths (2016)

21.0%

Most common cancer cases (2018)



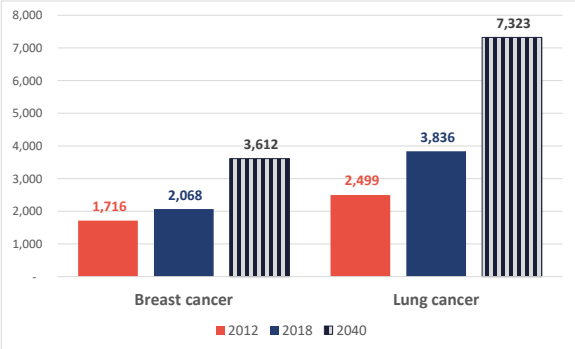
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
22.7%	3.2%	20.0%	0.4%	0.0%	1.7%

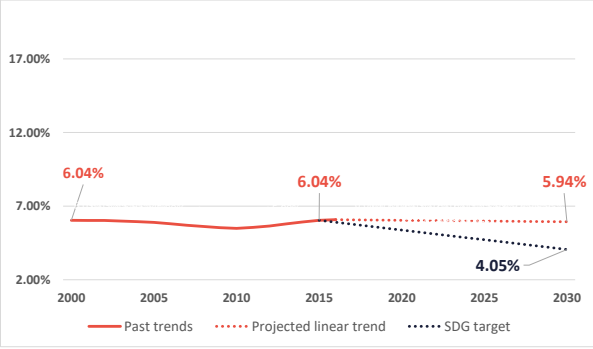
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

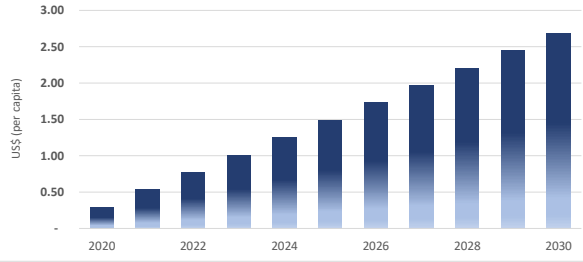


INVESTMENT CASE (2019)

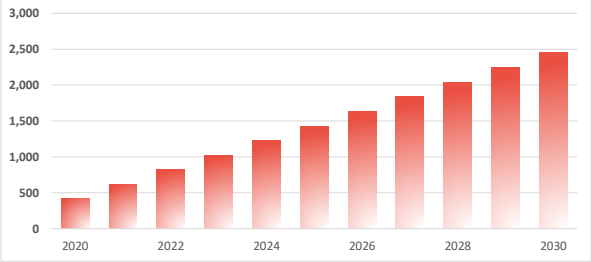
**Low income*

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

Costs per year



Projected lives saved per year



NEPAL

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	2.7
# of mammographs[a]	2020	0.8
# of CT scanners[a]	2020	3.8
# of MRI scanners[a]	2020	1.1
# of PET or PET/CT scanners[a]	2020	0.8

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	5.0
# of surgeons[a]	2014	97.0
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	0.8
# of medical & pathology lab scientists[a]	2004	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	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	1.1
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	generally not available
Palliative care availability: community/home-based care	2019	generally not available
Availability of opioids* for pain management	2015-2017	21

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

GLOBAL INITIATIVES

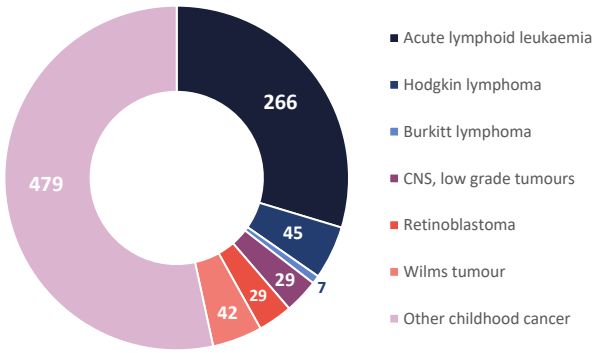
Elimination of Cervical Cancer

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	897
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

NAURU

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

10,764

Total # cancer cases (2018)	Total # cancer deaths (2018)
n/a	n/a

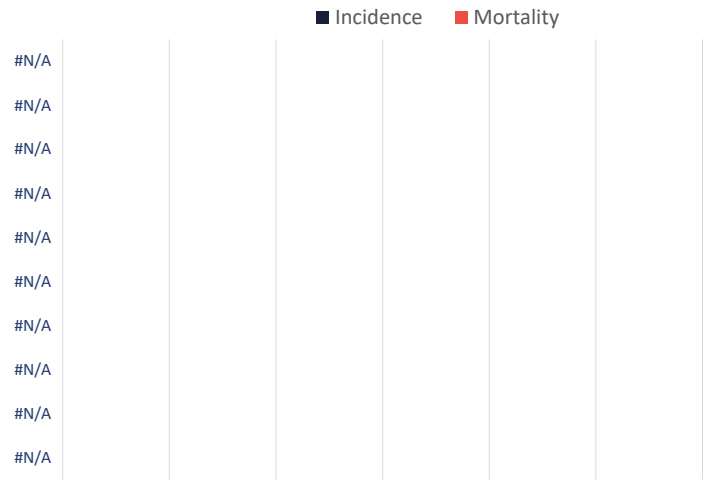
Premature deaths from NCDs (2016)

n/a

Cancer as % of NCD premature deaths (2016)

n/a

Most common cancer cases (2018)



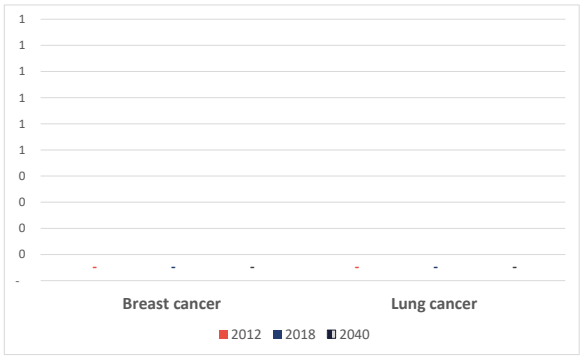
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
n/a	n/a	n/a	n/a	n/a	n/a

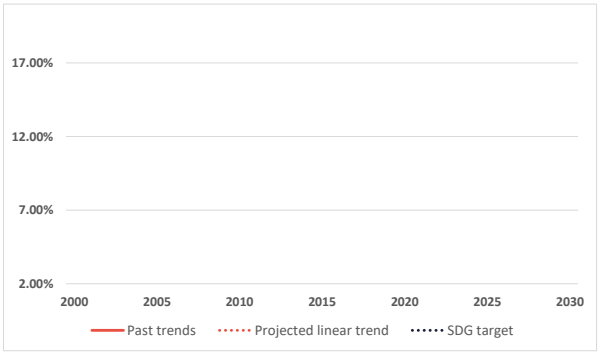
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

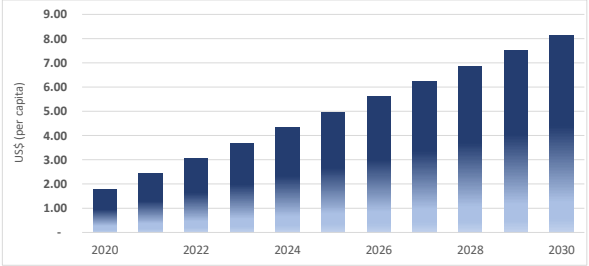


INVESTMENT CASE (2019)

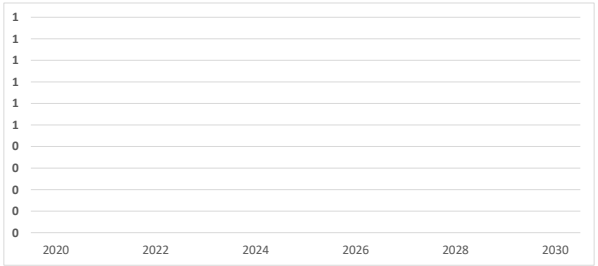
**Upper middle income*

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

Costs per year



Projected lives saved per year



NAURU

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	n/a
# of mammographs[a]	2020	n/a
# of CT scanners[a]	2020	n/a
# of MRI scanners[a]	2020	n/a
# of PET or PET/CT scanners[a]	2020	n/a

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	n/a
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	n/a
# of medical & pathology lab scientists[a]	2015	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	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	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	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	n/a
Early detection programme/guidelines	2019	no
Defined referral system	2019	don't know

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

NEW ZEALAND

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

4,783,062

Total # cancer cases (2018)	Total # cancer deaths (2018)
35,897	9,747

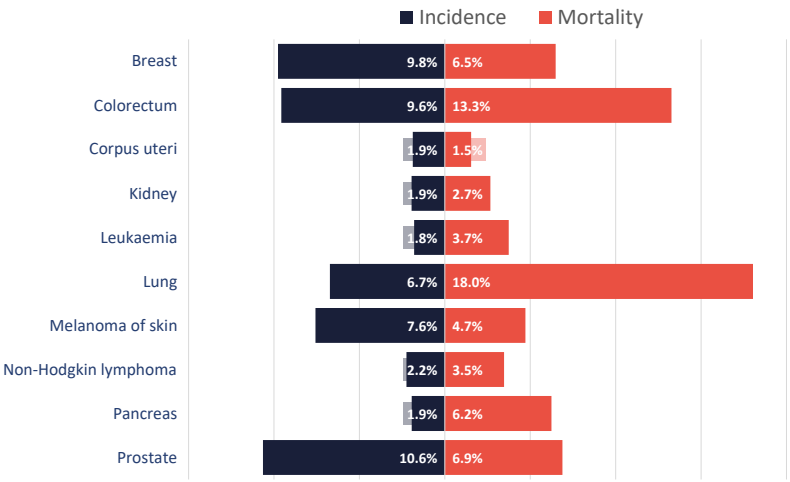
Premature deaths from NCDs (2016)

6,556

Cancer as % of NCD premature deaths (2016)

51.0%

Most common cancer cases (2018)



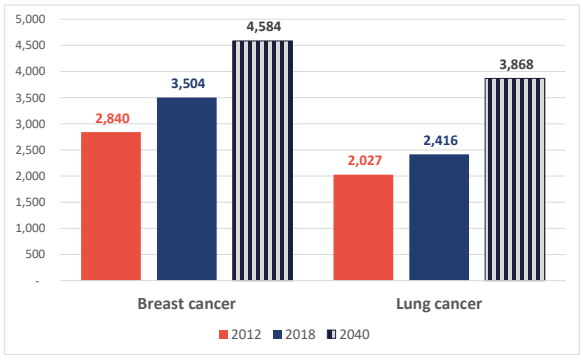
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
20.1%	6.6%	3.7%	5.6%	96.3%	6.6%

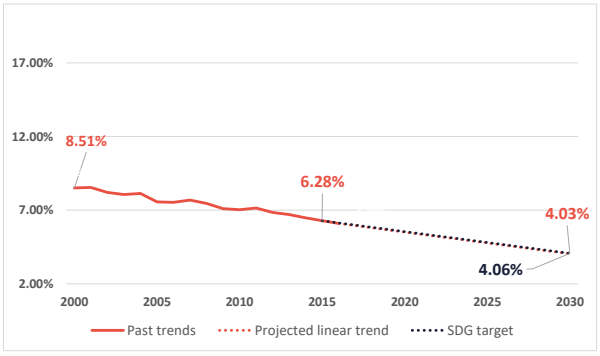
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

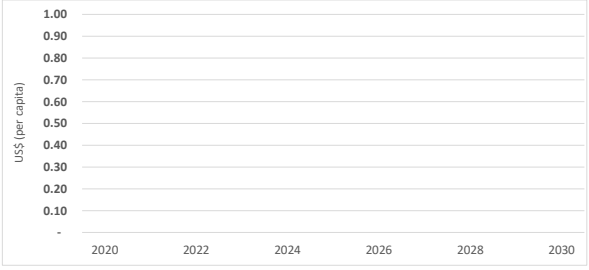


INVESTMENT CASE (2019)

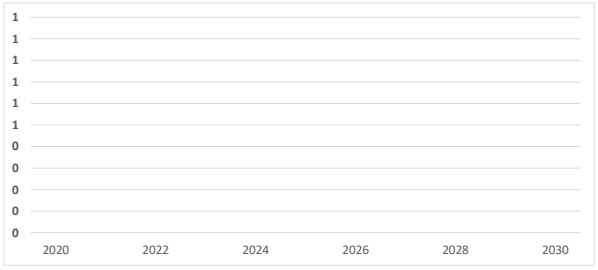
**High income*

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

Costs per year



Projected lives saved per year



NEW ZEALAND

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	7.5
# of mammographs[a]	2020	30.1
# of CT scanners[a]	2020	24.0
# of MRI scanners[a]	2020	18.1
# of PET or PET/CT scanners[a]	2020	1.4

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2015	238.5
# of radiologist[a]	2019	133.2
# of nuclear medicine physician[a]	2019	7.0
# of medical & pathology lab scientists[a]	2013	900.4

FORMULATING RESPONSE

Integrated NCD plan	2019	n/a
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	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	45

# Public cancer centres per 10,000 cancer patients	2019	1.7
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	4680

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

GLOBAL INITIATIVES

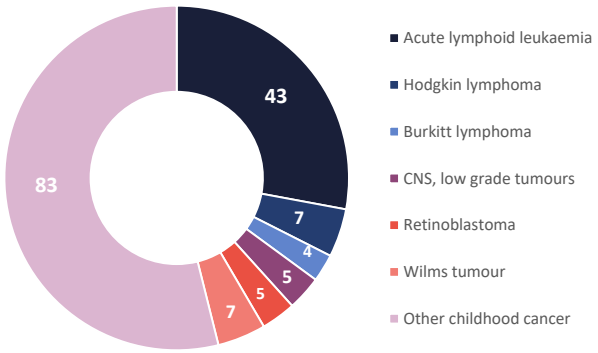
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	58
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	HPV test
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	154
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Annual cancer cases (0-14 years old)



OMAN

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

4,974,992

Total # cancer cases (2018)	Total # cancer deaths (2018)
3,322	1,681

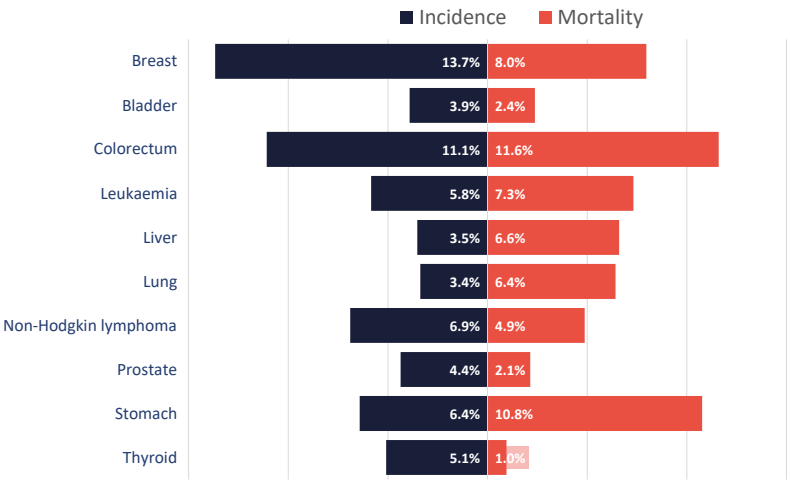
Premature deaths from NCDs (2016)

3,903

Cancer as % of NCD premature deaths (2016)

20.2%

Most common cancer cases (2018)



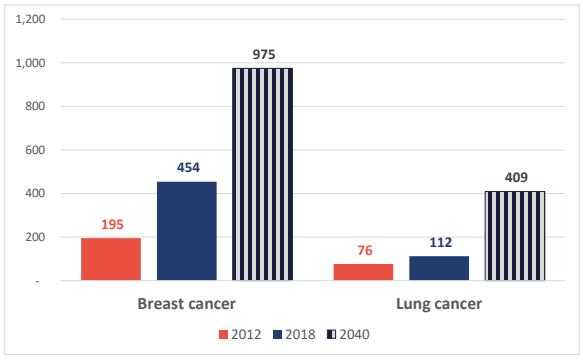
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
12.3%	1.9%	13.7%	3.8%	n/a	2.0%

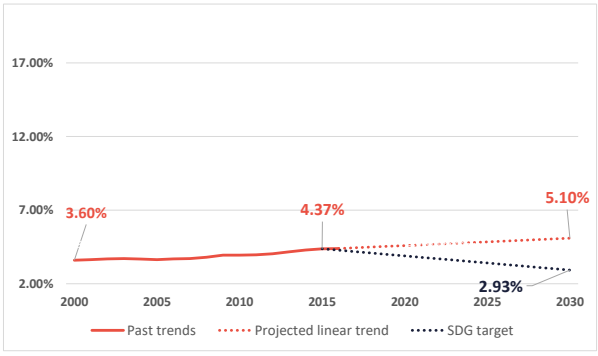
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

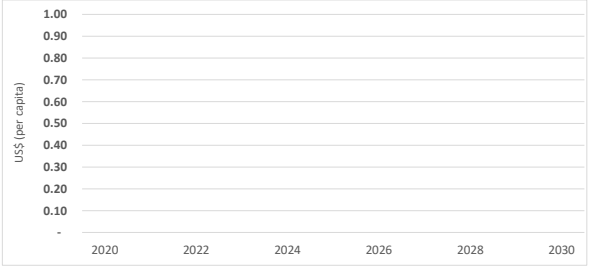


INVESTMENT CASE (2019)

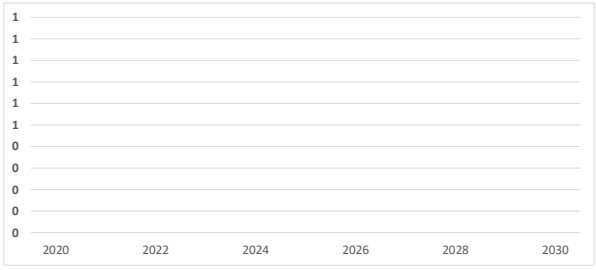
**High income*

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

Costs per year



Projected lives saved per year



OMAN

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	6.0
# of mammographs[a]	2020	45.2
# of CT scanners[a]	2020	138.5
# of MRI scanners[a]	2020	111.4
# of PET or PET/CT scanners[a]	2020	6.0

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	75.3
# of surgeons[a]	2013	1673.7
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	27.1
# of medical & pathology lab scientists[a]	2017	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	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	6.0
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 available
Availability of opioids* for pain management	2015-2017	140

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

GLOBAL INITIATIVES

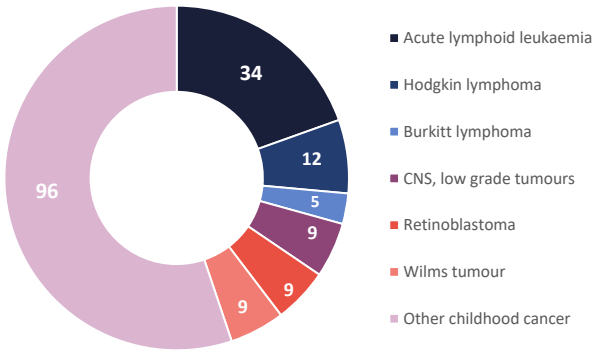
Elimination of Cervical Cancer

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	174
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

PAKISTAN

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

216,565,317

Total # cancer cases (2018)	Total # cancer deaths (2018)
173,937	118,442

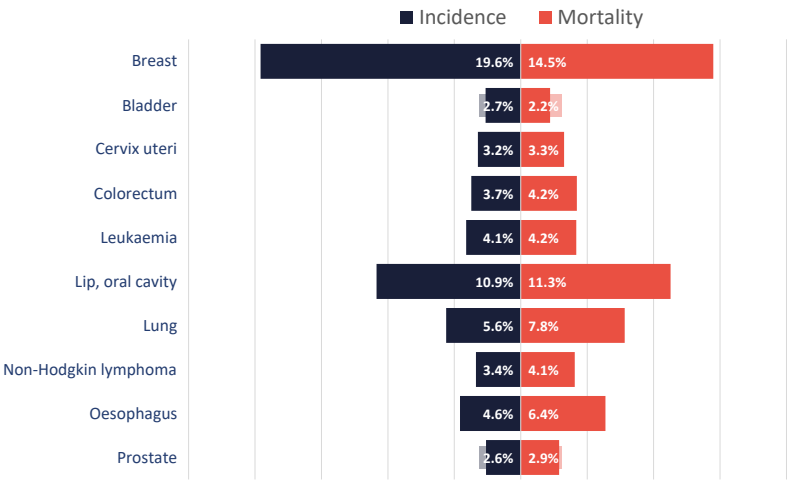
Premature deaths from NCDs (2016)

337,006

Cancer as % of NCD premature deaths (2016)

23.3%

Most common cancer cases (2018)



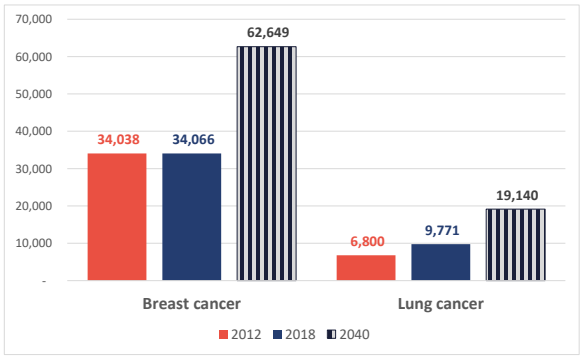
PAFs (population attributable fractions)

20.0%	0.9%	9.9%	1.7%	4.2%	1.2%
Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]

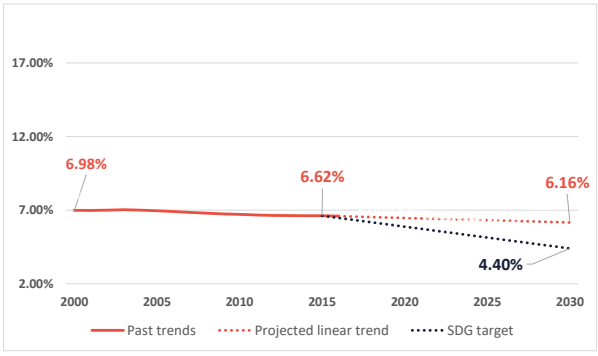
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

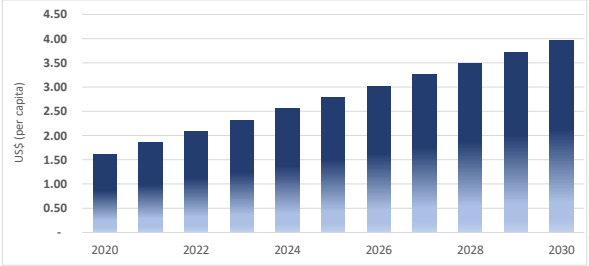


INVESTMENT CASE (2019)

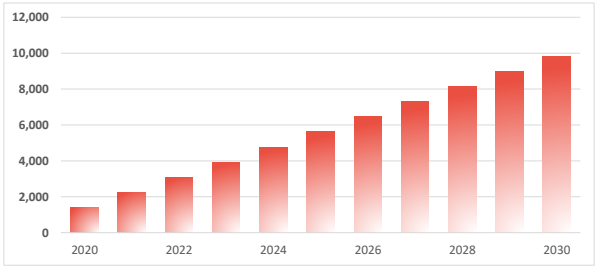
**Lower middle income*

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

Costs per year



Projected lives saved per year



PAKISTAN

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	3.3
# of mammographs[a]	2020	0.9
# of CT scanners[a]	2020	17.2
# of MRI scanners[a]	2020	4.6
# of PET or PET/CT scanners[a]	2020	0.3

WORKFORCE

[a] 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[a]	2019	1.8
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2012	128.7
# of radiologist[a]	2019	57.5
# of nuclear medicine physician[a]	2019	14.4
# of medical & pathology lab scientists[a]	2015	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	n/a
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	n/a
# 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 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

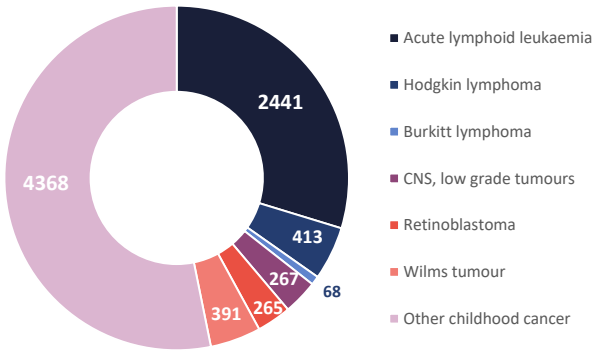
Elimination of Cervical Cancer

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	no

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	8213
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

PANAMA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

4,246,440

Total # cancer cases (2018)	Total # cancer deaths (2018)
8,244	3,829

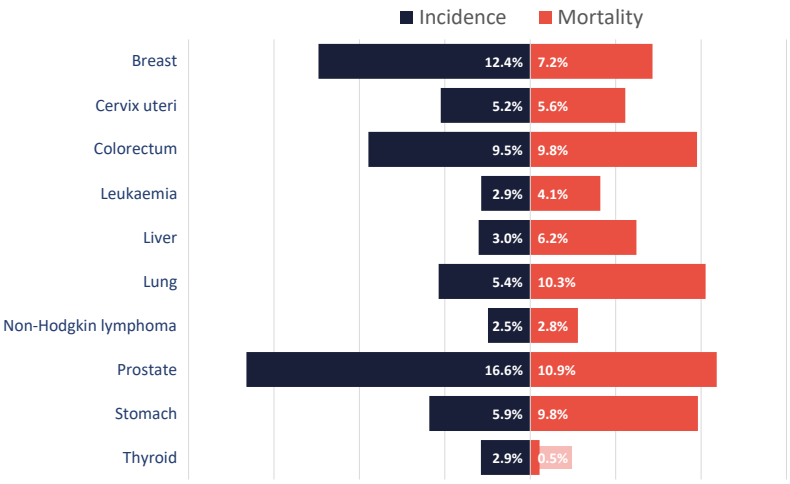
Premature deaths from NCDs (2016)

5,294

Cancer as % of NCD premature deaths (2016)

30.9%

Most common cancer cases (2018)



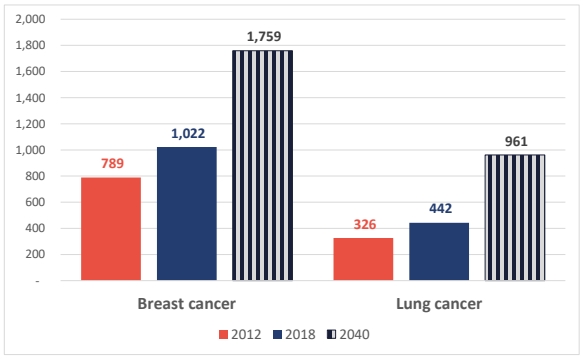
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
14.2%	4.6%	16.3%	4.0%	49.4%	1.3%

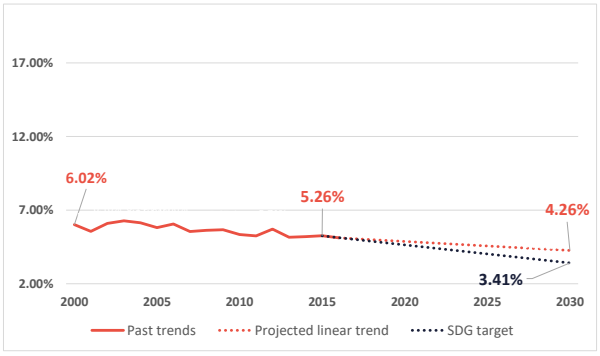
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

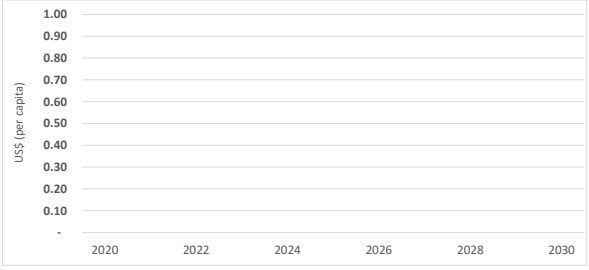


INVESTMENT CASE (2019)

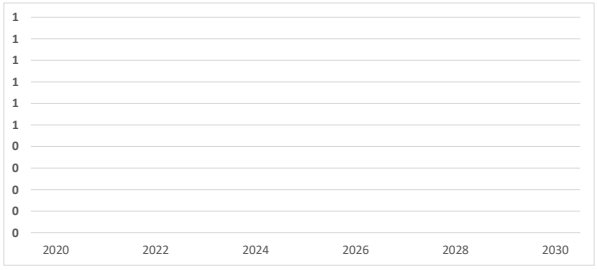
**High income*

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

Costs per year



Projected lives saved per year



PANAMA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	9.7
# of mammographs[a]	2020	95.8
# of CT scanners[a]	2020	47.3
# of MRI scanners[a]	2020	14.6
# of PET or PET/CT scanners[a]	2020	2.4

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	18.2
# of surgeons[a]	2014	513.1
# of radiologist[a]	2019	198.9
# of nuclear medicine physician[a]	2019	6.1
# of medical & pathology lab scientists[a]	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	40

# 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 available
Availability of opioids* for pain management	2015-2017	354

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

GLOBAL INITIATIVES

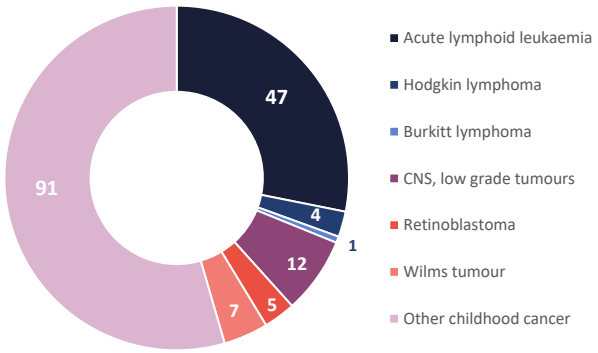
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	68.5
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	167
Early detection programme/guidelines	2019	no
Defined referral system	2019	yes

Annual cancer cases (0-14 years old)



PERU

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

32,510,462

Total # cancer cases (2018)	Total # cancer deaths (2018)
66,627	33,098

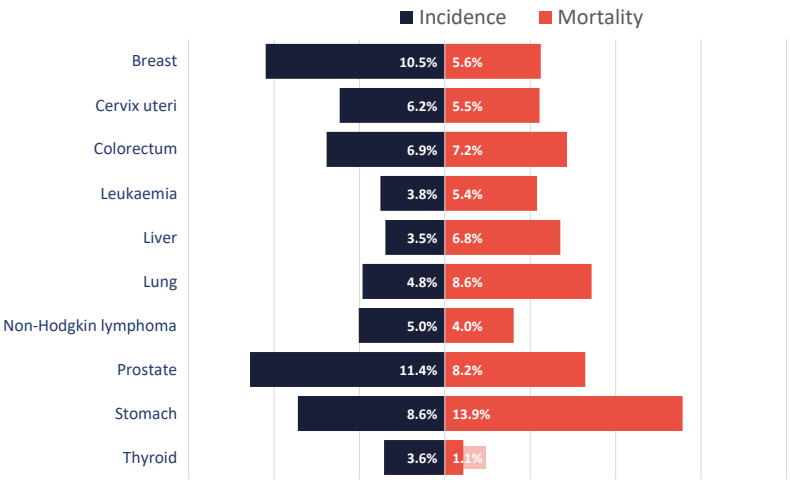
Premature deaths from NCDs (2016)

45,324

Cancer as % of NCD premature deaths (2016)

27.1%

Most common cancer cases (2018)



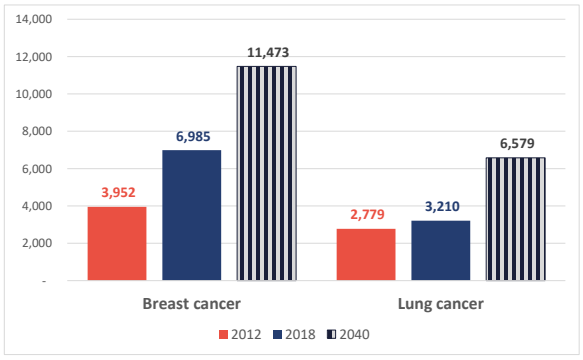
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
8.5%	3.2%	23.5%	3.3%	25.0%	1.6%

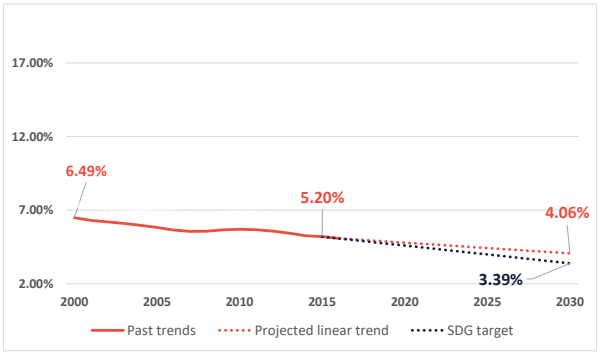
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

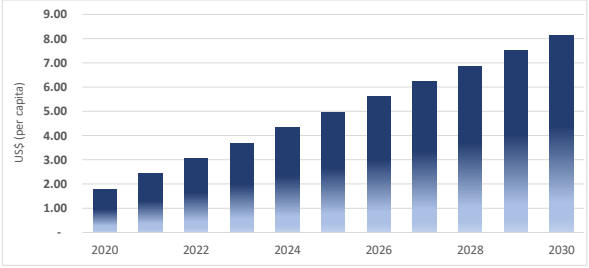


INVESTMENT CASE (2019)

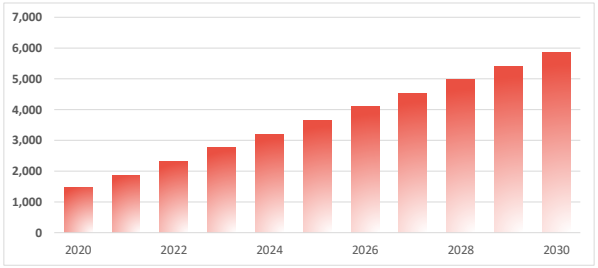
**Upper middle income*

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

Costs per year



Projected lives saved per year



PERU

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	7.1
# of mammographs[a]	2020	28.5
# of CT scanners[a]	2020	11.7
# of MRI scanners[a]	2020	3.5
# of PET or PET/CT scanners[a]	2020	0.6

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	1321.4
# of radiologist[a]	2019	115.9
# of nuclear medicine physician[a]	2019	6.9
# of medical & pathology lab scientists[a]	2012	226.9

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	2
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	1.2
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	don't know
Palliative care availability: community/home-based care	2019	generally not available
Availability of opioids* for pain management	2015-2017	175

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

GLOBAL INITIATIVES

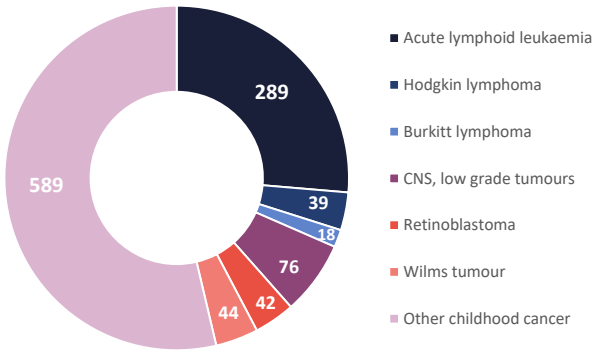
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	68.3
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	1097
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

PHILIPPINES

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

108,116,622

Total # cancer cases (2018)	Total # cancer deaths (2018)
141,021	86,337

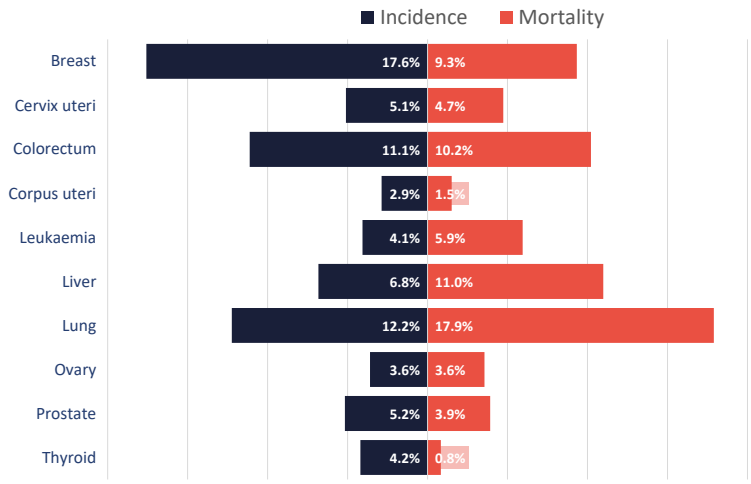
Premature deaths from NCDs (2016)

245,612

Cancer as % of NCD premature deaths (2016)

18.2%

Most common cancer cases (2018)



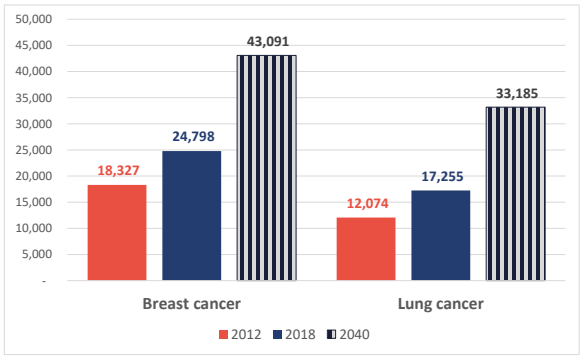
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
20.7%	6.3%	17.4%	1.8%	0.2%	1.8%

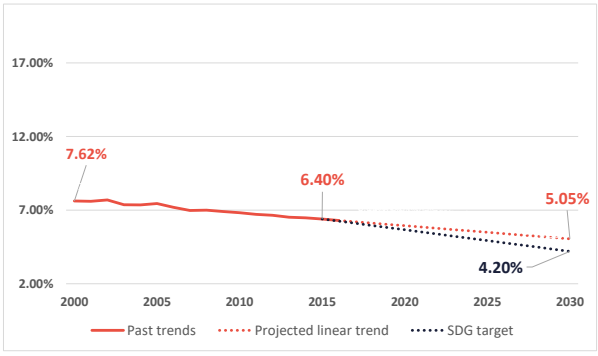
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

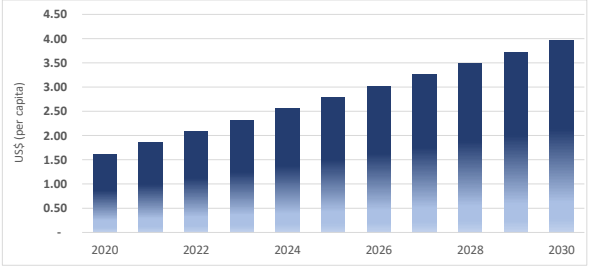


INVESTMENT CASE (2019)

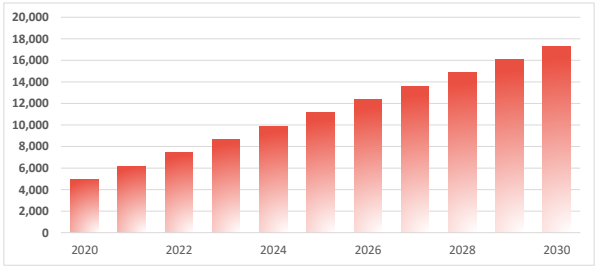
**Lower middle income*

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

Costs per year



Projected lives saved per year



PHILIPPINES

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	3.6
# of mammographs[a]	2020	5.6
# of CT scanners[a]	2020	21.3
# of MRI scanners[a]	2020	2.2
# of PET or PET/CT scanners[a]	2020	0.5

WORKFORCE

[a] *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[a]	2019	13.2
# of medical physicist[a]	2019	7.8
# of surgeons[a]	2014	177.3
# of radiologist[a]	2019	108.0
# of nuclear medicine physician[a]	2019	7.5
# of medical & pathology lab scientists[a]	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	0
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	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	25

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

GLOBAL INITIATIVES

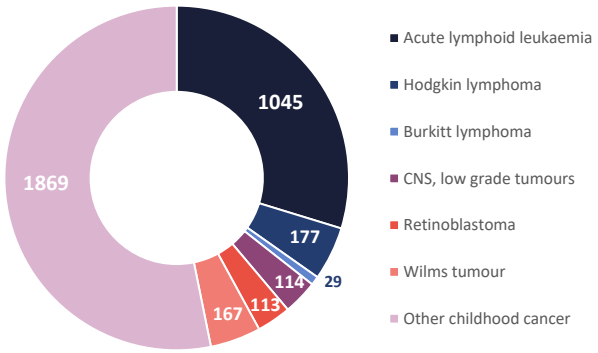
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	0.7
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
Screening programme method	2019	visual inspection
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	3514
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Annual cancer cases (0-14 years old)



PALAU

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

18,001

Total # cancer cases (2018)	Total # cancer deaths (2018)
n/a	n/a

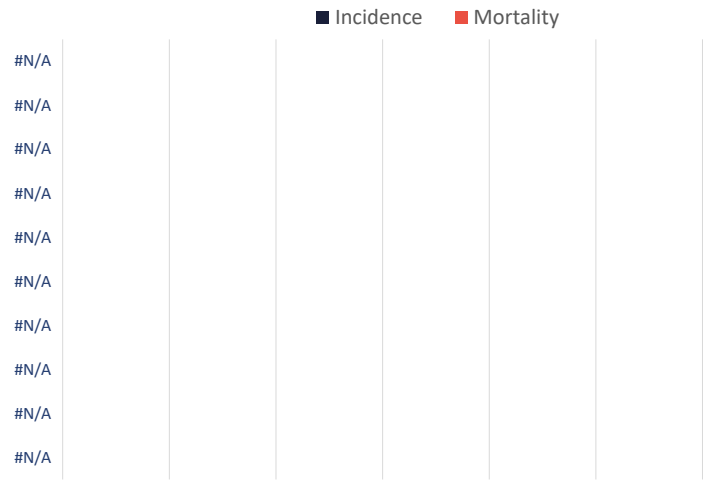
Premature deaths from NCDs (2016)

n/a

Cancer as % of NCD premature deaths (2016)

n/a

Most common cancer cases (2018)



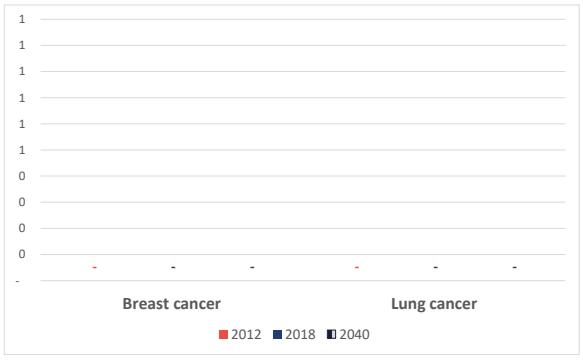
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
n/a	n/a	n/a	n/a	n/a	n/a

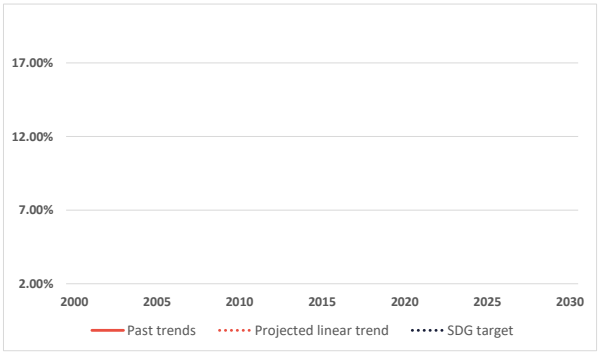
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

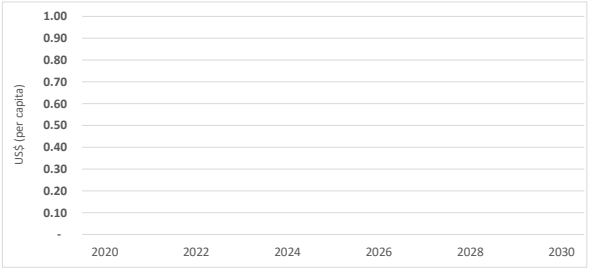


INVESTMENT CASE (2019)

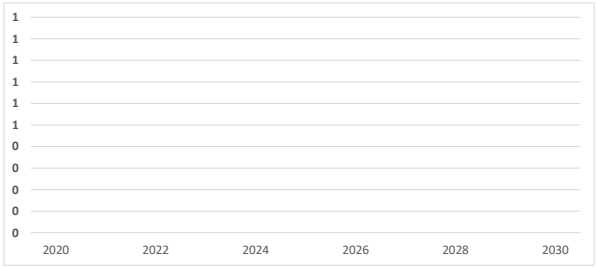
**High income*

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

Costs per year



Projected lives saved per year



PALAU

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	n/a
# of mammographs[a]	2020	n/a
# of CT scanners[a]	2020	n/a
# of MRI scanners[a]	2020	n/a
# of PET or PET/CT scanners[a]	2020	n/a

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	n/a
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	n/a
# of medical & pathology lab scientists[a]	1998	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	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	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	generally not available
Palliative care availability: community/home-based care	2019	generally available
Availability of opioids* for pain management	2015-2017	353

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

GLOBAL INITIATIVES

Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	47.5
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	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

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

PAPUA NEW GUINEA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

8,776,119

Total # cancer cases (2018)	Total # cancer deaths (2018)
11,913	7,477

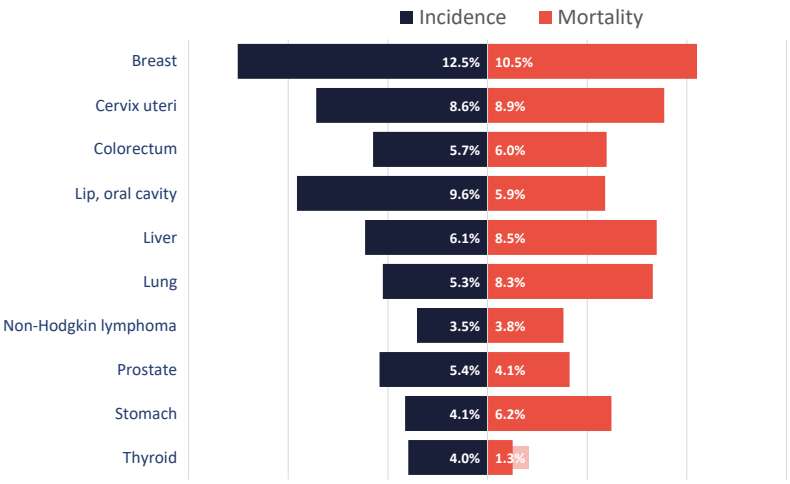
Premature deaths from NCDs (2016)

17,585

Cancer as % of NCD premature deaths (2016)

27.6%

Most common cancer cases (2018)



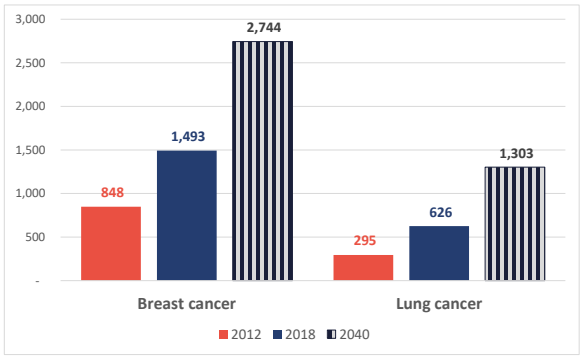
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
18.4%	4.2%	22.9%	2.2%	73.5%	2.0%

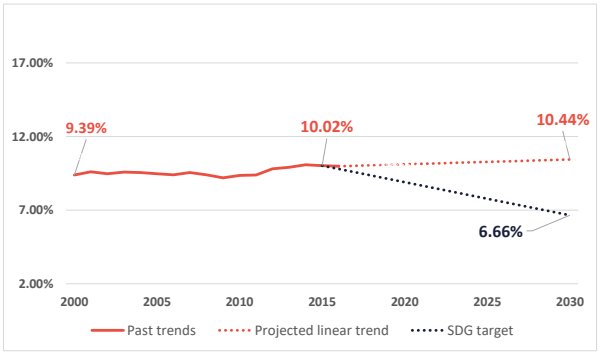
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

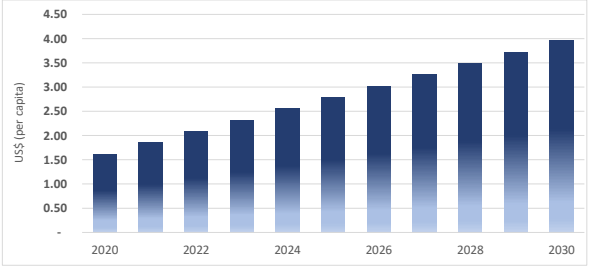


INVESTMENT CASE (2019)

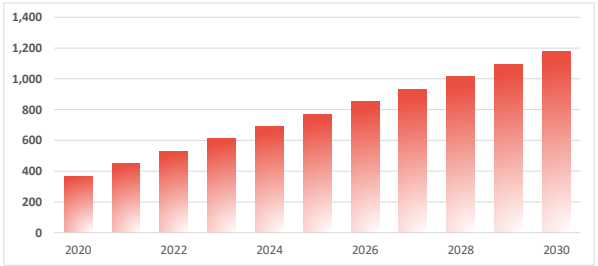
**Lower middle income*

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

Costs per year



Projected lives saved per year



PAPUA NEW GUINEA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	0.8
# of mammographs[a]	2020	2.5
# of CT scanners[a]	2020	2.5
# of MRI scanners[a]	2020	0.0
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	30.2
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	0.0
# of medical & pathology lab scientists[a]	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	yes
# 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	0.8
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	46

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

GLOBAL INITIATIVES

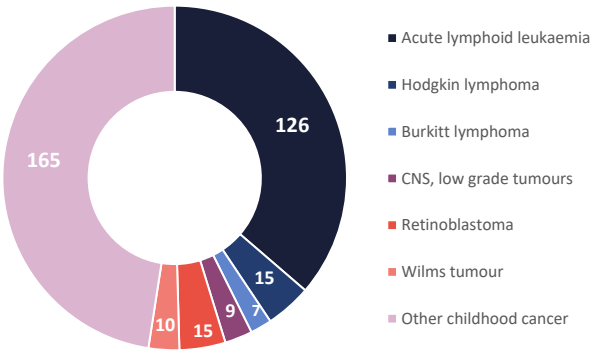
Elimination of Cervical Cancer

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	347
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

POLAND

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

37,887,771

Total # cancer cases (2018)	Total # cancer deaths (2018)
185,630	113,388

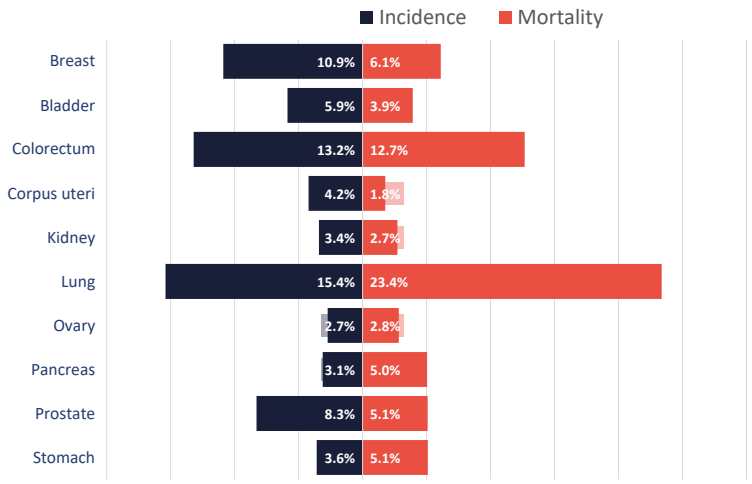
Premature deaths from NCDs (2016)

121,112

Cancer as % of NCD premature deaths (2016)

43.1%

Most common cancer cases (2018)



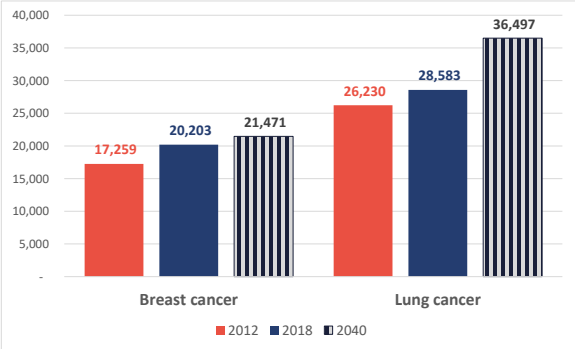
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
32.4%	8.2%	7.5%	6.7%	66.9%	4.5%

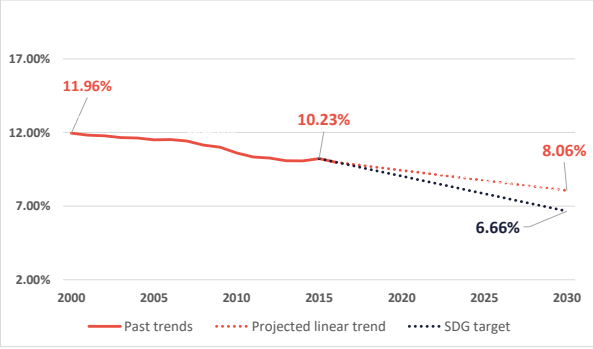
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

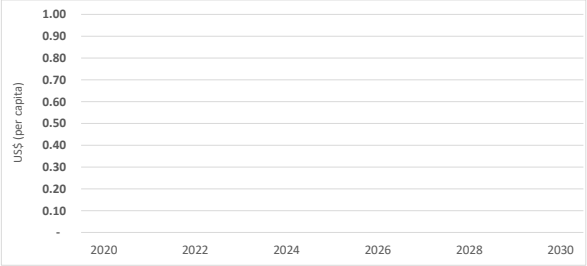


INVESTMENT CASE (2019)

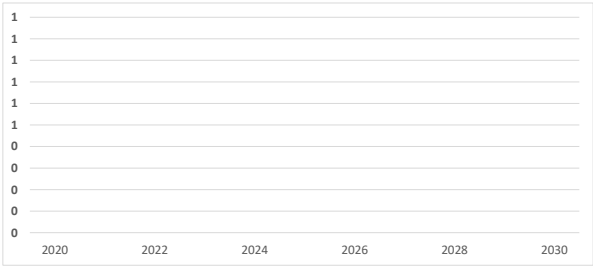
**High income*

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

Costs per year



Projected lives saved per year



POLAND

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	8.0
# of mammographs[a]	2020	28.5
# of CT scanners[a]	2020	43.5
# of MRI scanners[a]	2020	24.8
# of PET or PET/CT scanners[a]	2020	1.4

WORKFORCE

[a] 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[a]	2019	24.9
# of medical physicist[a]	2019	11.3
# of surgeons[a]	2014	320.7
# of radiologist[a]	2019	136.1
# of nuclear medicine physician[a]	2019	10.0
# of medical & pathology lab scientists[a]	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	don't know
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	50

# Public cancer centres per 10,000 cancer patients	2019	2.2
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
Pathology services	2019	don't know
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	1820

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

GLOBAL INITIATIVES

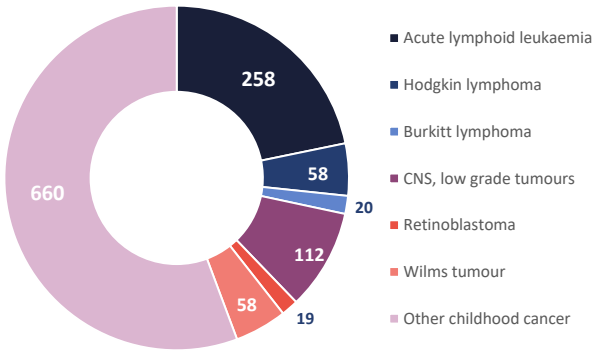
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
Screening programme method	2019	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	1185
Early detection programme/guidelines	2019	don't know
Defined referral system	2019	don't know

Annual cancer cases (0-14 years old)



Cancer Country Profile 2020

DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA

BURDEN OF CANCER

Total population (2019)

25,666,158

Total # cancer cases (2018)	Total # cancer deaths (2018)
55,476	35,997

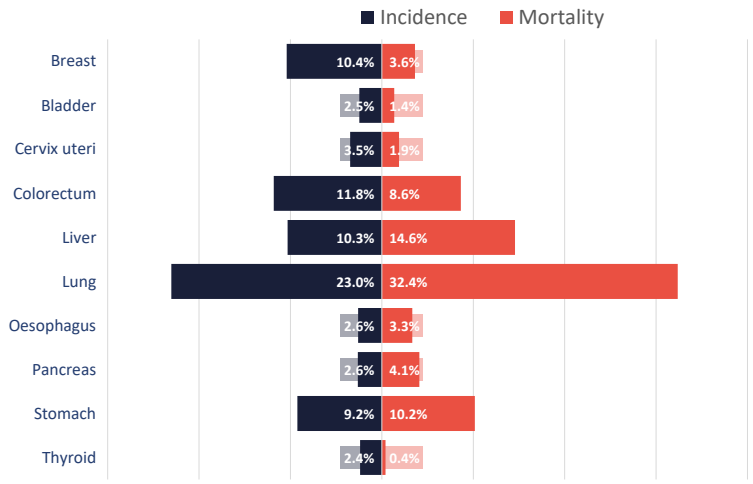
Premature deaths from NCDs (2016)

71,901

Cancer as % of NCD premature deaths (2016)

34.3%

Most common cancer cases (2018)



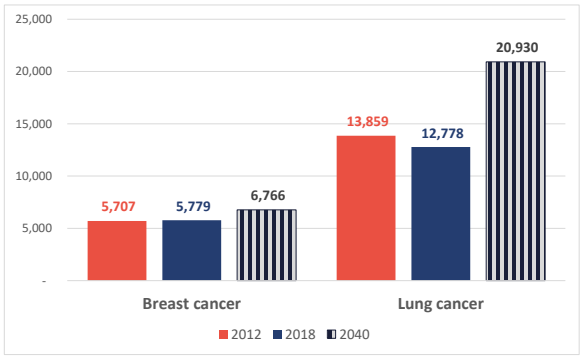
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
n/a	3.6%	18.0%	1.1%	0.0%	1.9%

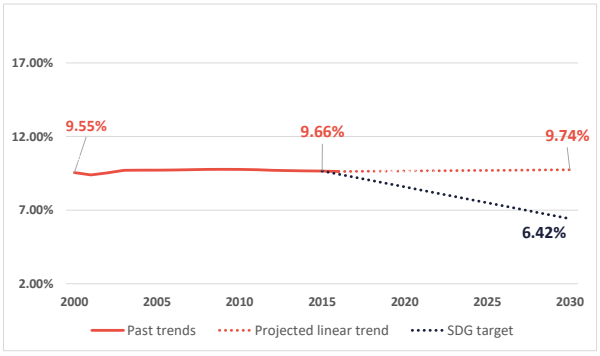
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

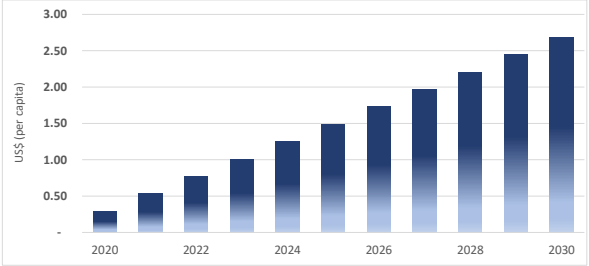


INVESTMENT CASE (2019)

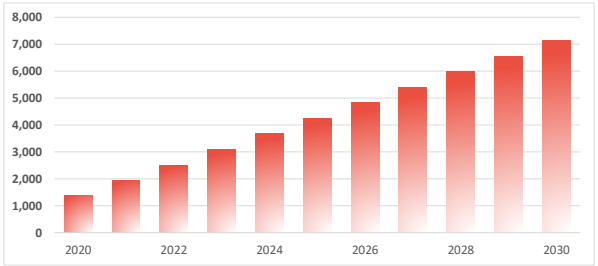
**Low income*

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 PEOPLE'S REPUBLIC OF KOREA

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	0.5
# of mammographs[a]	2020	n/a
# of CT scanners[a]	2020	n/a
# of MRI scanners[a]	2020	n/a
# of PET or PET/CT scanners[a]	2020	n/a

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	n/a	n/a
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	n/a
# of medical & pathology lab scientists[a]	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	4.5
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	18

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

GLOBAL INITIATIVES

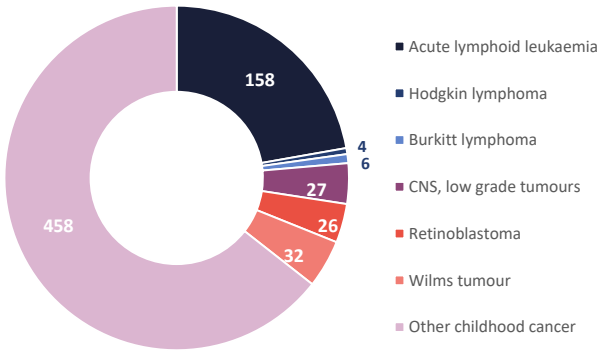
Elimination of Cervical Cancer

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	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	711
Early detection programme/guidelines	2019	no
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

PORTUGAL

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

10,226,178

Total # cancer cases (2018)	Total # cancer deaths (2018)
58,199	28,960

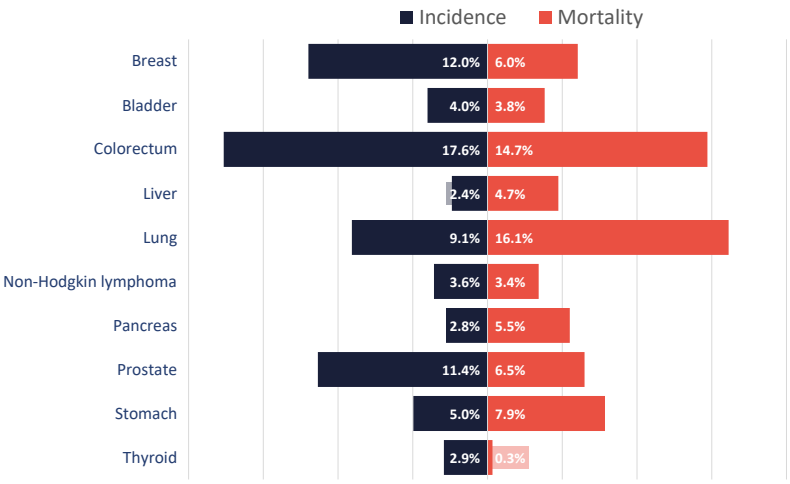
Premature deaths from NCDs (2016)

19,136

Cancer as % of NCD premature deaths (2016)

53.8%

Most common cancer cases (2018)



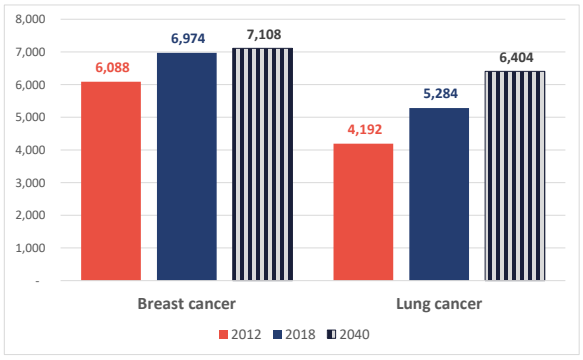
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
19.6%	9.8%	9.5%	5.6%	73.7%	2.5%

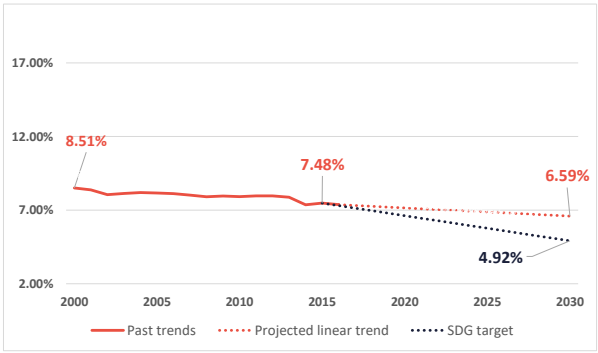
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

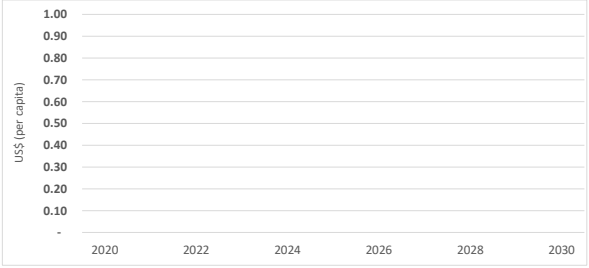


INVESTMENT CASE (2019)

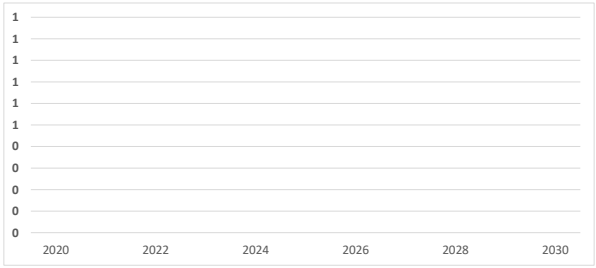
**High income*

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

Costs per year



Projected lives saved per year



PORTUGAL

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	9.5
# of mammographs[a]	2020	64.6
# of CT scanners[a]	2020	66.7
# of MRI scanners[a]	2020	31.8
# of PET or PET/CT scanners[a]	2020	1.2

WORKFORCE

[a] 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[a]	2019	14.9
# of medical physicist[a]	2019	22.7
# of surgeons[a]	2013	989.4
# of radiologist[a]	2019	212.0
# of nuclear medicine physician[a]	2019	13.7
# of medical & pathology lab scientists[a]	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	2.7
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	3987

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

GLOBAL INITIATIVES

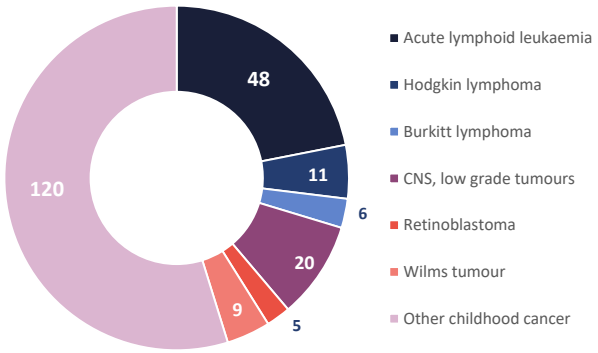
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	80.1
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	no

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	219
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Annual cancer cases (0-14 years old)



PARAGUAY

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

7,044,639

Total # cancer cases (2018)	Total # cancer deaths (2018)
11,244	5,635

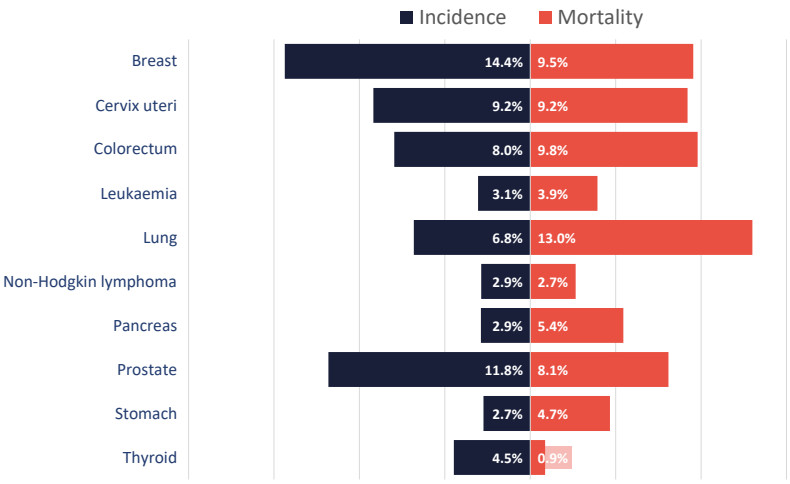
Premature deaths from NCDs (2016)

10,891

Cancer as % of NCD premature deaths (2016)

26.3%

Most common cancer cases (2018)



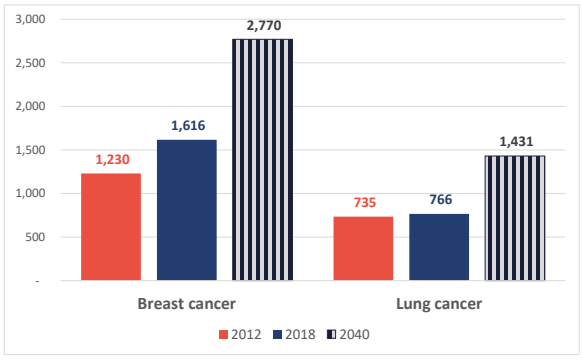
PAFs (population attributable fractions)

21.7%	5.1%	18.8%	3.4%	37.2%	1.9%
Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]

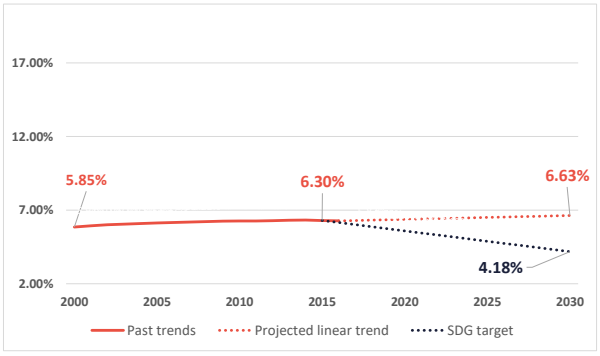
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

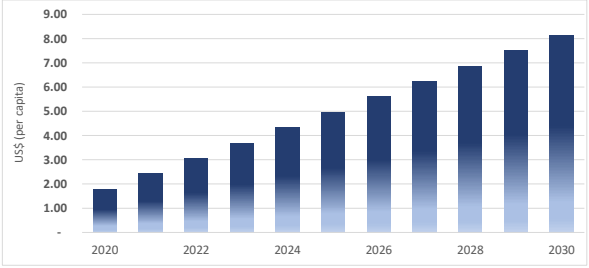


INVESTMENT CASE (2019)

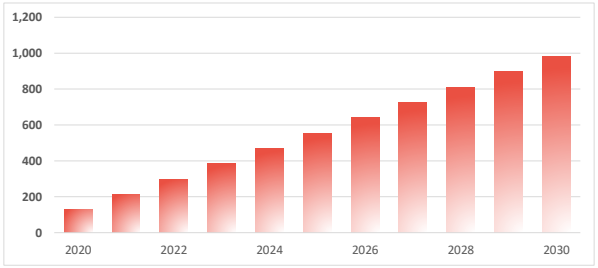
**Upper middle income*

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

Costs per year



Projected lives saved per year



PARAGUAY

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	4.4
# of mammographs[a]	2020	16.0
# of CT scanners[a]	2020	8.9
# of MRI scanners[a]	2020	1.8
# of PET or PET/CT scanners[a]	2020	2.7

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	4.4
# of surgeons[a]	2014	316.6
# of radiologist[a]	2019	44.5
# of nuclear medicine physician[a]	2019	4.4
# of medical & pathology lab scientists[a]	2012	1240.7

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	don't know
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	2.7
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	0

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

GLOBAL INITIATIVES

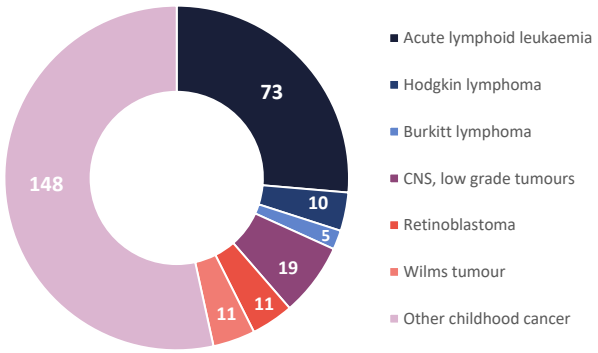
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	56.3
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	277
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

QATAR

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

2,832,071

Total # cancer cases (2018)	Total # cancer deaths (2018)
1,260	672

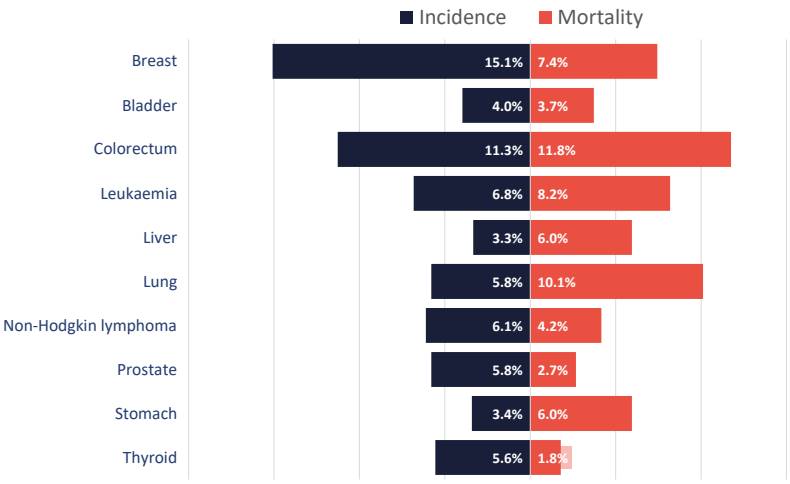
Premature deaths from NCDs (2016)

1,689

Cancer as % of NCD premature deaths (2016)

27.1%

Most common cancer cases (2018)



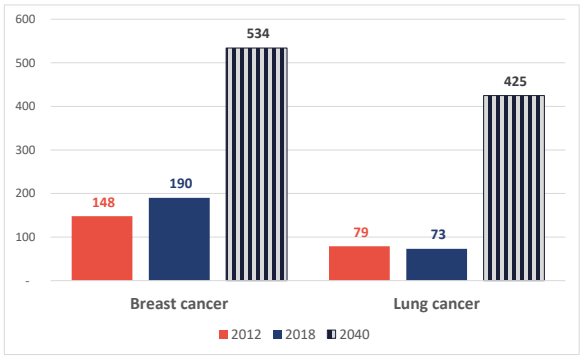
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
12.7%	2.2%	12.6%	4.9%	n/a	2.8%

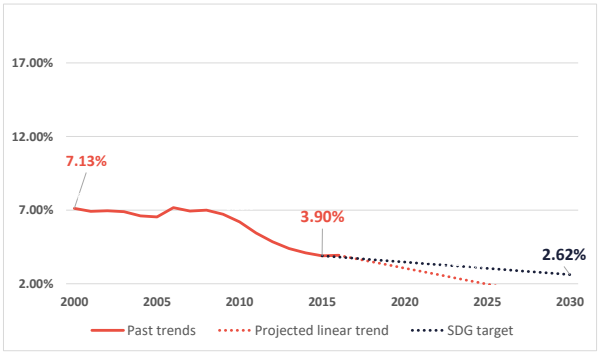
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

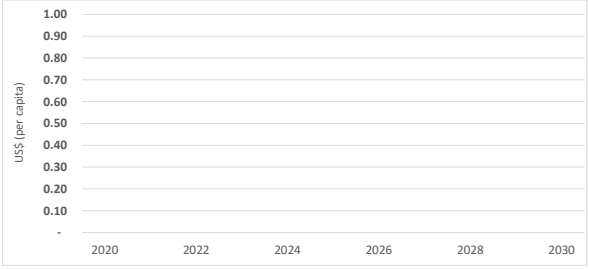


INVESTMENT CASE (2019)

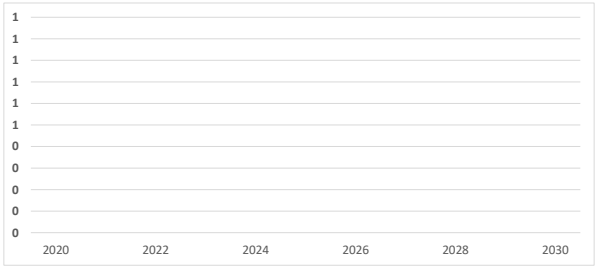
**High income*

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

Costs per year



Projected lives saved per year



QATAR

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	23.8
# of mammographs[a]	2020	111.1
# of CT scanners[a]	2020	246.0
# of MRI scanners[a]	2020	309.5
# of PET or PET/CT scanners[a]	2020	15.9

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	158.7
# of surgeons[a]	2011	531.7
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	39.7
# of medical & pathology lab scientists[a]	2006	4000.0

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	yes
Breast cancer screening program: Starting age, target population	2019	45

# Public cancer centres per 10,000 cancer patients	2019	7.9
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 not available
Palliative care availability: community/home-based care	2019	generally not available
Availability of opioids* for pain management	2015-2017	195

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

GLOBAL INITIATIVES

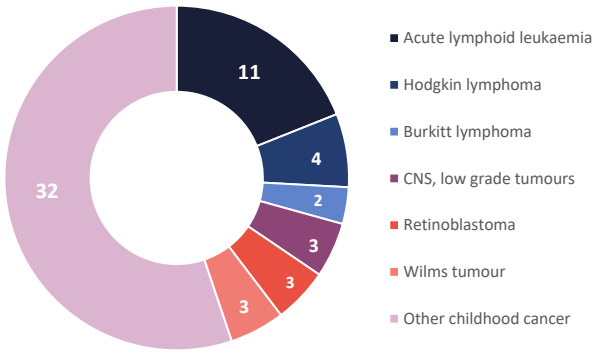
Elimination of Cervical Cancer

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	<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	58
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

ROMANIA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

19,364,558

Total # cancer cases (2018)	Total # cancer deaths (2018)
83,461	50,902

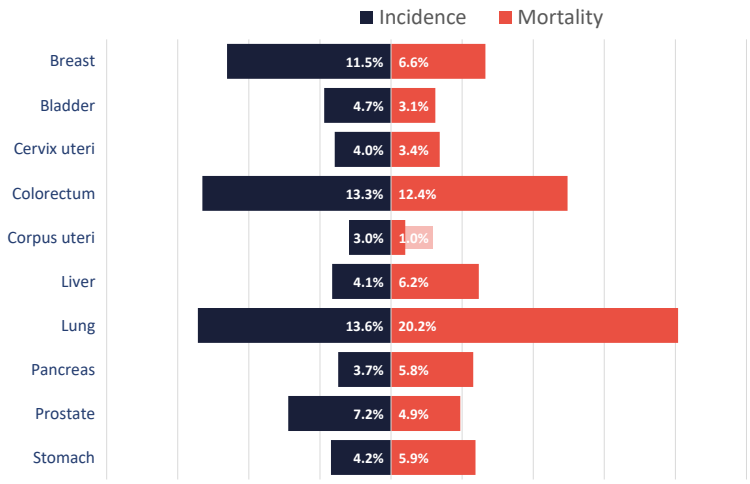
Premature deaths from NCDs (2016)

73,039

Cancer as % of NCD premature deaths (2016)

37.4%

Most common cancer cases (2018)



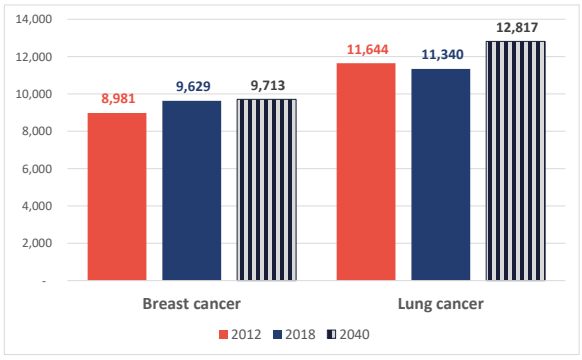
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
30.1%	11.8%	1300.0%	4.2%	55.8%	2.1%

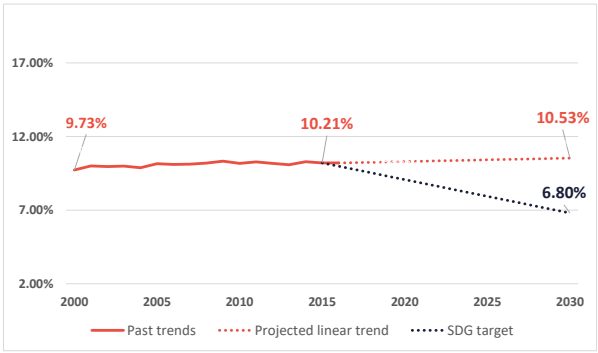
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

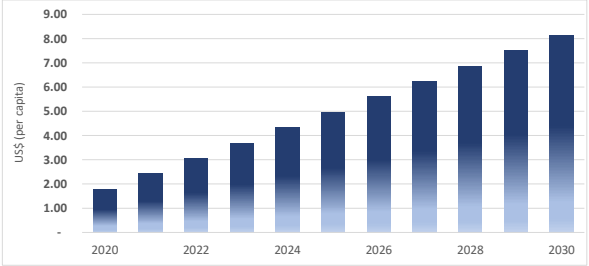


INVESTMENT CASE (2019)

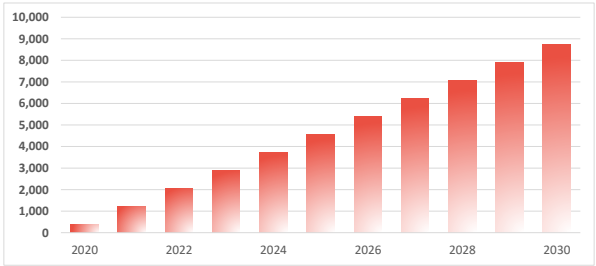
**Upper middle income*

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

Costs per year



Projected lives saved per year



ROMANIA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	6.4
# of mammographs[a]	2020	28.4
# of CT scanners[a]	2020	41.1
# of MRI scanners[a]	2020	21.7
# of PET or PET/CT scanners[a]	2020	1.4

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	3.5
# of surgeons[a]	2013	1097.2
# of radiologist[a]	2019	206.3
# of nuclear medicine physician[a]	2019	7.2
# of medical & pathology lab scientists[a]	2011	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	operational
NCCP (including cancer types)	2019	under development
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 not available
Palliative care availability: community/home-based care	2019	generally not available
Availability of opioids* for pain management	2015-2017	918

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

GLOBAL INITIATIVES

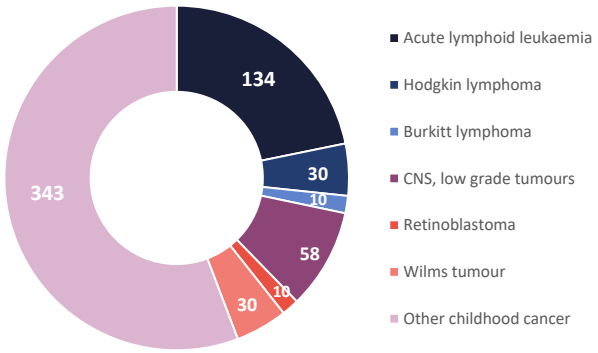
Elimination of Cervical Cancer

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	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	615
Early detection programme/guidelines	2019	no
Defined referral system	2019	don't know

Annual cancer cases (0-14 years old)



RUSSIAN FEDERATION

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

145,872,260

Total # cancer cases (2018)	Total # cancer deaths (2018)
543,045	314,611

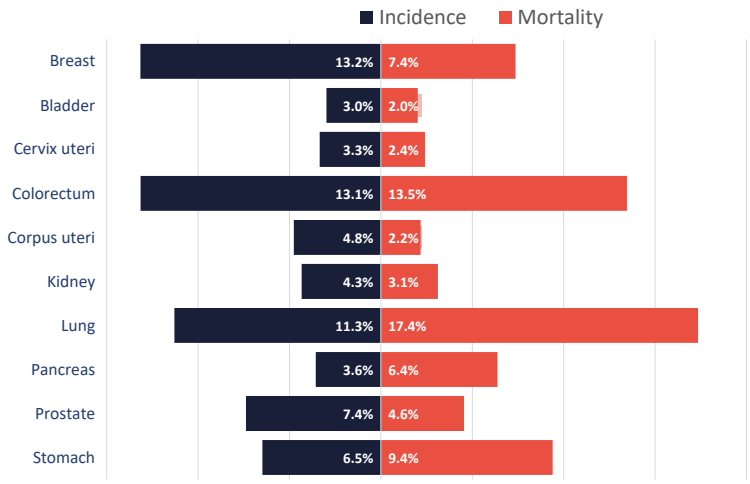
Premature deaths from NCDs (2016)

615,954

Cancer as % of NCD premature deaths (2016)

33.3%

Most common cancer cases (2018)



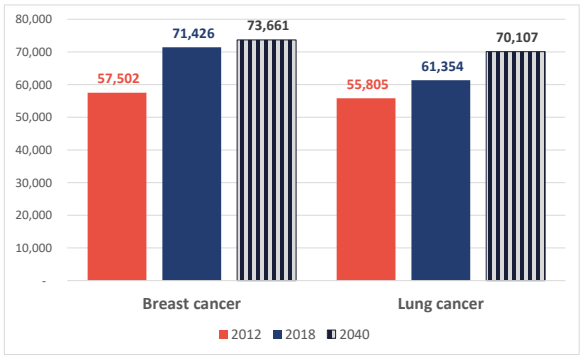
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
26.8%	10.1%	12.1%	7.0%	64.2%	2.0%

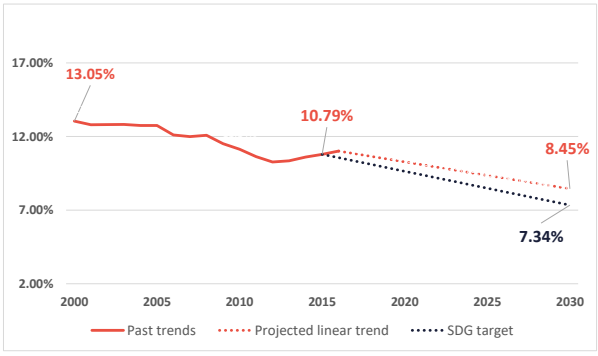
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

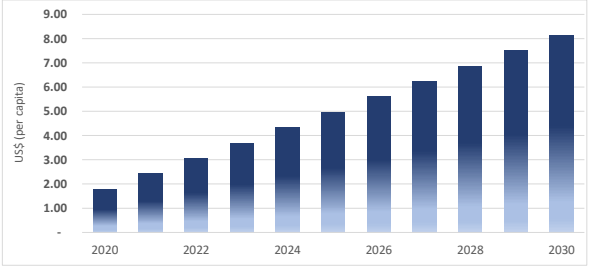


INVESTMENT CASE (2019)

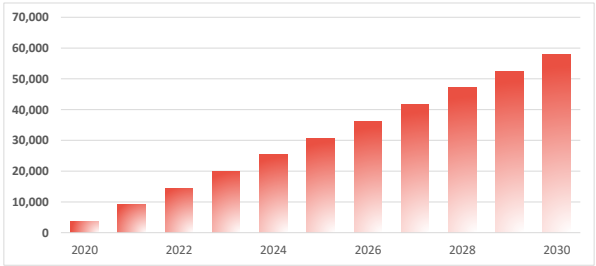
**Upper middle income*

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

Costs per year



Projected lives saved per year



RUSSIAN FEDERATION

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	8.1
# of mammographs[a]	2020	50.6
# of CT scanners[a]	2020	45.0
# of MRI scanners[a]	2020	19.9
# of PET or PET/CT scanners[a]	2020	0.5

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	11.0
# of surgeons[a]	2014	439.0
# of radiologist[a]	2019	455.7
# of nuclear medicine physician[a]	2019	n/a
# of medical & pathology lab scientists[a]	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	40

# Public cancer centres per 10,000 cancer patients	2019	0.2
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	don't know
Palliative care availability: community/home-based care	2019	generally available
Availability of opioids* for pain management	2015-2017	198

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

GLOBAL INITIATIVES

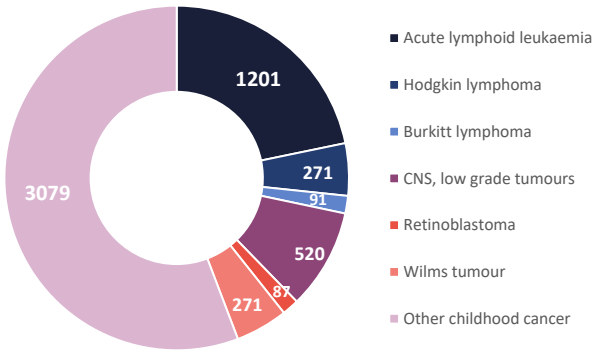
Elimination of Cervical Cancer

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	>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	5520
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Annual cancer cases (0-14 years old)



RWANDA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

12,626,938

Total # cancer cases (2018)	Total # cancer deaths (2018)
10,704	7,662

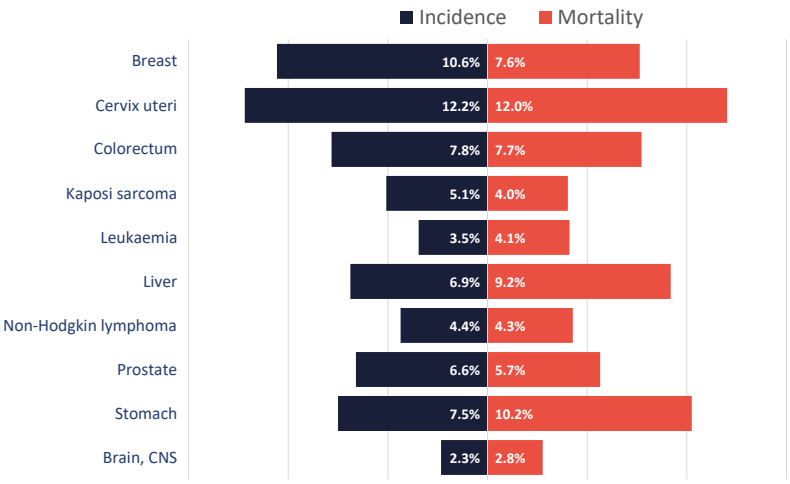
Premature deaths from NCDs (2016)

13,489

Cancer as % of NCD premature deaths (2016)

41.6%

Most common cancer cases (2018)



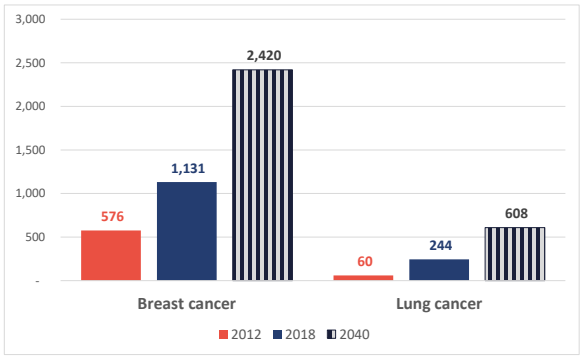
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
12.1%	10.0%	35.8%	0.4%	67.4%	0.7%

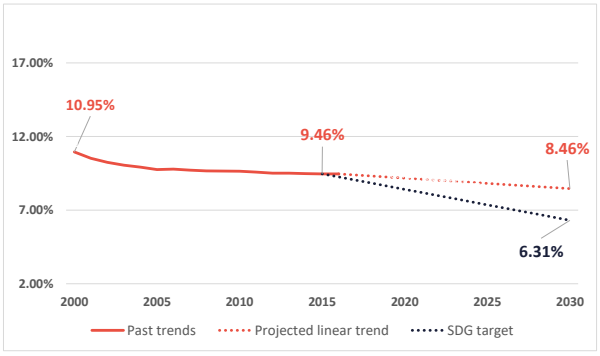
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

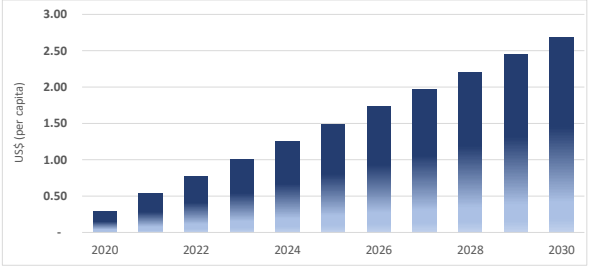


INVESTMENT CASE (2019)

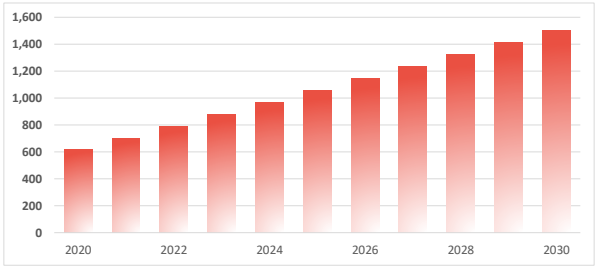
**Low income*

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

Costs per year



Projected lives saved per year



RWANDA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	1.9
# of mammographs[a]	2020	8.4
# of CT scanners[a]	2020	10.3
# of MRI scanners[a]	2020	0.9
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	39.2
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	0.0
# of medical & pathology lab scientists[a]	2015	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	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	2.8
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	10

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

GLOBAL INITIATIVES

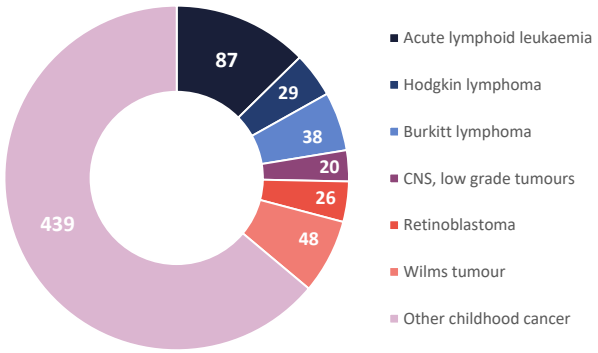
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	84.1
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	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	687
Early detection programme/guidelines	2019	no
Defined referral system	2019	

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

SAUDI ARABIA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

34,268,529

Total # cancer cases (2018)	Total # cancer deaths (2018)
24,485	10,518

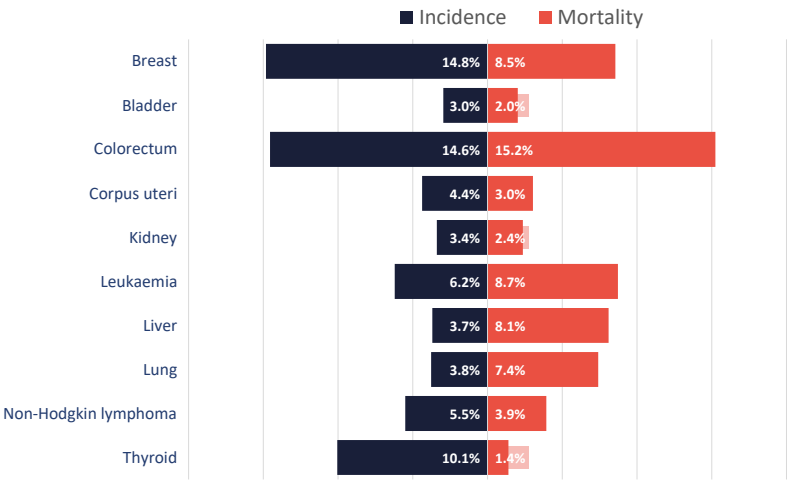
Premature deaths from NCDs (2016)

36,951

Cancer as % of NCD premature deaths (2016)

19.1%

Most common cancer cases (2018)



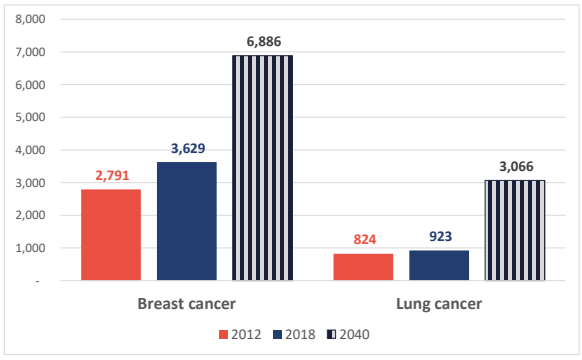
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
10.0%	0.4%	12.0%	6.8%	0.0%	1.0%

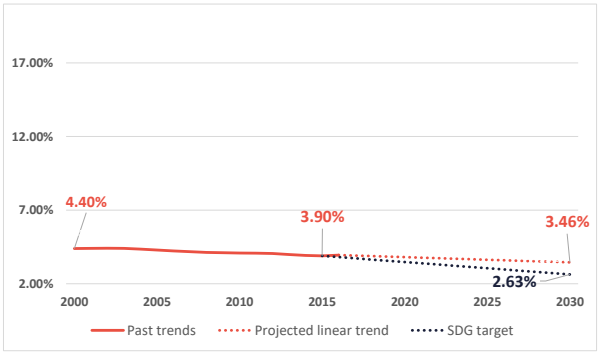
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

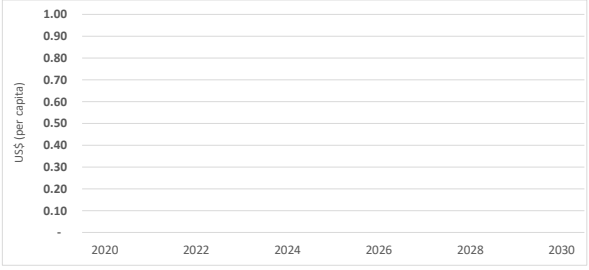


INVESTMENT CASE (2019)

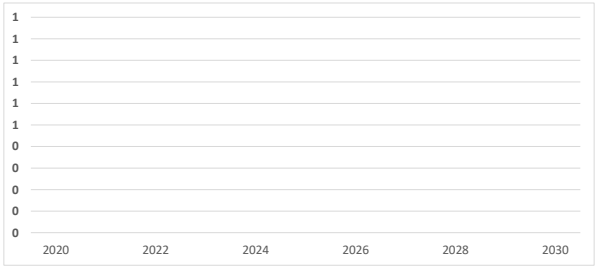
**High income*

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

Costs per year



Projected lives saved per year



SAUDI ARABIA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	13.1
# of mammographs[a]	2020	81.7
# of CT scanners[a]	2020	251.6
# of MRI scanners[a]	2020	158.5
# of PET or PET/CT scanners[a]	2020	11.0

WORKFORCE

[a] 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[a]	2019	24.5
# of medical physicist[a]	2019	102.1
# of surgeons[a]	n/a	n/a
# of radiologist[a]	2019	1114.2
# of nuclear medicine physician[a]	2019	32.3
# of medical & pathology lab scientists[a]	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	40

# Public cancer centres per 10,000 cancer patients	2019	4.1
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 not available
Availability of opioids* for pain management	2015-2017	304

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

GLOBAL INITIATIVES

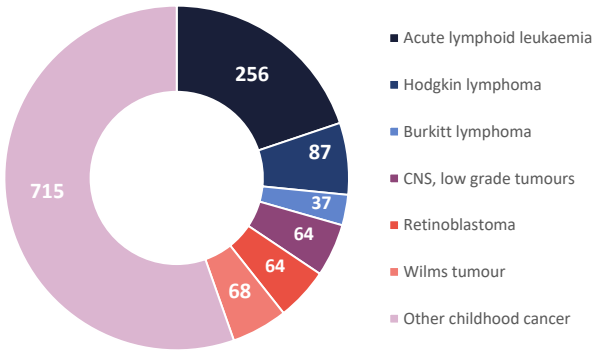
Elimination of Cervical Cancer

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	1291
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

SUDAN

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

42,813,237

Total # cancer cases (2018)	Total # cancer deaths (2018)
25,746	17,160

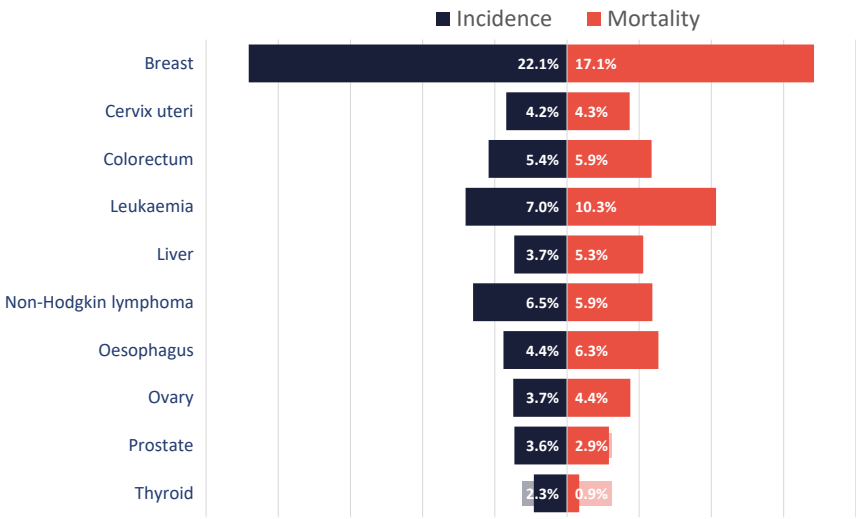
Premature deaths from NCDs (2016)

68,650

Cancer as % of NCD premature deaths (2016)

16.3%

Most common cancer cases (2018)



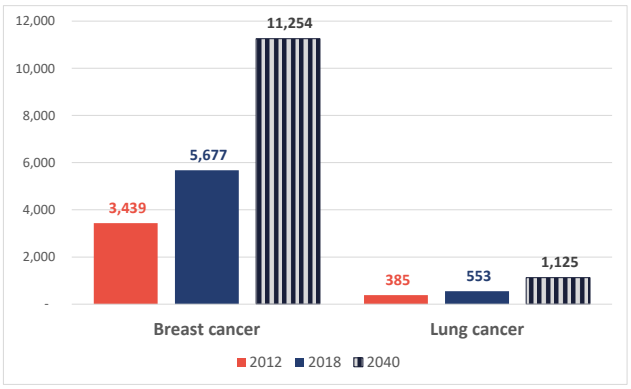
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
4.9%	1.4%	15.6%	1.3%	2.4%	1.1%

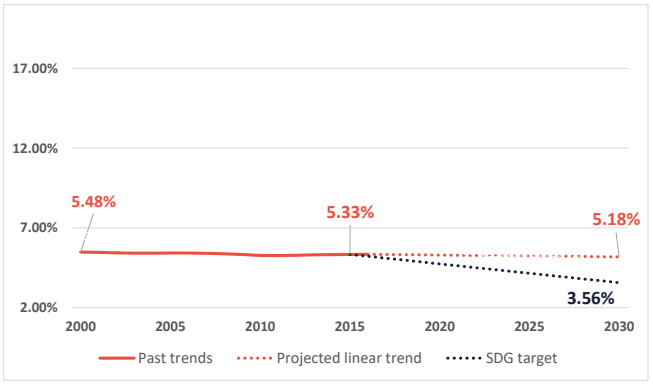
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

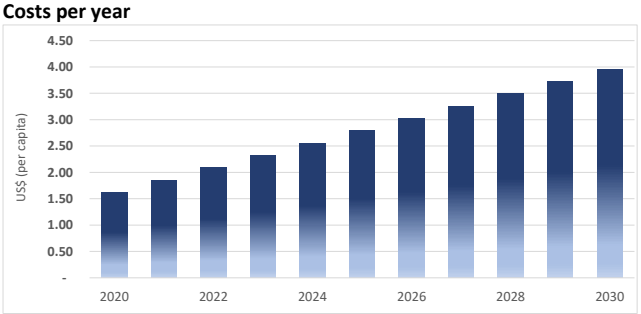


INVESTMENT CASE (2019)

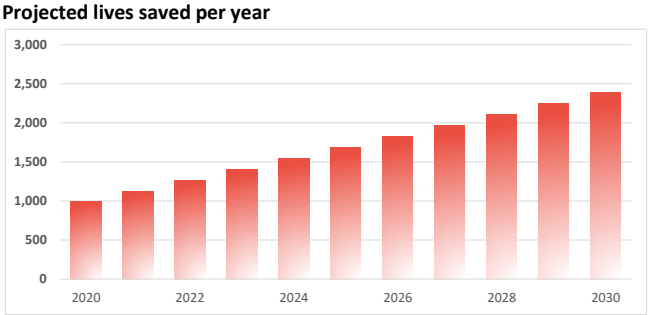
**Lower middle income*

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

Costs per year



Projected lives saved per year



SUDAN

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	3.1
# of mammographs[a]	2020	7.8
# of CT scanners[a]	2020	17.9
# of MRI scanners[a]	2020	5.0
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	10.9
# of surgeons[a]	2014	116.5
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	1.2
# of medical & pathology lab scientists[a]	2004	13.6

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	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	0.8
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	generally not available
Palliative care availability: community/home-based care	2019	don't know
Availability of opioids* for pain management	2015-2017	7

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

GLOBAL INITIATIVES

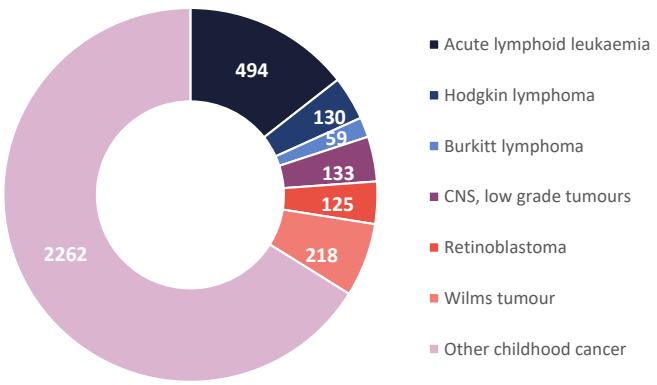
Elimination of Cervical Cancer

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	3421
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

SENEGAL

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

16,296,362

Total # cancer cases (2018)	Total # cancer deaths (2018)
10,549	7,571

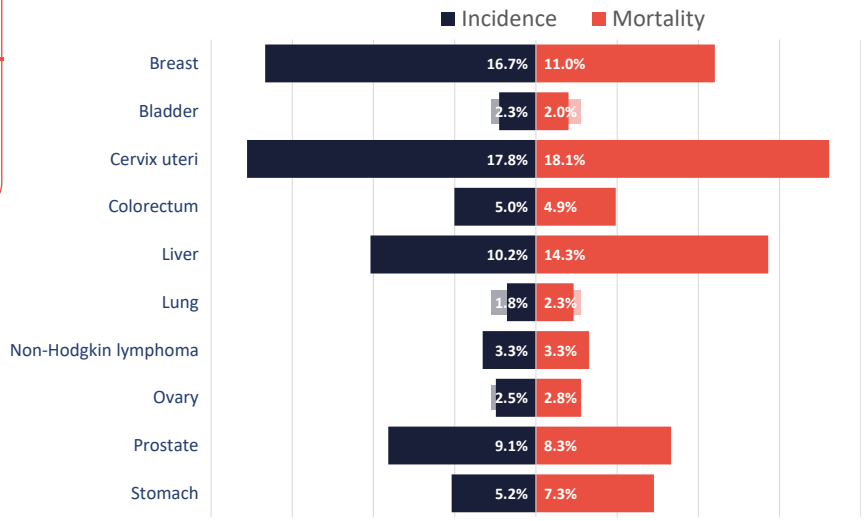
Premature deaths from NCDs (2016)

15,683

Cancer as % of NCD premature deaths (2016)

24.8%

Most common cancer cases (2018)



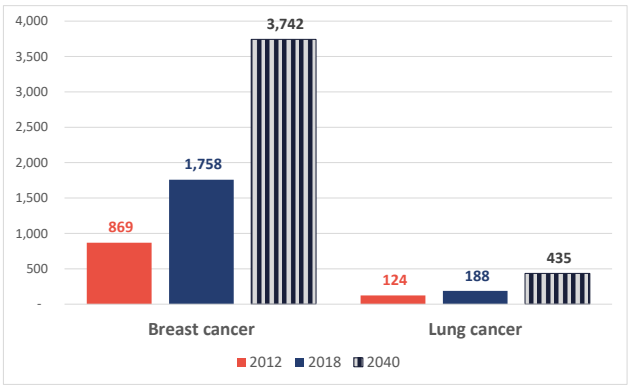
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
7.5%	1.6%	38.2%	1.3%	37.2%	0.8%

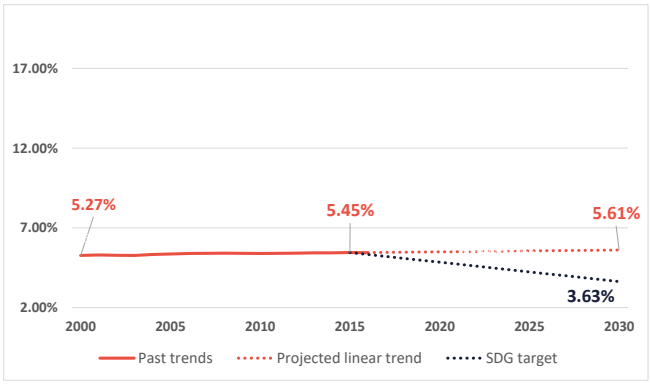
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

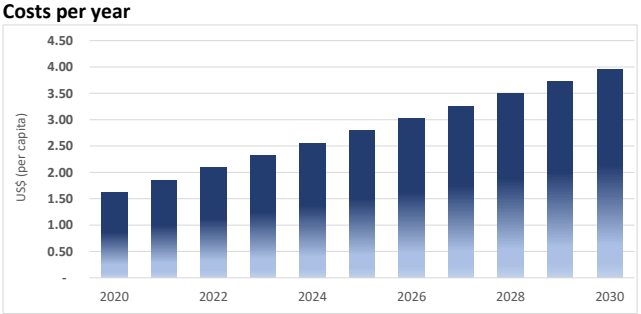


INVESTMENT CASE (2019)

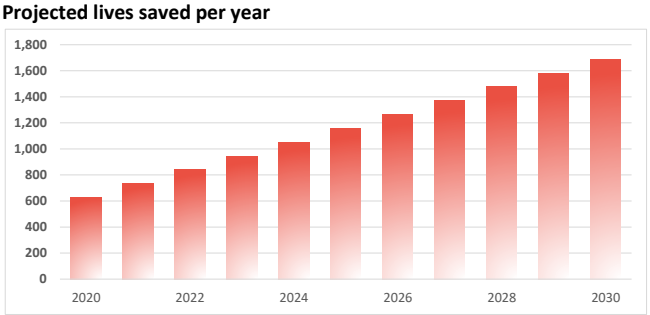
**Lower middle income*

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

Costs per year



Projected lives saved per year



SENEGAL

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	2.8
# of mammographs[a]	2020	23.7
# of CT scanners[a]	2020	28.4
# of MRI scanners[a]	2020	1.9
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	1.9
# of surgeons[a]	2011	36.0
# of radiologist[a]	2019	47.4
# of nuclear medicine physician[a]	2019	2.8
# of medical & pathology lab scientists[a]	2016	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	operational
NCCP (including cancer types)	2019	operational
MPOWER measures fully implemented and achieved	2018	3
Cancer management guidelines	2019	yes
Palliative care included in their operational, integrated NCD plan	2019	yes
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3
Breast cancer screening program	2019	yes
Breast cancer screening program: Starting age, target population	2019	20

# Public cancer centres per 10,000 cancer patients	2019	1.9
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	22

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

GLOBAL INITIATIVES

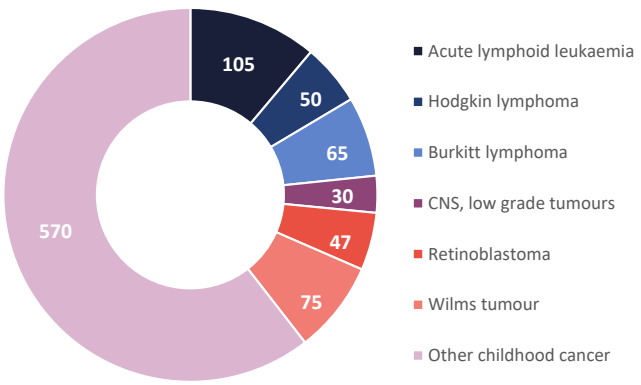
Elimination of Cervical Cancer

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%-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	942
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

SINGAPORE

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

5,804,343

Total # cancer cases (2018)	Total # cancer deaths (2018)
26,164	13,093

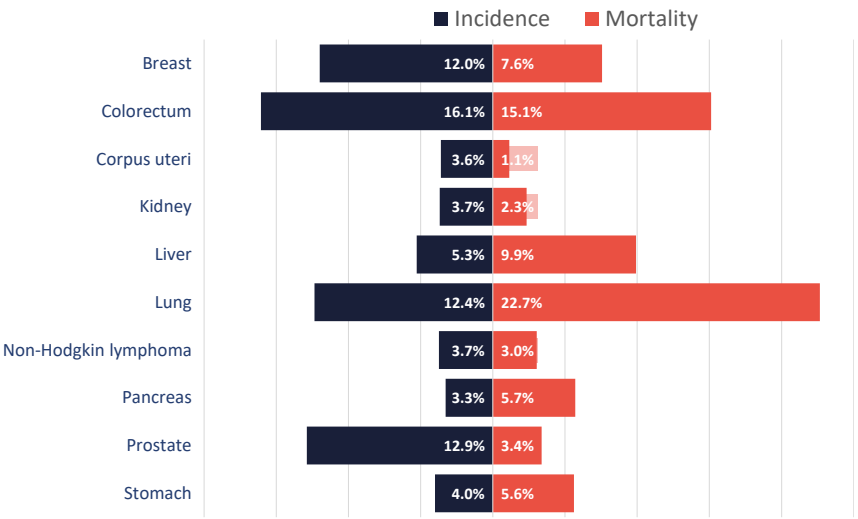
Premature deaths from NCDs (2016)

7,899

Cancer as % of NCD premature deaths (2016)

48.7%

Most common cancer cases (2018)



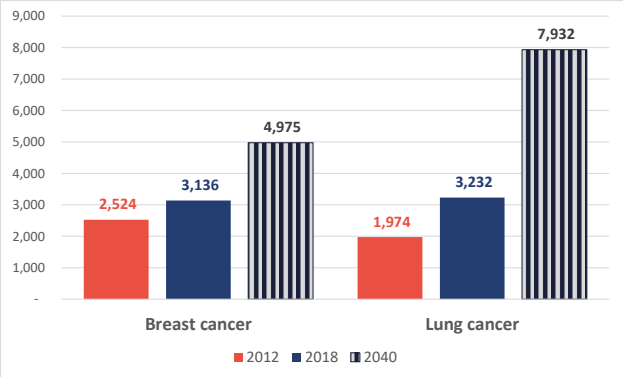
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
20.7%	4.2%	1300.0%	3.4%	1.9%	4.2%

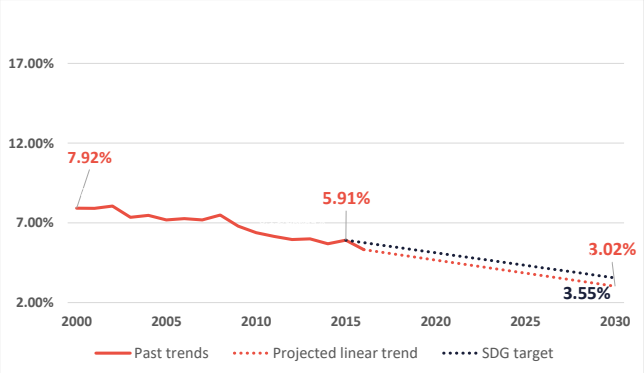
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

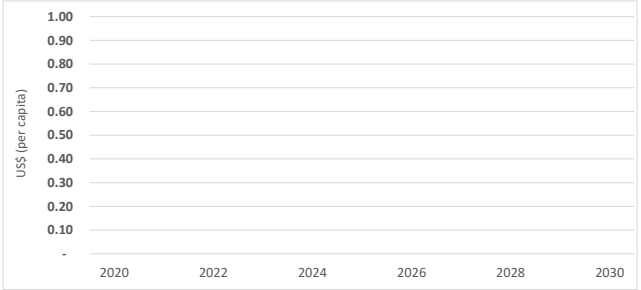


INVESTMENT CASE (2019)

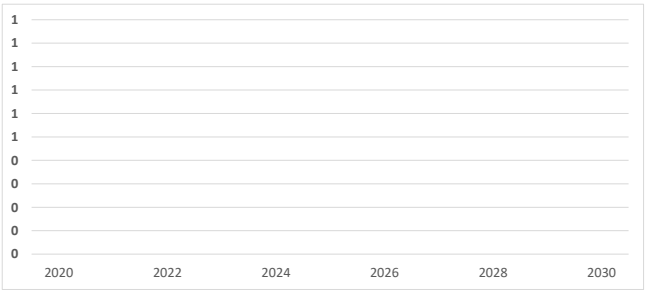
**High income*

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

Costs per year



Projected lives saved per year



SINGAPORE

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	8.8
# of mammographs[a]	2020	32.5
# of CT scanners[a]	2020	19.1
# of MRI scanners[a]	2020	16.8
# of PET or PET/CT scanners[a]	2020	5.4

WORKFORCE

[a] *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[a]	2019	15.7
# of medical physicist[a]	2019	16.1
# of surgeons[a]	2013	389.5
# of radiologist[a]	2019	115.4
# of nuclear medicine physician[a]	2019	11.5
# of medical & pathology lab scientists[a]	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	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	0.8
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	571

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

GLOBAL INITIATIVES

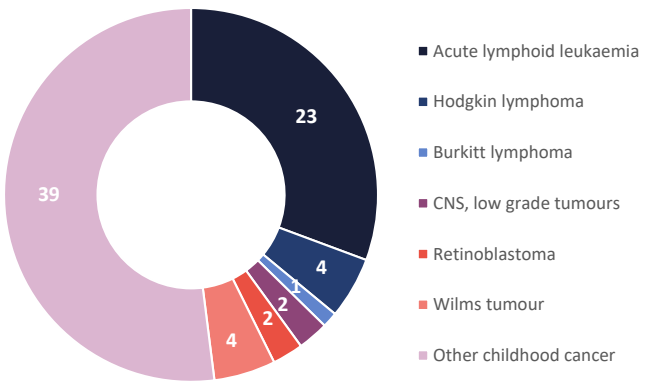
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	0.1
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	75
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Annual cancer cases (0-14 years old)



SOLOMON ISLANDS

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

669,821

Total # cancer cases (2018)	Total # cancer deaths (2018)
504	331

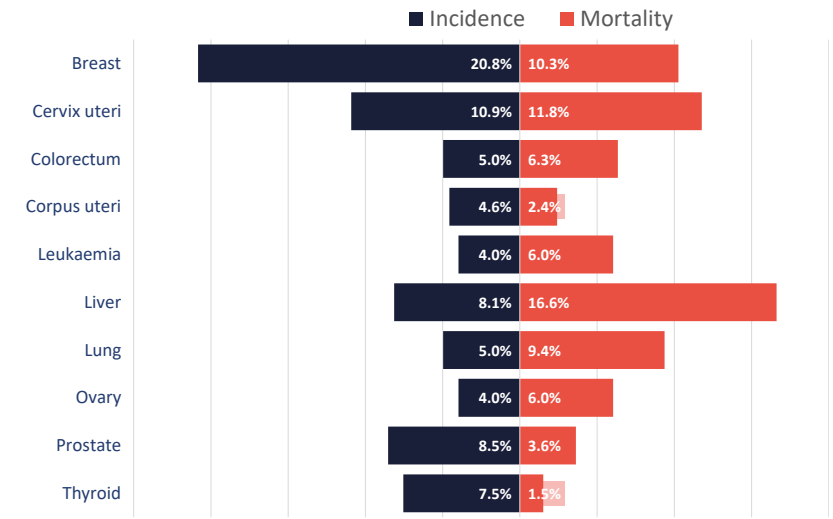
Premature deaths from NCDs (2016)

848

Cancer as % of NCD premature deaths (2016)

28.5%

Most common cancer cases (2018)



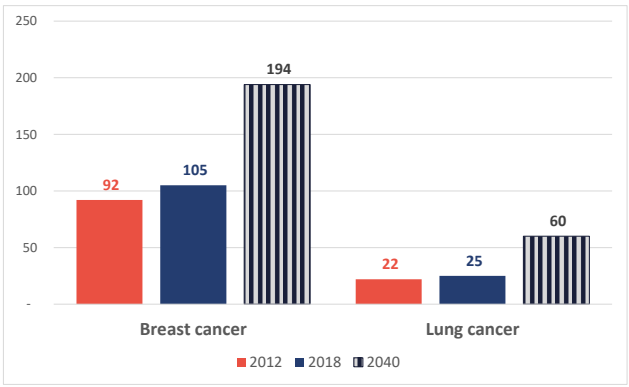
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
18.8%	2.9%	22.5%	4.7%	n/a	1.8%

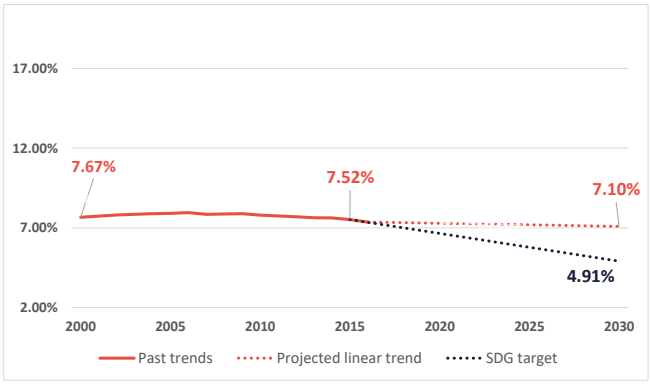
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

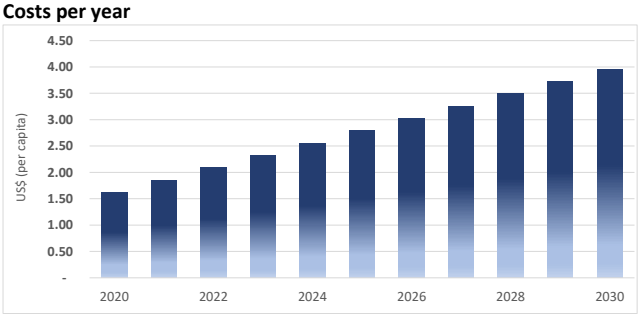


INVESTMENT CASE (2019)

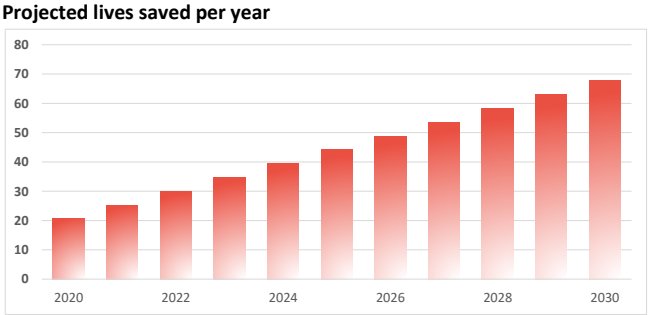
**Lower middle income*

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

Costs per year



Projected lives saved per year



SOLOMON ISLANDS

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	0.0
# of mammographs[a]	2020	0.0
# of CT scanners[a]	2020	19.8
# of MRI scanners[a]	2020	0.0
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2011	99.2
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	0.0
# of medical & pathology lab scientists[a]	2013	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	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	-
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	18

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

GLOBAL INITIATIVES

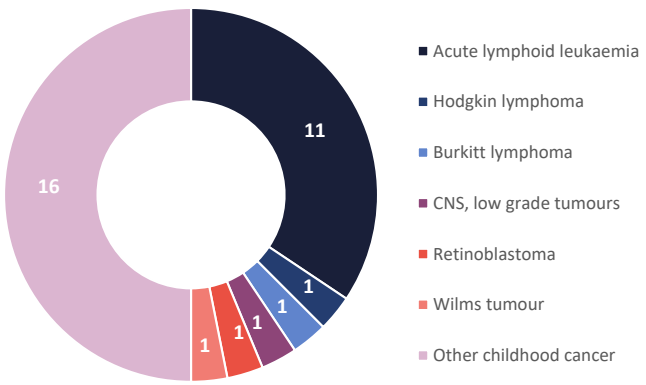
Elimination of Cervical Cancer

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	32
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

SIERRA LEONE

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

7,813,207

Total # cancer cases (2018)	Total # cancer deaths (2018)
4,125	3,002

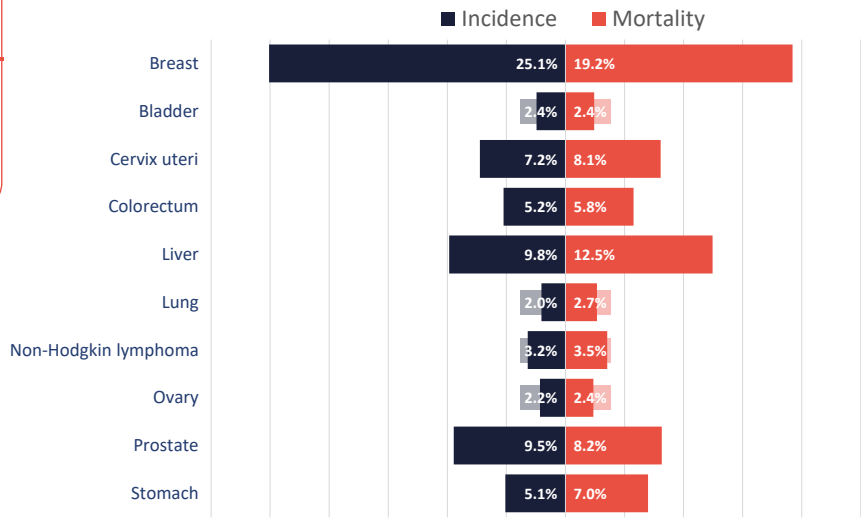
Premature deaths from NCDs (2016)

15,308

Cancer as % of NCD premature deaths (2016)

12.0%

Most common cancer cases (2018)



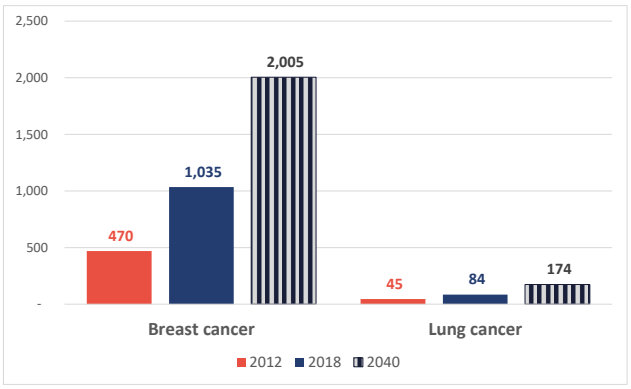
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
10.8%	7.2%	38.1%	1.1%	22.3%	0.7%

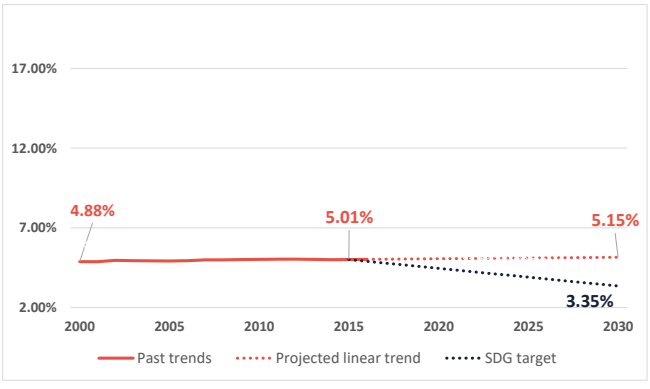
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

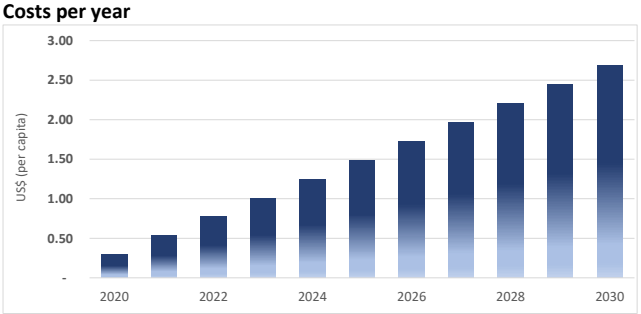


INVESTMENT CASE (2019)

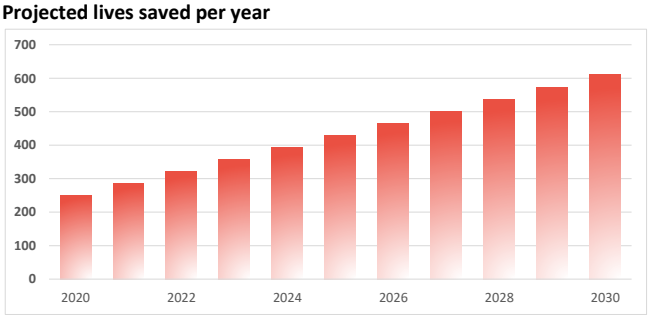
**Low income*

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

Costs per year



Projected lives saved per year



SIERRA LEONE

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	0.0
# of mammographs[a]	2020	7.3
# of CT scanners[a]	2020	7.3
# of MRI scanners[a]	2020	2.4
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2012	12.1
# of radiologist[a]	2019	9.7
# of nuclear medicine physician[a]	2019	0.0
# of medical & pathology lab scientists[a]	2011	443.6

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	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	-
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 miliion inhabitants per day*

GLOBAL INITIATIVES

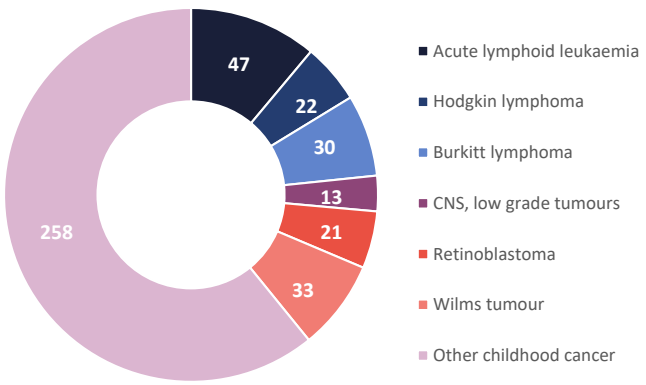
Elimination of Cervical Cancer

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	424
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

EL SALVADOR

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

6,453,550

Total # cancer cases (2018)	Total # cancer deaths (2018)
10,326	6,222

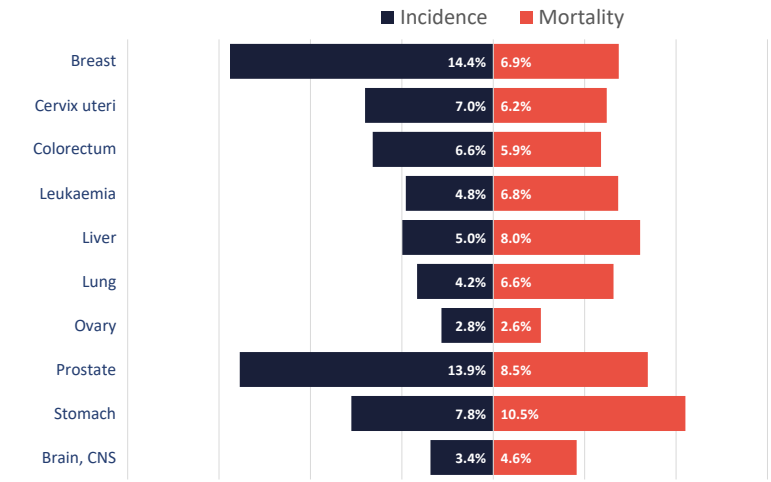
Premature deaths from NCDs (2016)

11,472

Cancer as % of NCD premature deaths (2016)

24.4%

Most common cancer cases (2018)



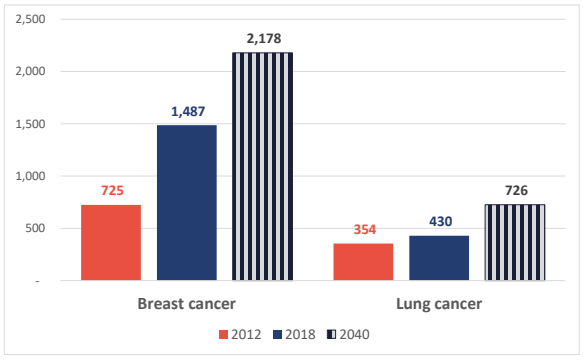
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
10.9%	2.4%	23.1%	4.7%	1.3%	1.0%

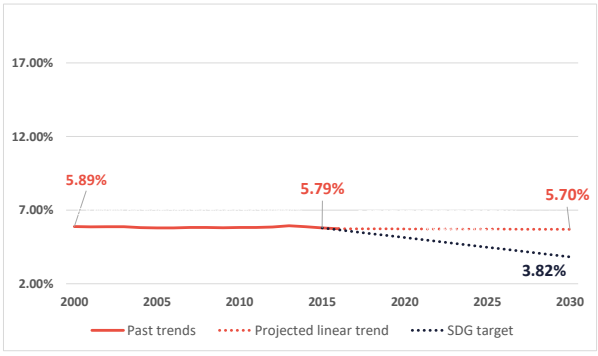
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

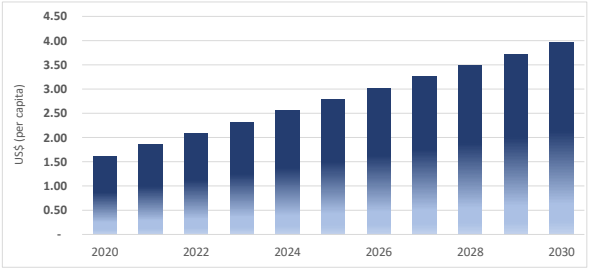


INVESTMENT CASE (2019)

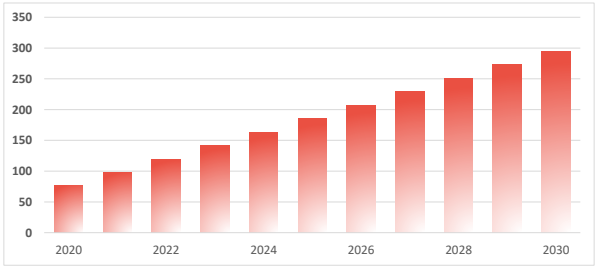
**Lower middle income*

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

Costs per year



Projected lives saved per year



EL SALVADOR

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	8.7
# of mammographs[a]	2020	29.1
# of CT scanners[a]	2020	29.1
# of MRI scanners[a]	2020	6.8
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	10.7
# of surgeons[a]	2009	1183.4
# of radiologist[a]	2019	62.0
# of nuclear medicine physician[a]	2019	1.9
# of medical & pathology lab scientists[a]	2016	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	operational
NCCP (including cancer types)	2019	operational
MPOWER measures fully implemented and achieved	2018	3
Cancer management guidelines	2019	yes
Palliative care included in their operational, integrated NCD plan	2019	yes
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3
Breast cancer screening program	2019	yes
Breast cancer screening program: Starting age, target population	2019	40

# Public cancer centres per 10,000 cancer patients	2019	3.9
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	183

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

GLOBAL INITIATIVES

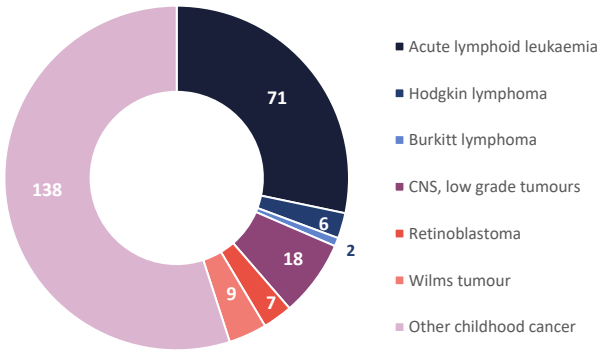
Elimination of Cervical Cancer

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	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	251
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

SAN MARINO

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

33,864

Total # cancer cases (2018)	Total # cancer deaths (2018)
n/a	n/a

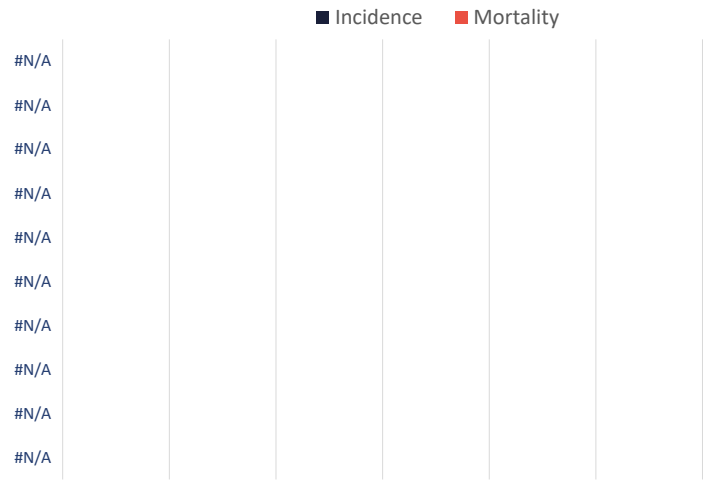
Premature deaths from NCDs (2016)

n/a

Cancer as % of NCD premature deaths (2016)

n/a

Most common cancer cases (2018)



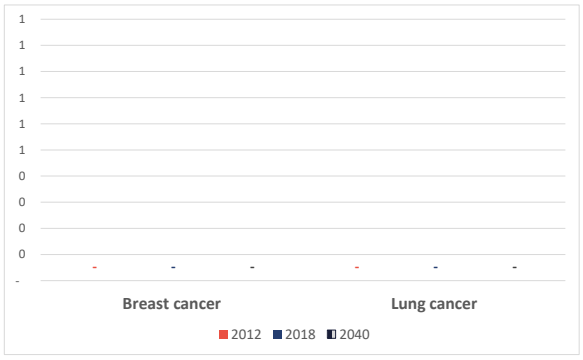
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
n/a	n/a	n/a	n/a	n/a	n/a

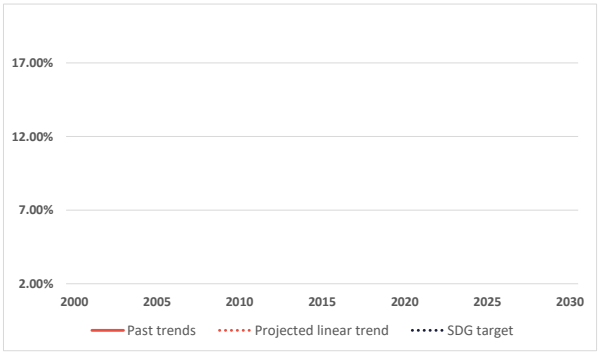
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

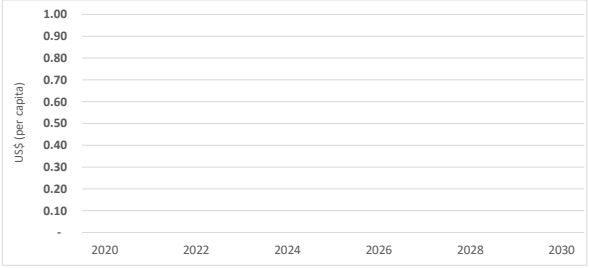


INVESTMENT CASE (2019)

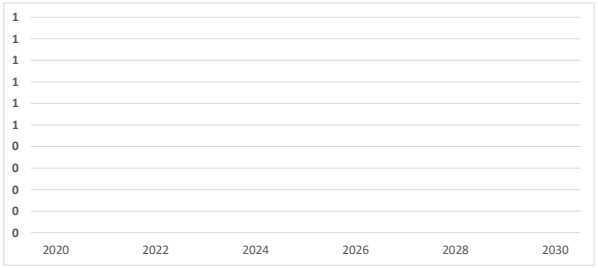
**High income*

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

Costs per year



Projected lives saved per year



SAN MARINO

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	No data
Quality of mortality registration***	2007-2016	No data
# of external beam radiotherapy (photon,electron)[a]	2019	n/a
# of mammographs[a]	2020	n/a
# of CT scanners[a]	2020	n/a
# of MRI scanners[a]	2020	n/a
# of PET or PET/CT scanners[a]	2020	n/a

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	n/a
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	n/a
# of medical & pathology lab scientists[a]	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	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	yes
Breast cancer screening program: Starting age, target population	2019	35

# 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	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	16
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	HPV test
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	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
***The mortality estimates for this country have a high degree of uncertainty because they are not based on any national NCD mortality data

SOMALIA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

15,442,906

Total # cancer cases (2018)	Total # cancer deaths (2018)
9,942	8,198

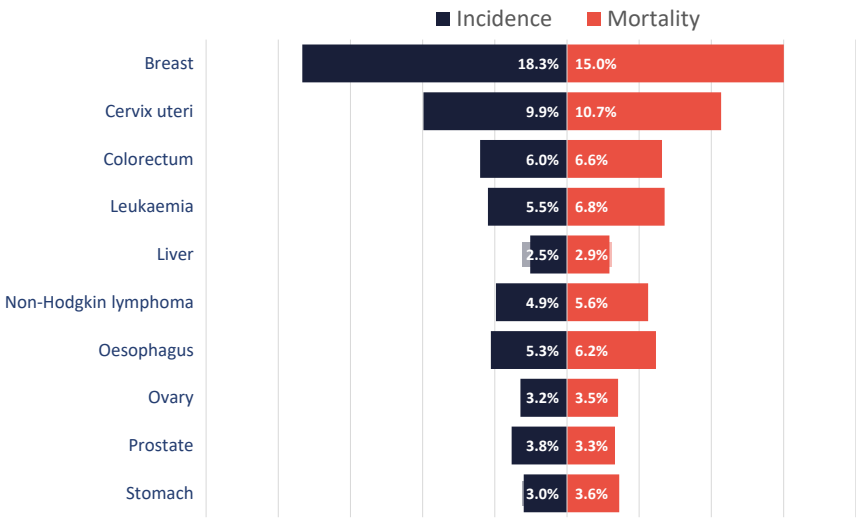
Premature deaths from NCDs (2016)

18,169

Cancer as % of NCD premature deaths (2016)

22.8%

Most common cancer cases (2018)



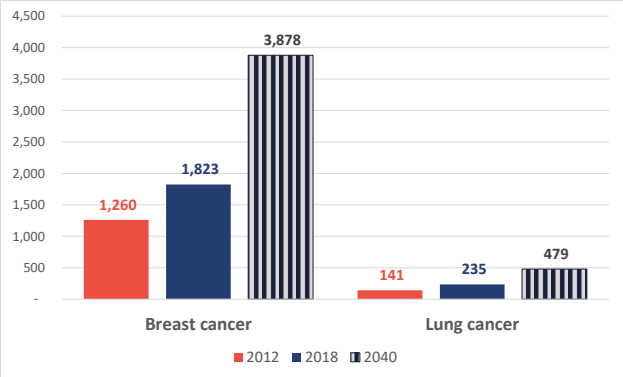
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
7.3%	0.8%	23.7%	1.2%	6.3%	0.7%

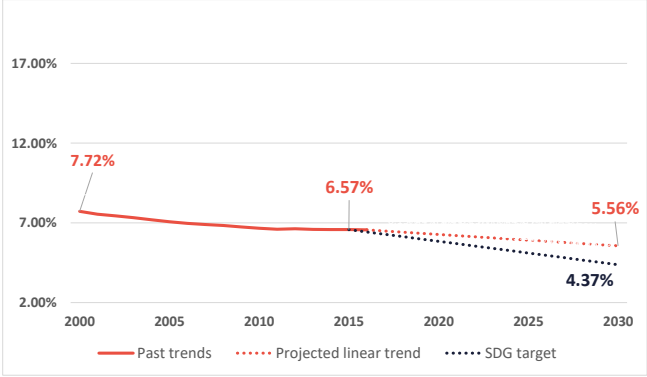
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

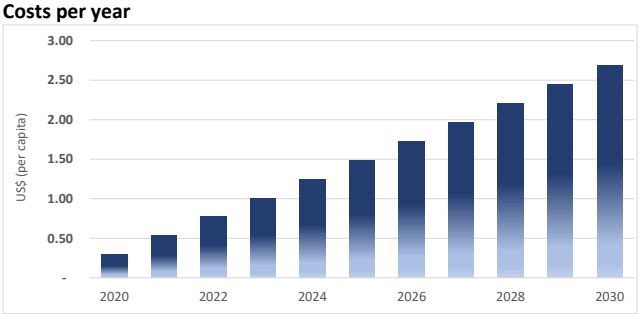


INVESTMENT CASE (2019)

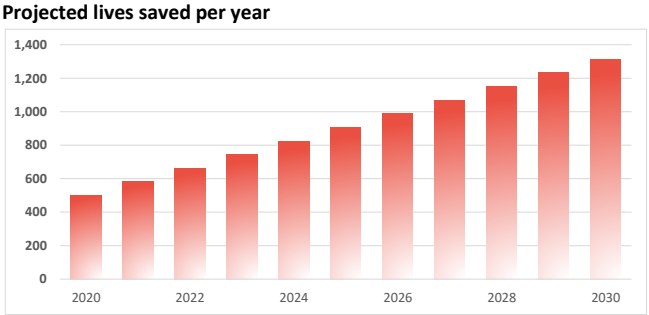
**Low income*

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

Costs per year



Projected lives saved per year



SOMALIA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	0.0
# of mammographs[a]	2020	3.0
# of CT scanners[a]	2020	6.0
# of MRI scanners[a]	2020	2.0
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	15.1
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	0.0
# of medical & pathology lab scientists[a]	2005	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	yes
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 (S-DDD) per miliion inhabitants per day*

GLOBAL INITIATIVES

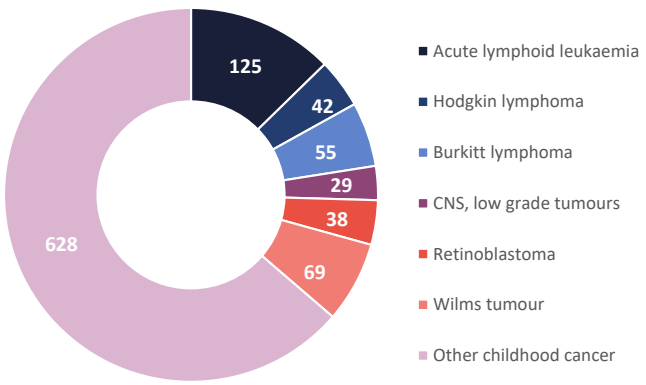
Elimination of Cervical Cancer

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

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	986
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

SERBIA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

8,772,228

Total # cancer cases (2018)	Total # cancer deaths (2018)
47,960	26,919

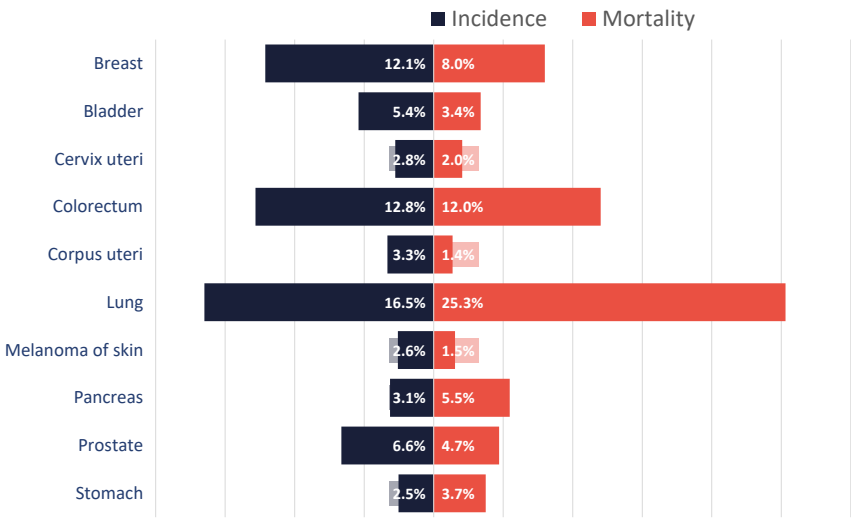
Premature deaths from NCDs (2016)

28,147

Cancer as % of NCD premature deaths (2016)

42.4%

Most common cancer cases (2018)



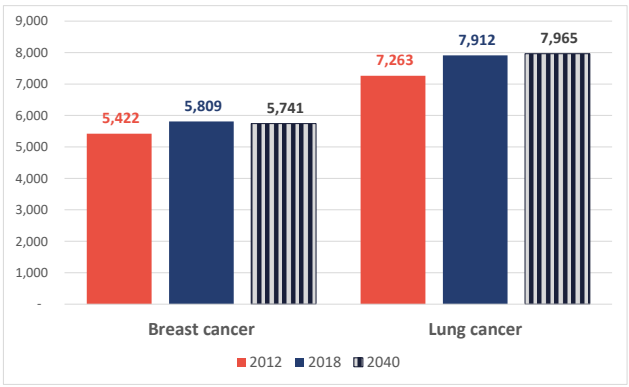
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
33.4%	8.5%	8.9%	5.7%	78.3%	2.4%

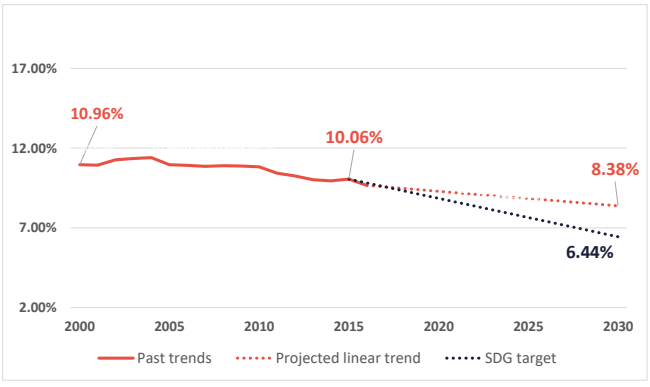
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

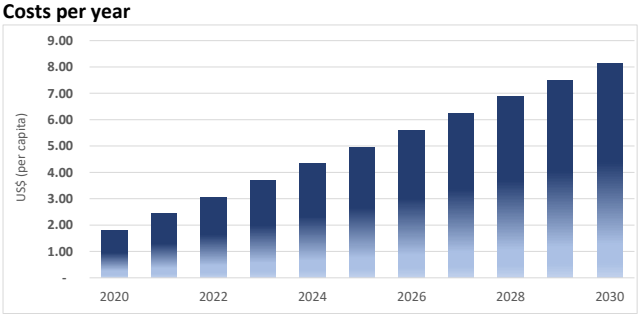


INVESTMENT CASE (2019)

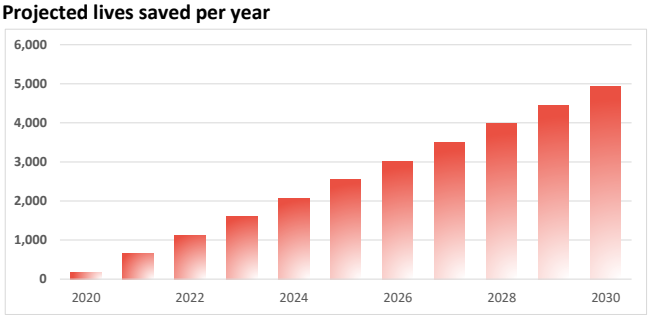
**Upper middle income*

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

Costs per year



Projected lives saved per year



SERBIA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	6.5
# of mammographs[a]	2020	26.1
# of CT scanners[a]	2020	27.1
# of MRI scanners[a]	2020	12.3
# of PET or PET/CT scanners[a]	2020	0.4

WORKFORCE

[a] *per 10,000 cancer patients*

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	don't know
# of radiation oncologist[a]	2019	n/a
# of medical physicist[a]	2019	10.0
# of surgeons[a]	n/a	n/a
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	13.3
# of medical & pathology lab scientists[a]	2016	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	0.8
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	don't know
Palliative care availability: community/home-based care	2019	generally available
Availability of opioids* for pain management	2015-2017	1490

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

GLOBAL INITIATIVES

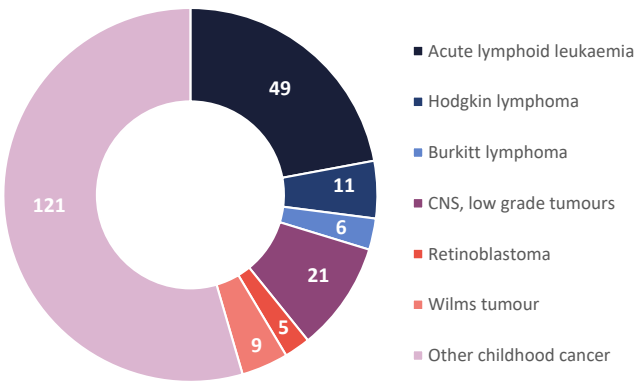
Elimination of Cervical Cancer

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	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	222
Early detection programme/guidelines	2019	no
Defined referral system	2019	yes

Annual cancer cases (0-14 years old)



SOUTH SUDAN

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

11,062,114

Total # cancer cases (2018)	Total # cancer deaths (2018)
9,398	7,309

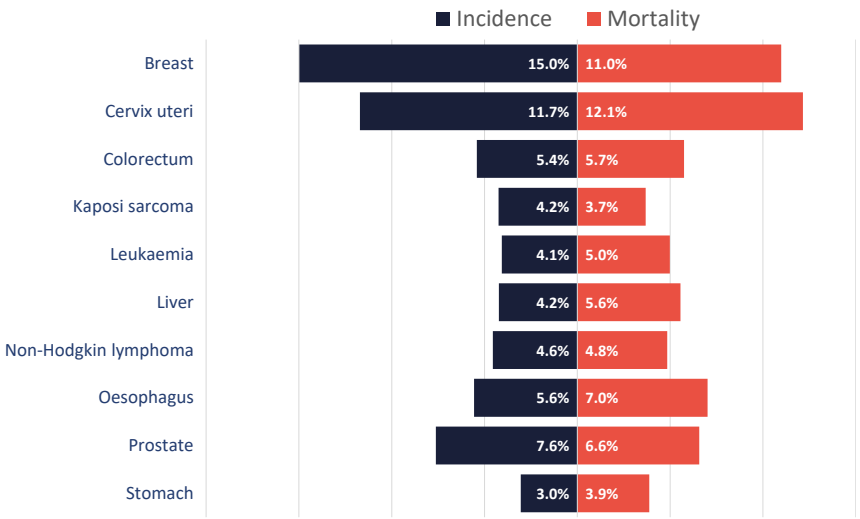
Premature deaths from NCDs (2016)

14,463

Cancer as % of NCD premature deaths (2016)

35.9%

Most common cancer cases (2018)



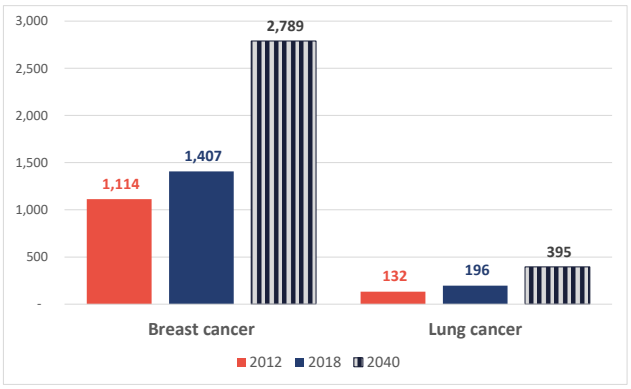
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
8.4%	5.4%	28.9%	1.1%	27.6%	0.6%

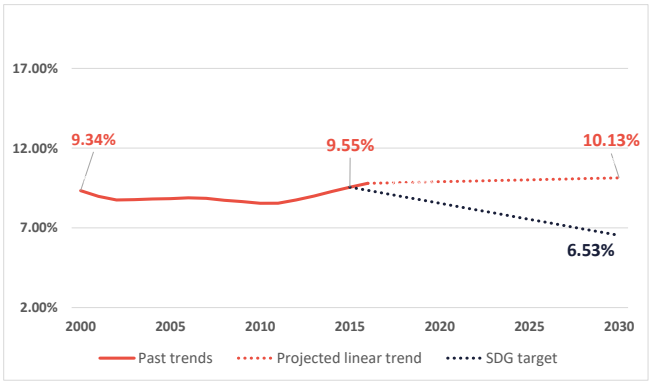
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

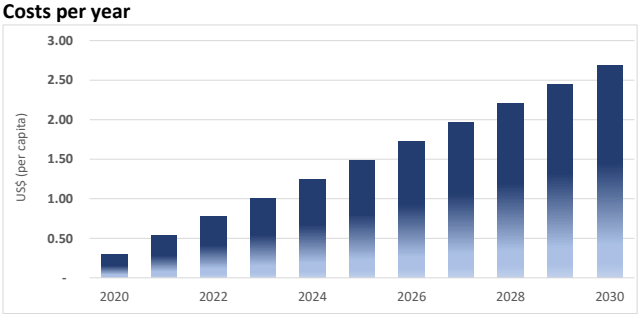


INVESTMENT CASE (2019)

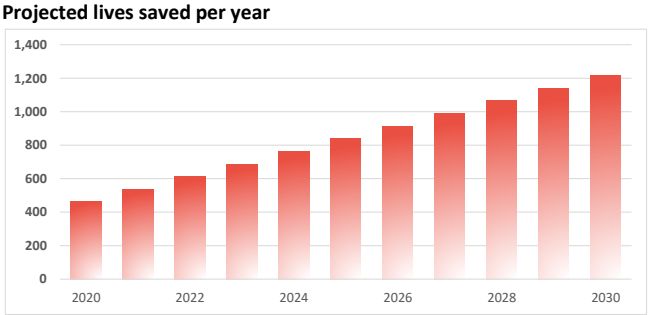
**Low income*

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

Costs per year



Projected lives saved per year



SOUTH SUDAN

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	0.0
# of mammographs[a]	2020	n/a
# of CT scanners[a]	2020	n/a
# of MRI scanners[a]	2020	n/a
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2013	16.0
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	n/a
# of medical & pathology lab scientists[a]	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	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	-
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 miliion inhabitants per day*

GLOBAL INITIATIVES

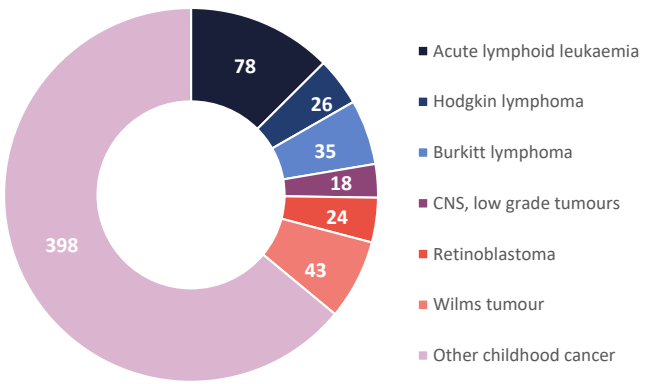
Elimination of Cervical Cancer

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

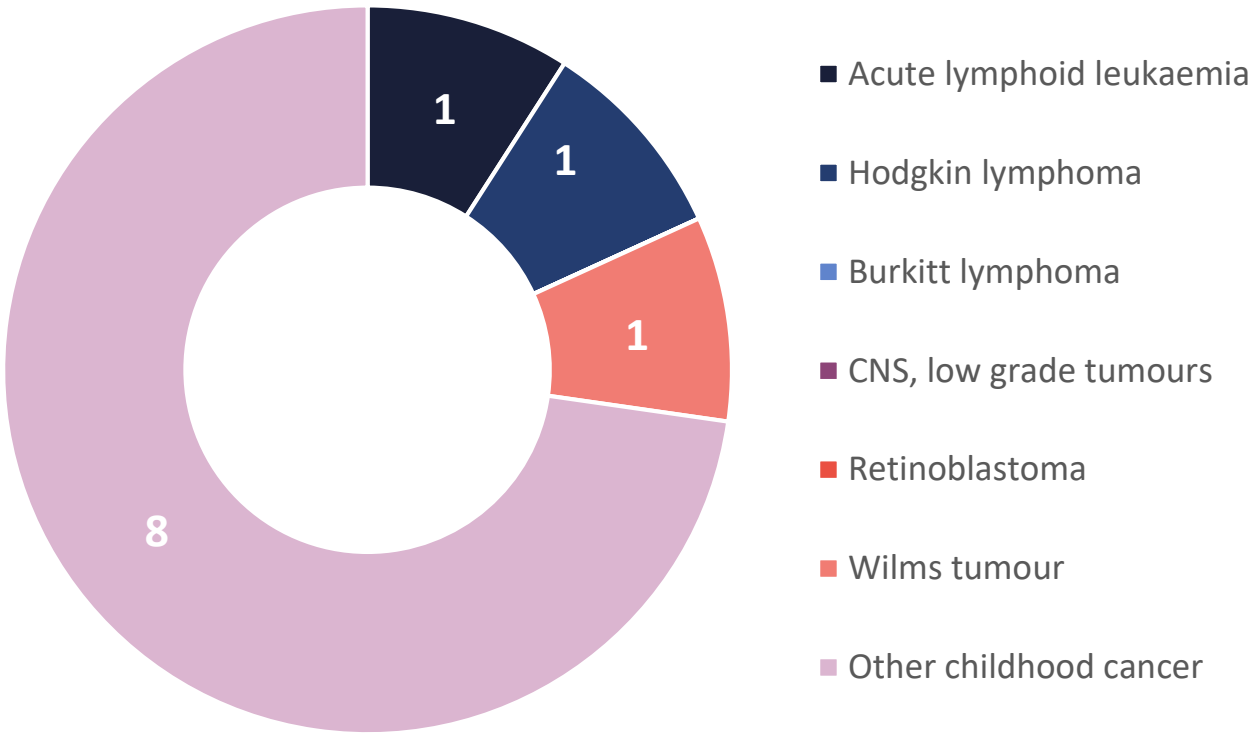
Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	622
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


1
1
1
8
Acute lymphoid leukaemia
Hodgkin lymphoma
Burkitt lymphoma
CNS, low grade tumours
Retinoblastoma
Wilms tumour
Other childhood cancer

SURINAME

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

581,363

Total # cancer cases (2018)	Total # cancer deaths (2018)
1,042	624

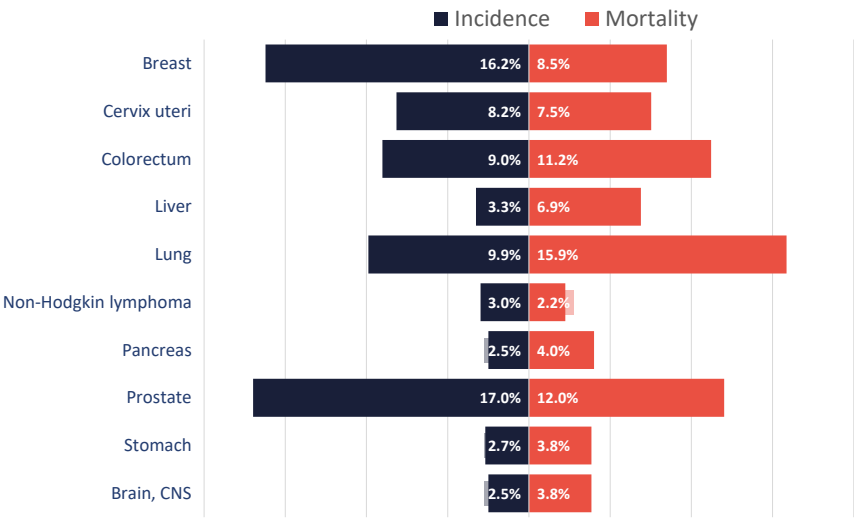
Premature deaths from NCDs (2016)

1,346

Cancer as % of NCD premature deaths (2016)

24.0%

Most common cancer cases (2018)



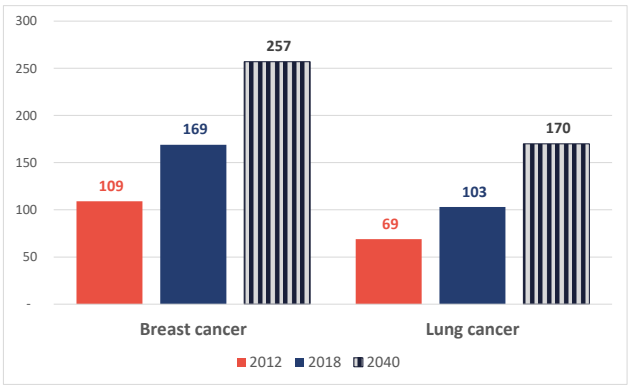
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
17.9%	4.1%	20.2%	3.7%	n/a	1.4%

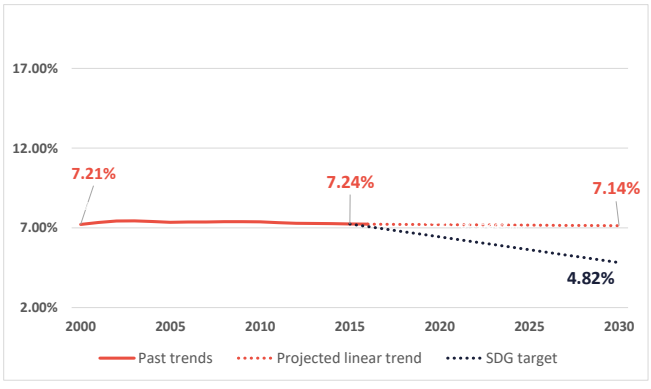
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

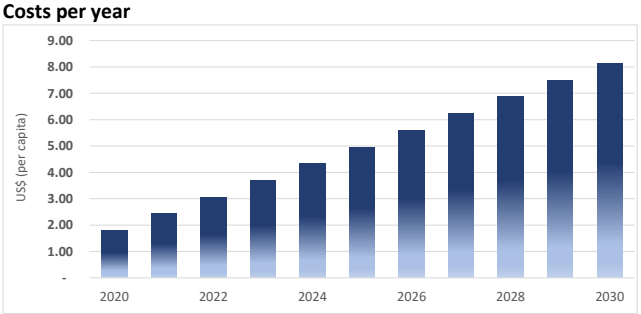


INVESTMENT CASE (2019)

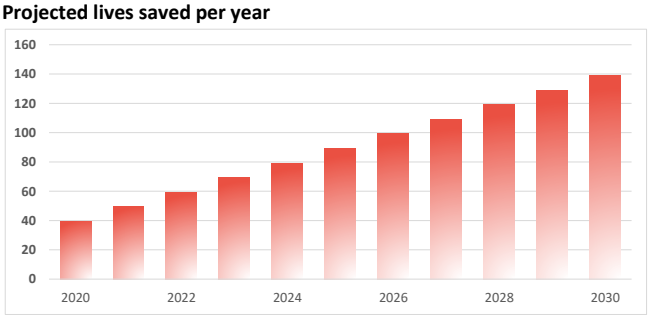
**Upper middle income*

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

Costs per year



Projected lives saved per year



SURINAME

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	19.2
# of mammographs[a]	2020	38.4
# of CT scanners[a]	2020	38.4
# of MRI scanners[a]	2020	19.2
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] *per 10,000 cancer patients*

Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	don't know
# of radiation oncologist[a]	2019	19.2
# of medical physicist[a]	2019	n/a
# of surgeons[a]	n/a	n/a
# of radiologist[a]	2019	96.0
# of nuclear medicine physician[a]	2019	9.6
# of medical & pathology lab scientists[a]	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	3
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	9.6
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 not available
Availability of opioids* for pain management	2015-2017	196

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

GLOBAL INITIATIVES

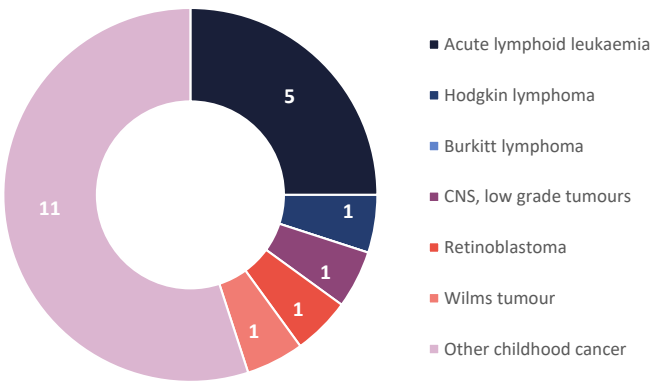
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	38.1
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	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	20
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

SLOVAKIA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

5,457,012

Total # cancer cases (2018)	Total # cancer deaths (2018)
29,245	15,587

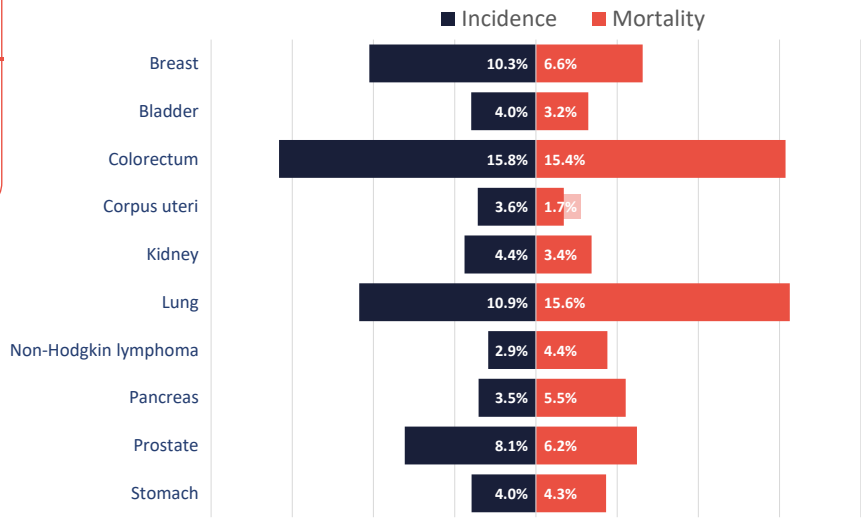
Premature deaths from NCDs (2016)

15,595

Cancer as % of NCD premature deaths (2016)

44.4%

Most common cancer cases (2018)



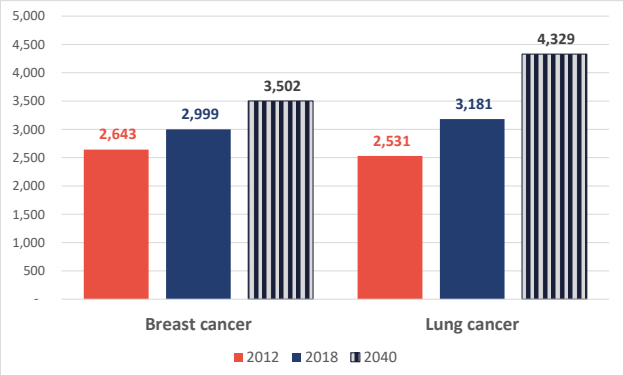
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
27.4%	11.8%	8.0%	6.8%	86.1%	1.8%

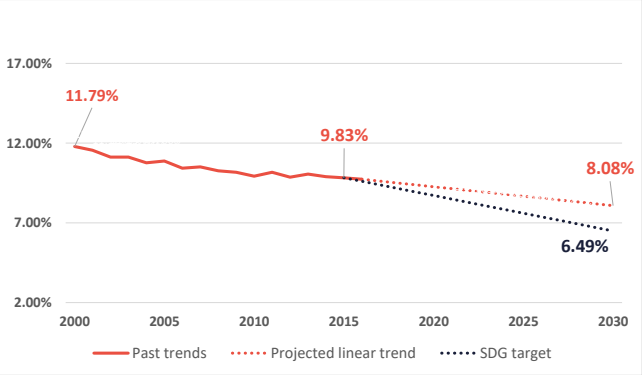
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

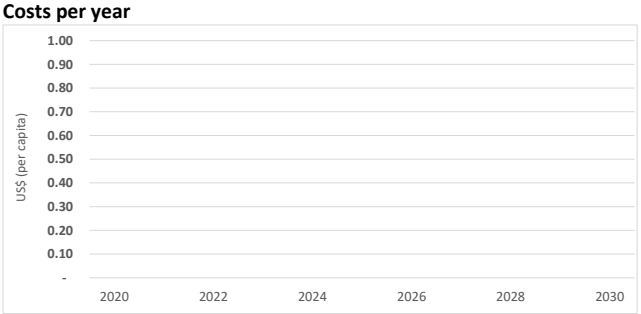


INVESTMENT CASE (2019)

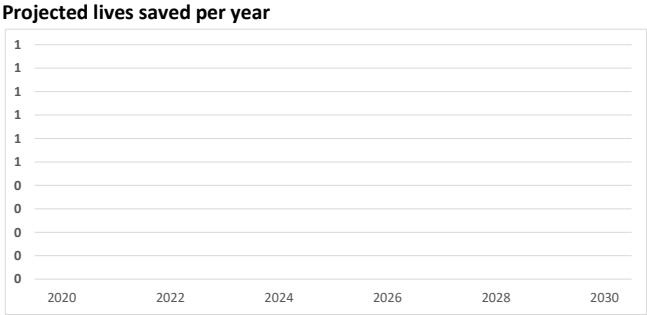
**High income*

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

Costs per year



Projected lives saved per year



SLOVAKIA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	6.8
# of mammographs[a]	2020	35.6
# of CT scanners[a]	2020	46.5
# of MRI scanners[a]	2020	17.4
# of PET or PET/CT scanners[a]	2020	2.7

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	10.3
# of surgeons[a]	2014	342.3
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	18.1
# of medical & pathology lab scientists[a]	2015	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	4.1
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	4602

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

GLOBAL INITIATIVES

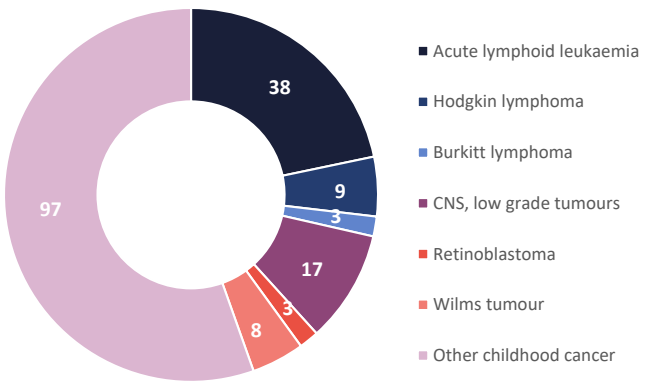
Elimination of Cervical Cancer

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	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	175
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Annual cancer cases (0-14 years old)



SLOVENIA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

2,078,654

Total # cancer cases (2018)	Total # cancer deaths (2018)
13,503	6,396

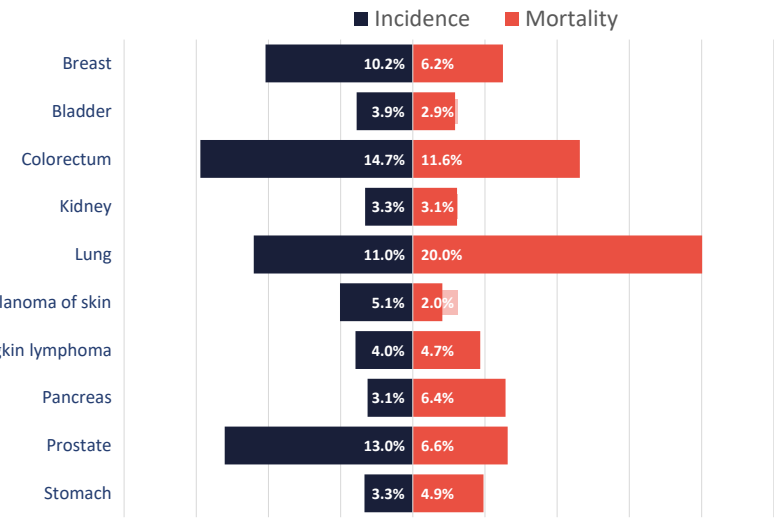
Premature deaths from NCDs (2016)

4,414

Cancer as % of NCD premature deaths (2016)

54.8%

Most common cancer cases (2018)



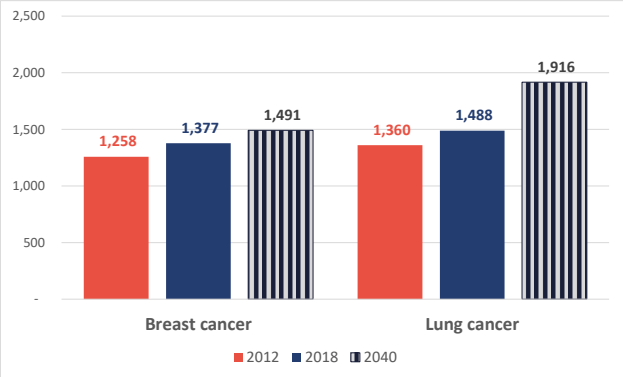
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
27.1%	8.3%	6.9%	5.9%	90.2%	5.3%

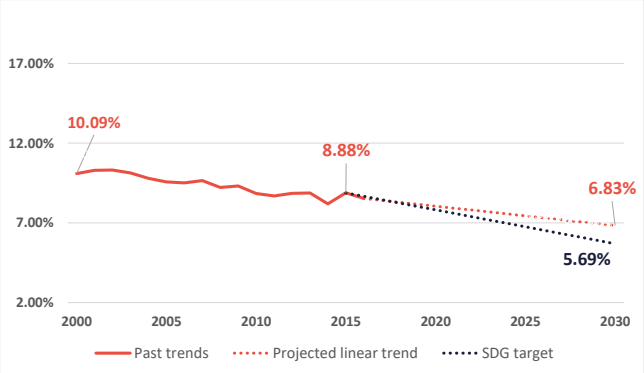
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

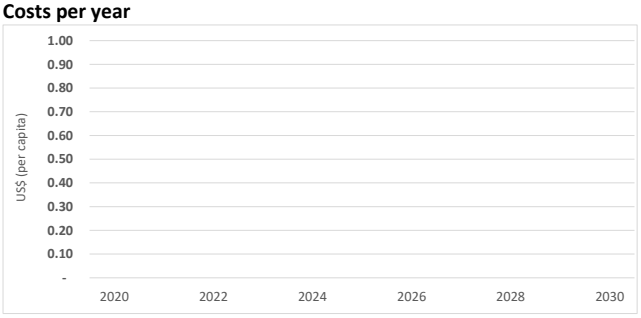


INVESTMENT CASE (2019)

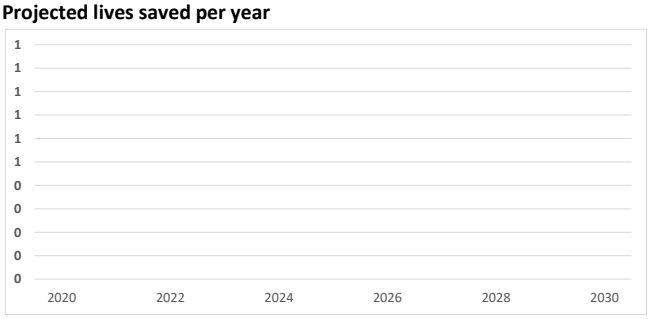
**High income*

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

Costs per year



Projected lives saved per year



SLOVENIA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	7.4
# of mammographs[a]	2020	27.4
# of CT scanners[a]	2020	30.4
# of MRI scanners[a]	2020	25.2
# of PET or PET/CT scanners[a]	2020	2.2

WORKFORCE

[a] *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[a]	2019	23.0
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2013	631.7
# of radiologist[a]	2019	199.0
# of nuclear medicine physician[a]	2019	28.1
# of medical & pathology lab scientists[a]	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	50

# Public cancer centres per 10,000 cancer patients	2019	1.5
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	5378

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

GLOBAL INITIATIVES

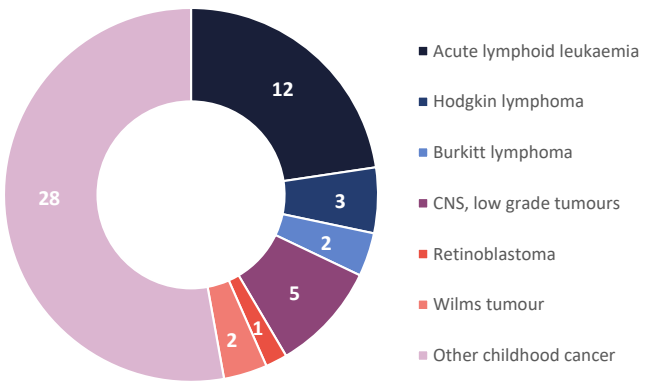
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	45
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	no

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	53
Early detection programme/guidelines	2019	no
Defined referral system	2019	yes

Annual cancer cases (0-14 years old)



SWEDEN

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

10,036,391

Total # cancer cases (2018)	Total # cancer deaths (2018)
60,853	23,865

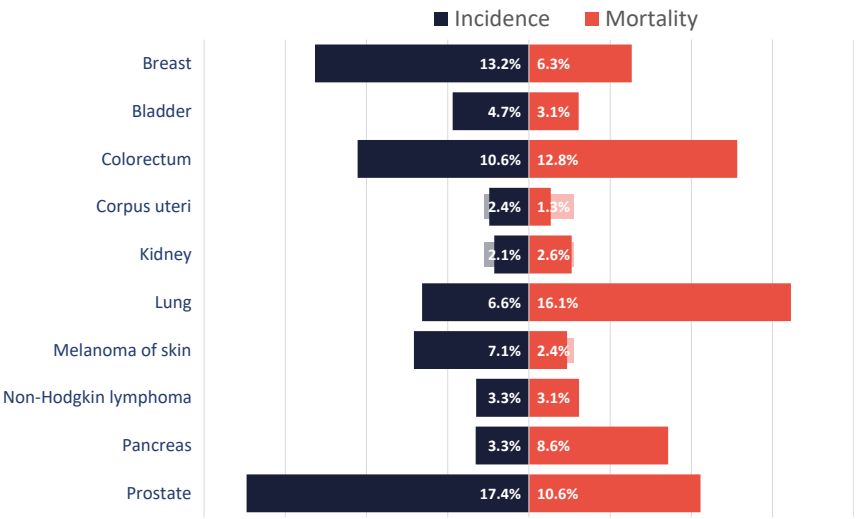
Premature deaths from NCDs (2016)

14,043

Cancer as % of NCD premature deaths (2016)

46.5%

Most common cancer cases (2018)



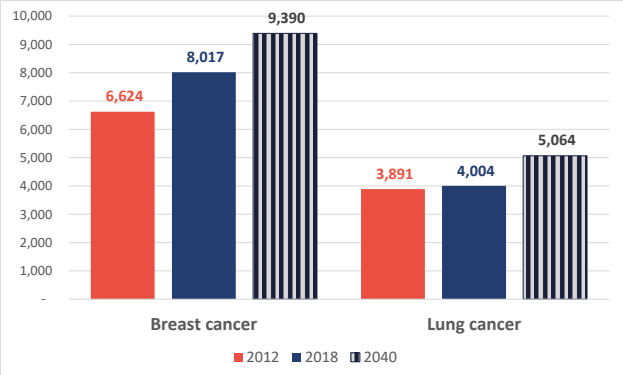
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
22.9%	6.0%	3.6%	4.5%	91.7%	4.9%

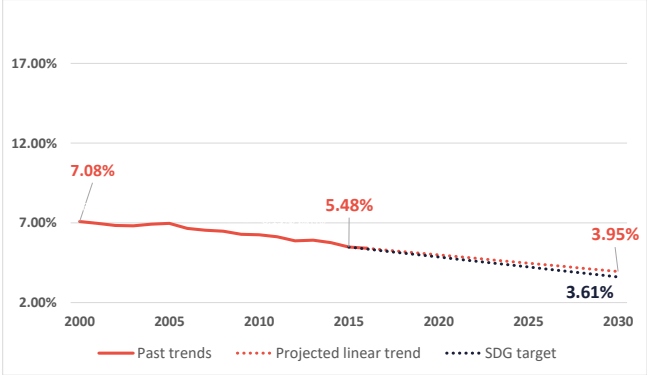
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

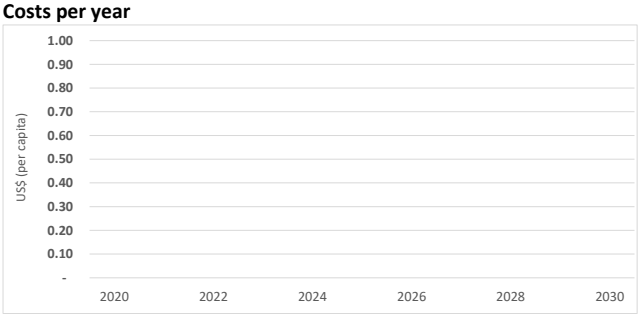


INVESTMENT CASE (2019)

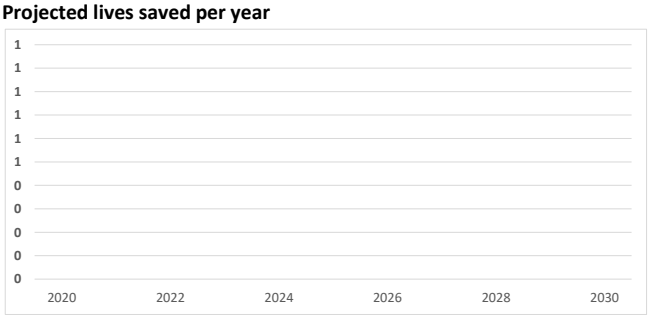
**High income*

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

Costs per year



Projected lives saved per year



SWEDEN

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	11.0
# of mammographs[a]	2020	22.7
# of CT scanners[a]	2020	41.6
# of MRI scanners[a]	2020	30.4
# of PET or PET/CT scanners[a]	2020	2.6

WORKFORCE

[a] *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[a]	2019	109.9
# of medical physicist[a]	2019	49.3
# of surgeons[a]	2013	642.4
# of radiologist[a]	2019	251.0
# of nuclear medicine physician[a]	2019	12.0
# of medical & pathology lab scientists[a]	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	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	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	8911

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

GLOBAL INITIATIVES

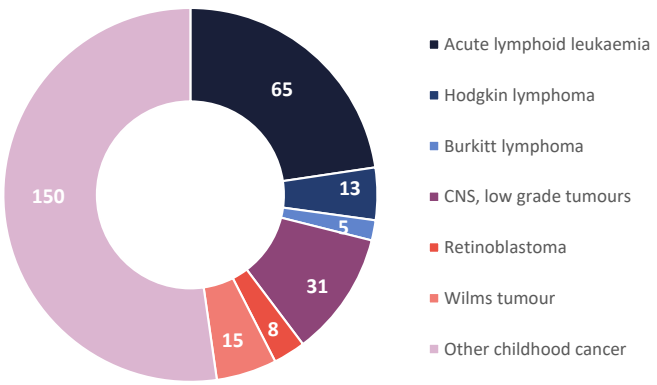
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	75
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	287
Early detection programme/guidelines	2019	don't know
Defined referral system	2019	don't know

Annual cancer cases (0-14 years old)



ESWATINI

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

1,148,133

Total # cancer cases (2018)	Total # cancer deaths (2018)
1,074	660

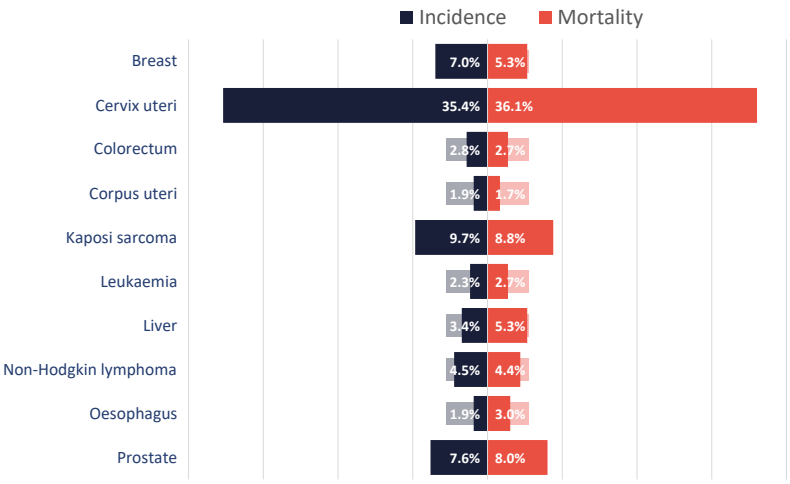
Premature deaths from NCDs (2016)

2,031

Cancer as % of NCD premature deaths (2016)

20.1%

Most common cancer cases (2018)



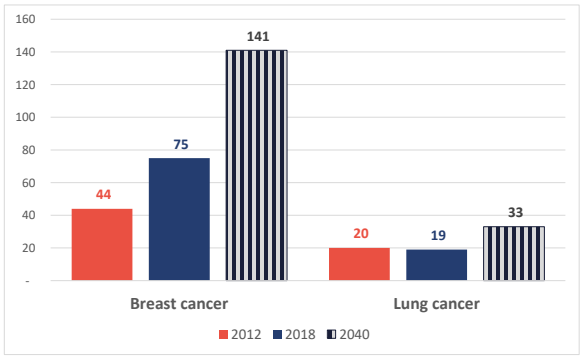
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
n/a	6.3%	54.8%	n/a	n/a	3.0%

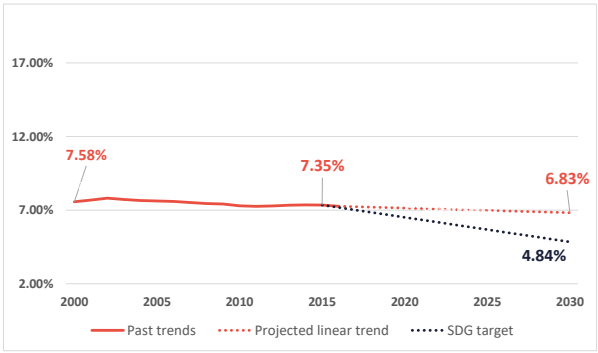
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

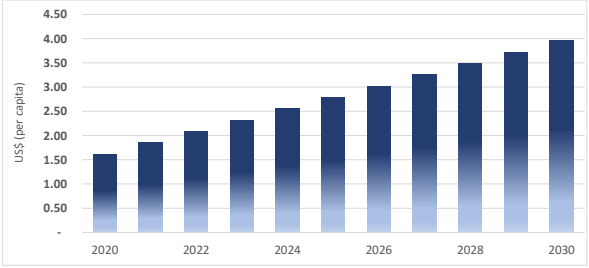


INVESTMENT CASE (2019)

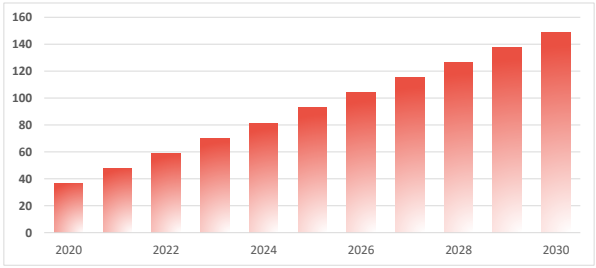
**Lower middle income*

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

Costs per year



Projected lives saved per year



ESWATINI

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	0.0
# of mammographs[a]	2020	n/a
# of CT scanners[a]	2020	n/a
# of MRI scanners[a]	2020	n/a
# of PET or PET/CT scanners[a]	2020	n/a

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	n/a	n/a
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	0.0
# of medical & pathology lab scientists[a]	2011	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	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	9.3
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 available
Availability of opioids* for pain management	2015-2017	89

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

GLOBAL INITIATIVES

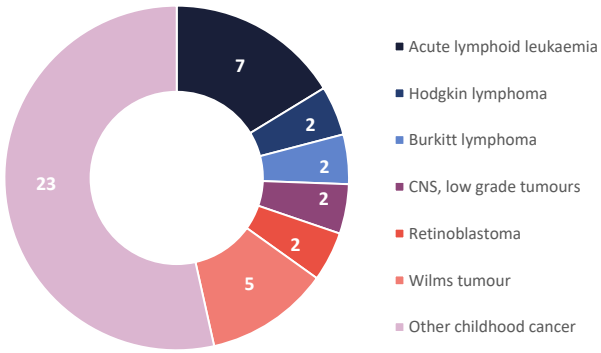
Elimination of Cervical Cancer

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	don't know

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	43
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

SEYCHELLES

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

97,741

Total # cancer cases (2018)	Total # cancer deaths (2018)
n/a	n/a

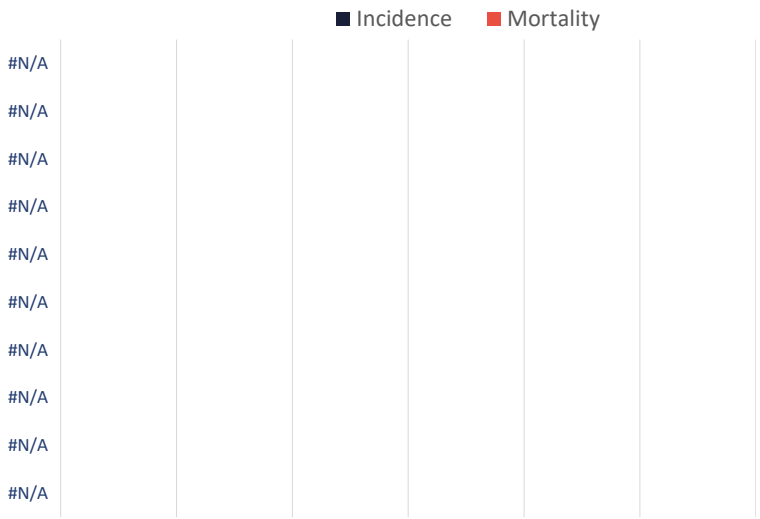
Premature deaths from NCDs (2016)

295

Cancer as % of NCD premature deaths (2016)

26.3%

Most common cancer cases (2018)



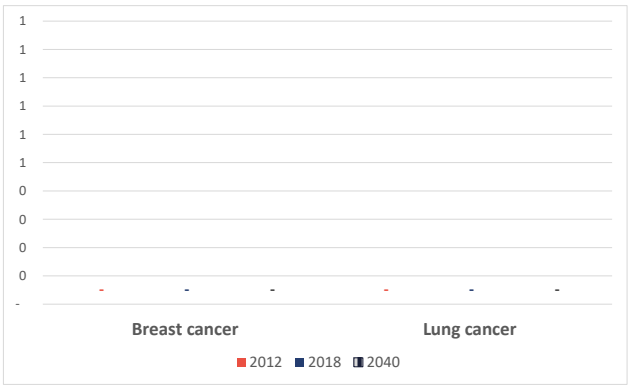
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
20.2%	10.7%	n/a	n/a	n/a	1.4%

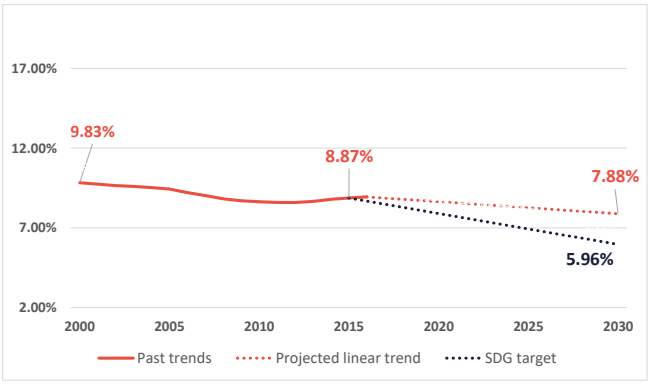
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

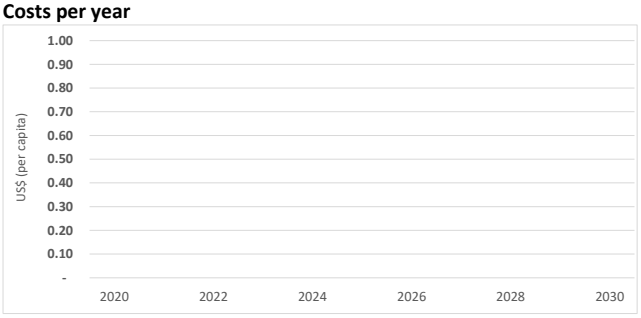


INVESTMENT CASE (2019)

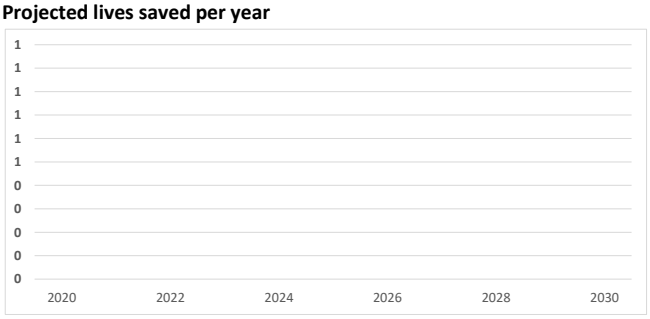
**High income*

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

Costs per year



Projected lives saved per year



SEYCHELLES

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	n/a
# of mammographs[a]	2020	n/a
# of CT scanners[a]	2020	n/a
# of MRI scanners[a]	2020	n/a
# of PET or PET/CT scanners[a]	2020	n/a

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	n/a
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	n/a
# of medical & pathology lab scientists[a]	2004	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	operational
NCCP (including cancer types)	2019	under development
MPOWER measures fully implemented and achieved	2018	3
Cancer management guidelines	2019	no
Palliative care included in their operational, integrated NCD plan	2019	yes
# 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 not available
Availability of opioids* for pain management	2015-2017	237

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

GLOBAL INITIATIVES

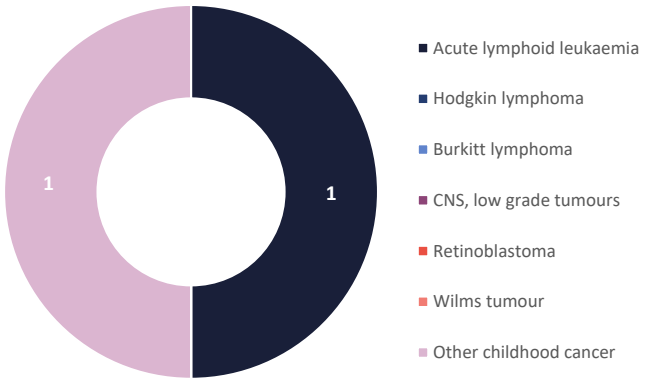
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	99
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)



SYRIAN ARAB REPUBLIC

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

17,070,132

Total # cancer cases (2018)	Total # cancer deaths (2018)
23,170	14,042

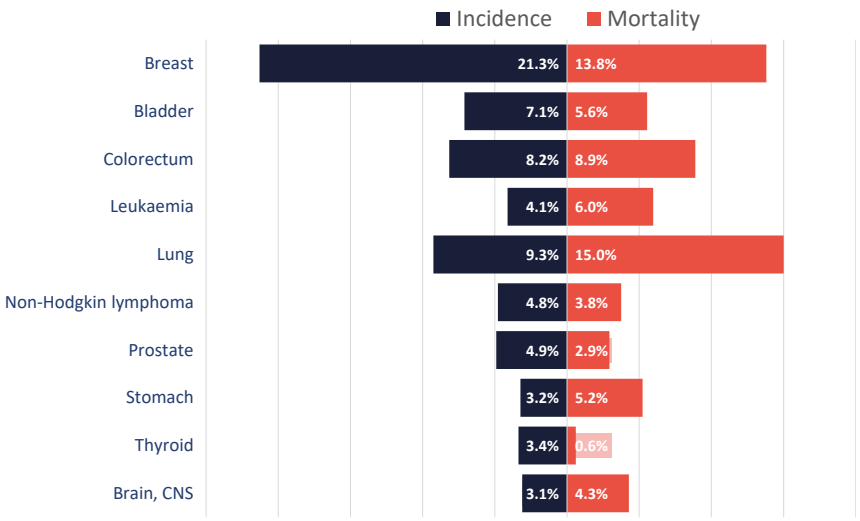
Premature deaths from NCDs (2016)

26,788

Cancer as % of NCD premature deaths (2016)

31.2%

Most common cancer cases (2018)



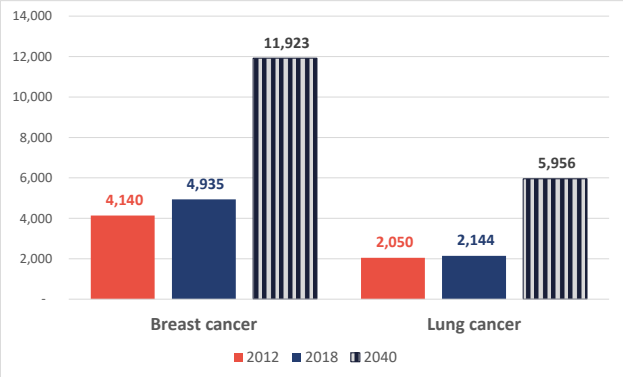
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
n/a	0.7%	9.0%	5.5%	0.0%	1.6%

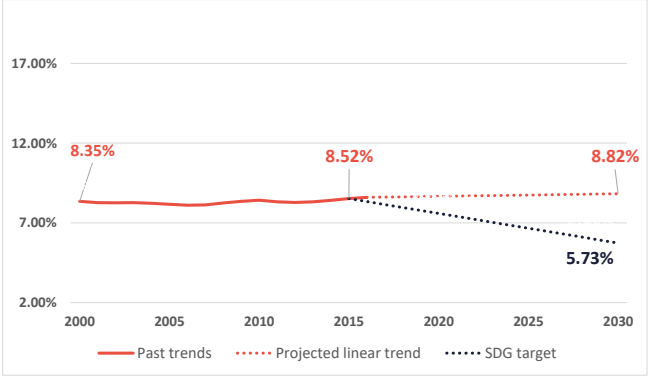
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

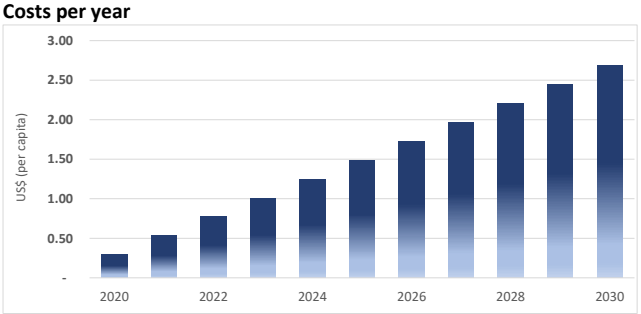


INVESTMENT CASE (2019)

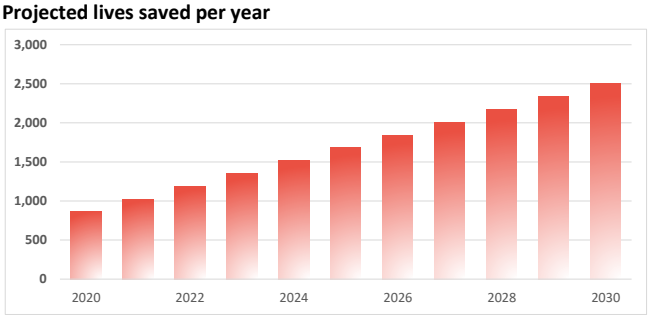
**Low income*

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

Costs per year



Projected lives saved per year



SYRIAN ARAB REPUBLIC

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	3.0
# of mammographs[a]	2020	n/a
# of CT scanners[a]	2020	25.9
# of MRI scanners[a]	2020	19.4
# of PET or PET/CT scanners[a]	2020	0.9

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	12.9
# of surgeons[a]	n/a	n/a
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	4.3
# of medical & pathology lab scientists[a]	n/a	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	n/a
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	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	35

# Public cancer centres per 10,000 cancer patients	2019	3.0
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	47

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

GLOBAL INITIATIVES

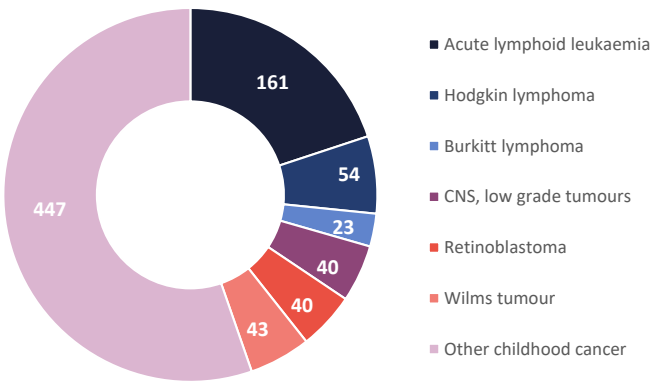
Elimination of Cervical Cancer

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	808
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

CHAD

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

15,946,882

Total # cancer cases (2018)	Total # cancer deaths (2018)
7,491	5,616

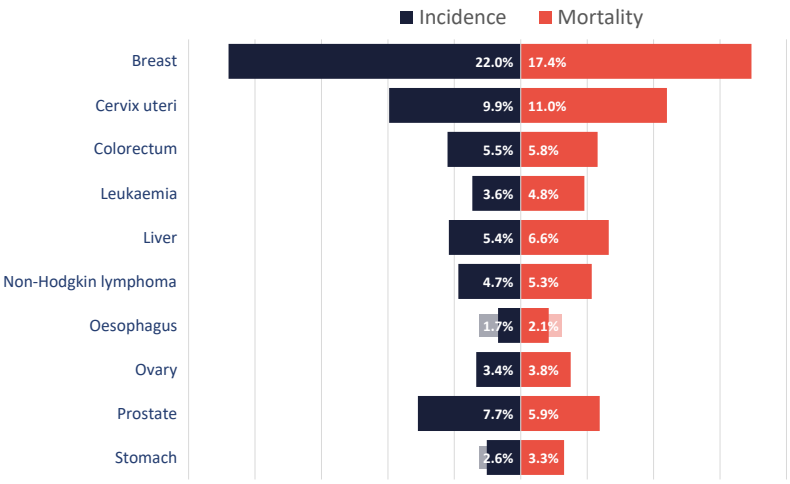
Premature deaths from NCDs (2016)

21,043

Cancer as % of NCD premature deaths (2016)

16.7%

Most common cancer cases (2018)



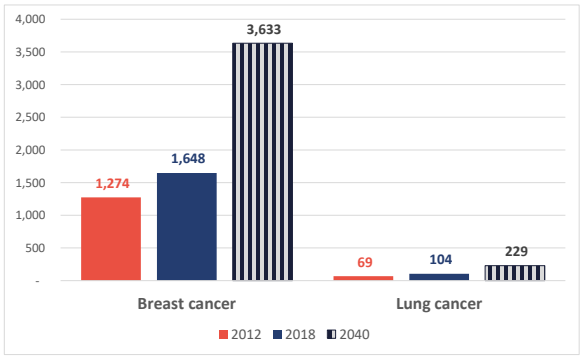
PAFs (population attributable fractions)

5.3%	5.3%	24.3%	0.7%	4.5%	0.7%
Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]

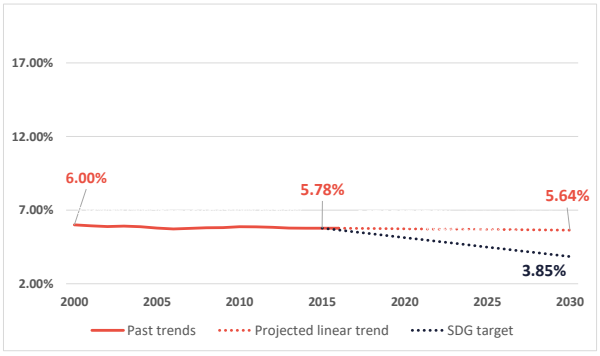
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

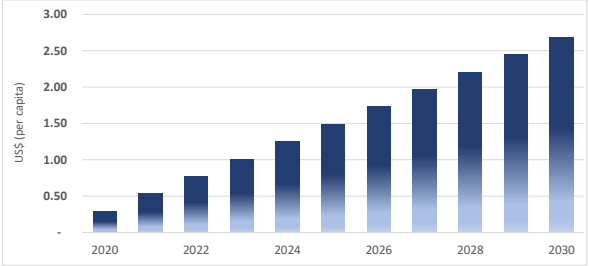


INVESTMENT CASE (2019)

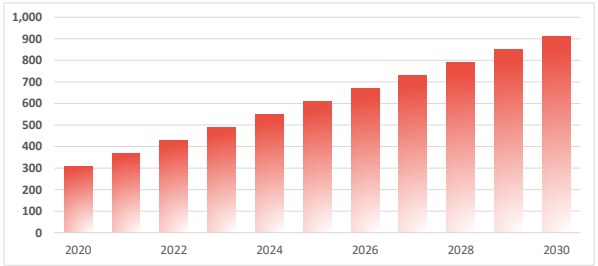
**Low income*

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

Costs per year



Projected lives saved per year



CHAD

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	0.0
# of mammographs[a]	2020	20.0
# of CT scanners[a]	2020	4.0
# of MRI scanners[a]	2020	1.3
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2013	24.0
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	0.0
# of medical & pathology lab scientists[a]	2004	148.2

FORMULATING RESPONSE

Integrated NCD plan	2019	operational
NCCP (including cancer types)	2019	not in effect
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	-
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	1

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

GLOBAL INITIATIVES

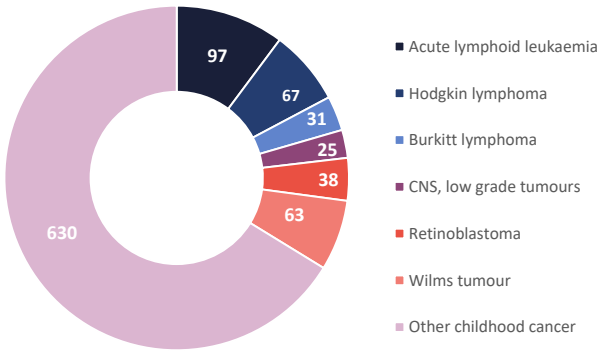
Elimination of Cervical Cancer

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	951
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

TOGO

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

8,082,359

Total # cancer cases (2018)	Total # cancer deaths (2018)
4,745	3,301

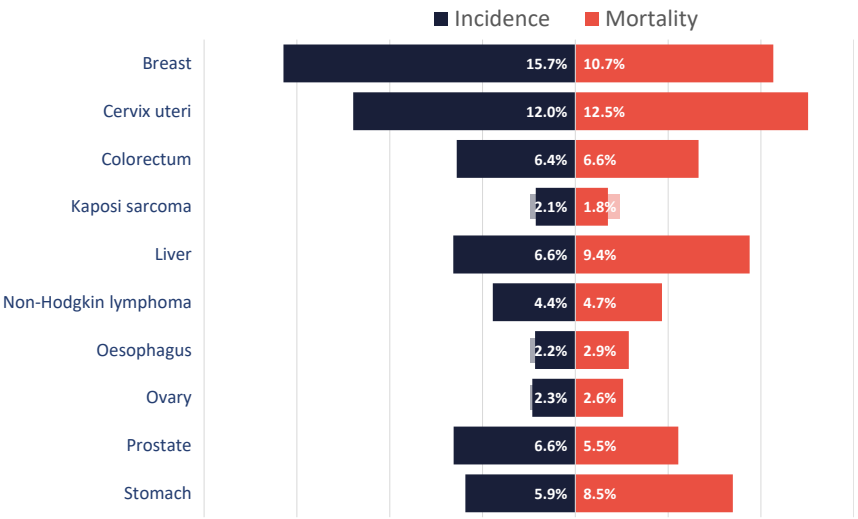
Premature deaths from NCDs (2016)

11,463

Cancer as % of NCD premature deaths (2016)

18.6%

Most common cancer cases (2018)



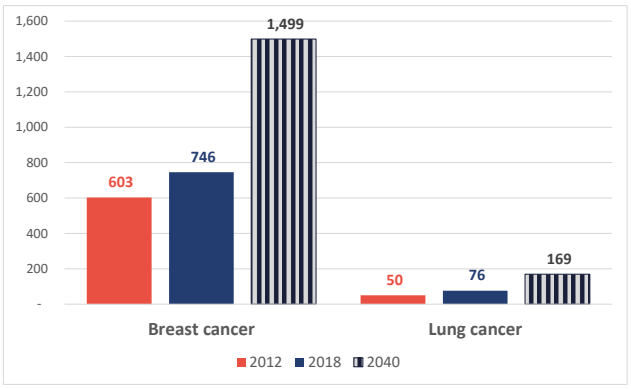
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
8.0%	4.5%	31.7%	0.9%	13.6%	0.8%

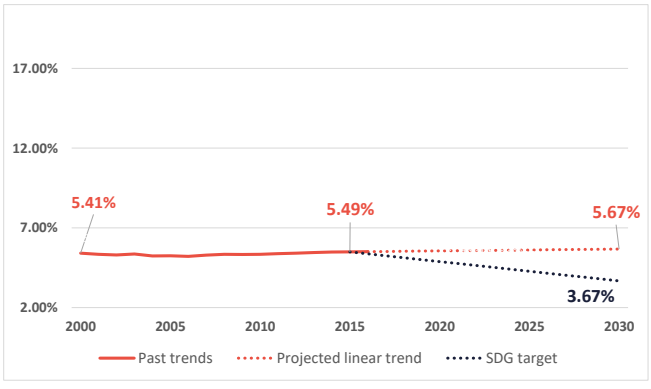
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

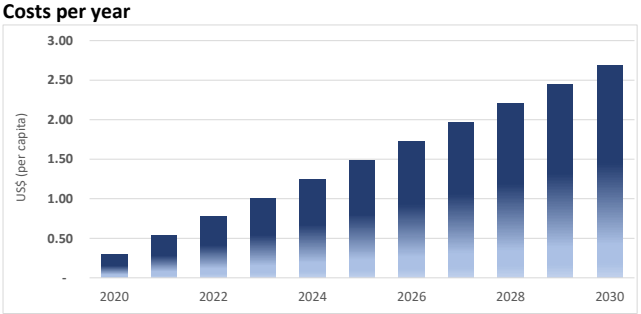


INVESTMENT CASE (2019)

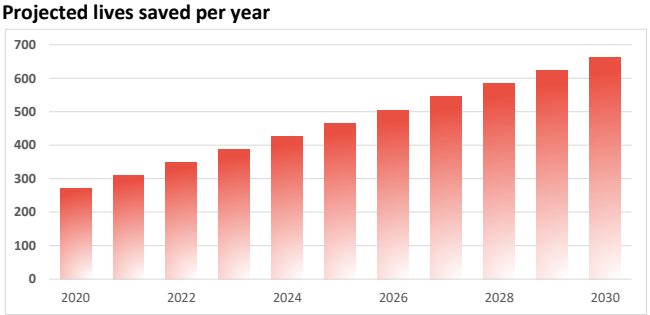
**Low income*

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

Costs per year



Projected lives saved per year



TOGO

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	0.0
# of mammographs[a]	2020	19.0
# of CT scanners[a]	2020	16.9
# of MRI scanners[a]	2020	2.1
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	42.1
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	0.0
# of medical & pathology lab scientists[a]	2015	857.7

FORMULATING RESPONSE

Integrated NCD plan	2019	under development
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	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	n/a
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 not available
Availability of opioids* for pain management	2015-2017	3

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

GLOBAL INITIATIVES

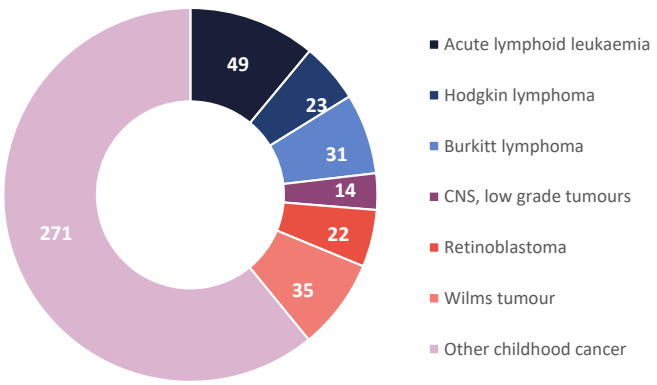
Elimination of Cervical Cancer

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	445
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

THAILAND

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

69,625,581

Total # cancer cases (2018)	Total # cancer deaths (2018)
170,495	114,199

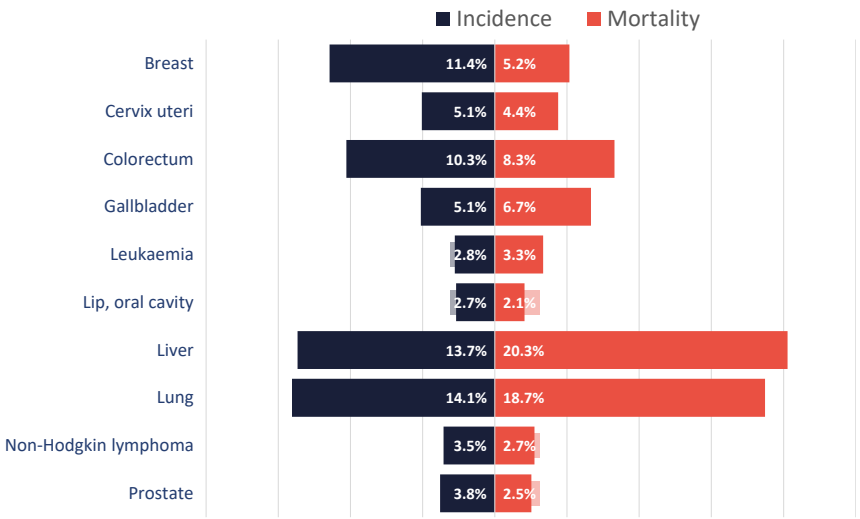
Premature deaths from NCDs (2016)

165,478

Cancer as % of NCD premature deaths (2016)

36.1%

Most common cancer cases (2018)



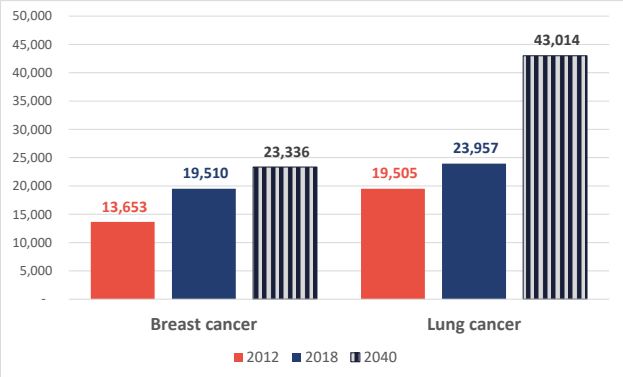
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
23.4%	8.4%	23.6%	2.0%	0.0%	2.4%

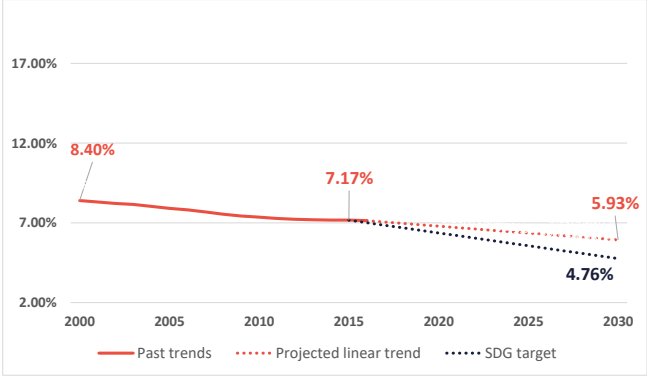
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

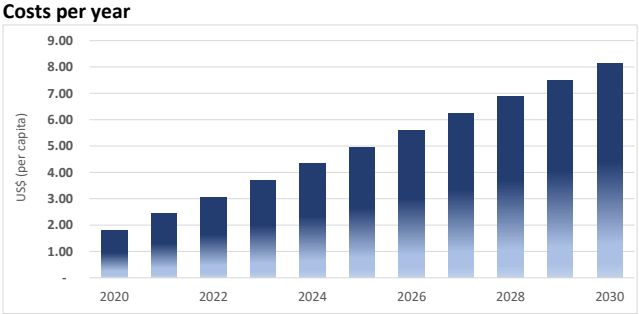


INVESTMENT CASE (2019)

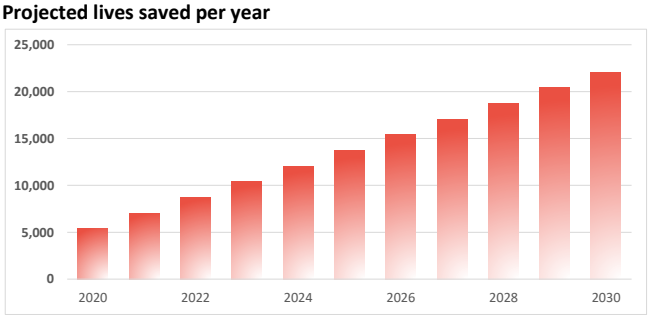
**Upper middle income*

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

Costs per year



Projected lives saved per year



THAILAND

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	5.9
# of mammographs[a]	2020	12.6
# of CT scanners[a]	2020	24.1
# of MRI scanners[a]	2020	3.7
# of PET or PET/CT scanners[a]	2020	0.6

WORKFORCE

[a] *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[a]	2019	4.2
# of medical physicist[a]	2019	8.8
# of surgeons[a]	2014	251.3
# of radiologist[a]	2019	80.9
# of nuclear medicine physician[a]	2019	3.0
# of medical & pathology lab scientists[a]	2016	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	operational
NCCP (including cancer types)	2019	operational
MPOWER measures fully implemented and achieved	2018	3
Cancer management guidelines	2019	yes
Palliative care included in their operational, integrated NCD plan	2019	yes
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3
Breast cancer screening program	2019	yes
Breast cancer screening program: Starting age, target population	2019	30

# Public cancer centres per 10,000 cancer patients	2019	3.6
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
Pathology services	2019	generally available
Bone marrow transplantation capacity	2019	generally not available
Palliative care availability: community/home-based care	2019	generally available
Availability of opioids* for pain management	2015-2017	143

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

GLOBAL INITIATIVES

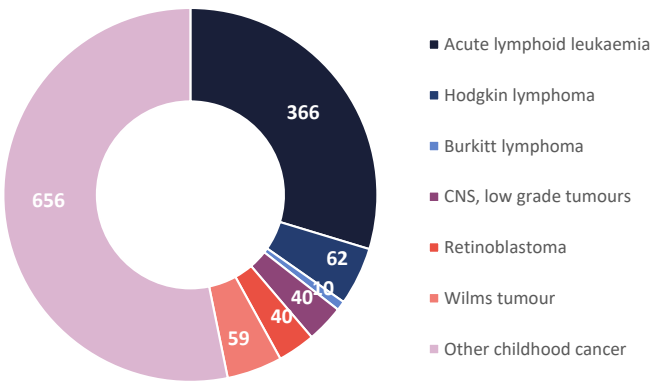
Elimination of Cervical Cancer

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	1233
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

TAJIKISTAN

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

9,321,023

Total # cancer cases (2018)	Total # cancer deaths (2018)
5,568	4,020

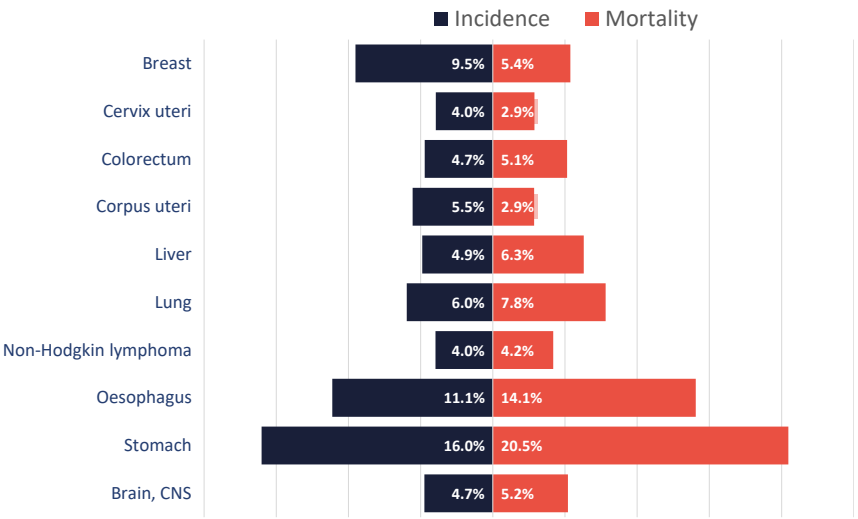
Premature deaths from NCDs (2016)

12,792

Cancer as % of NCD premature deaths (2016)

22.6%

Most common cancer cases (2018)



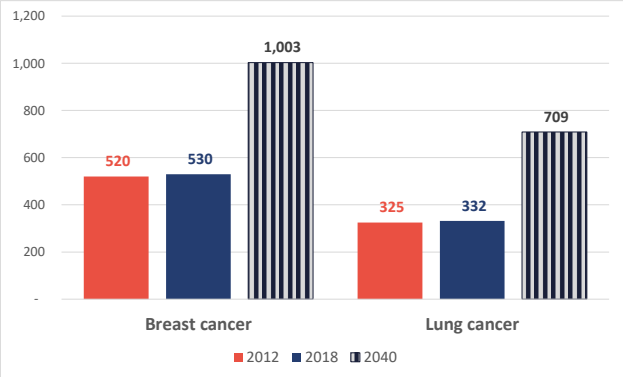
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
13.3%	6.6%	22.4%	2.6%	27.3%	0.8%

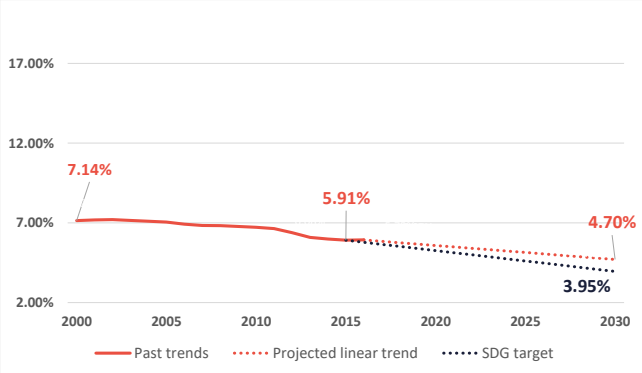
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

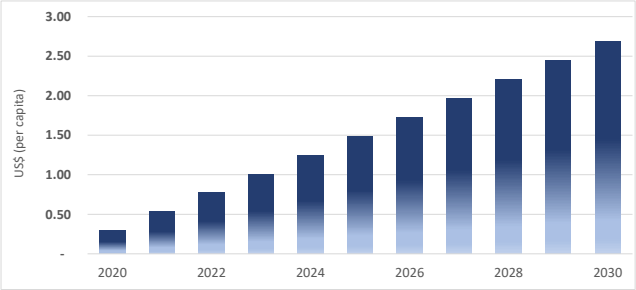


INVESTMENT CASE (2019)

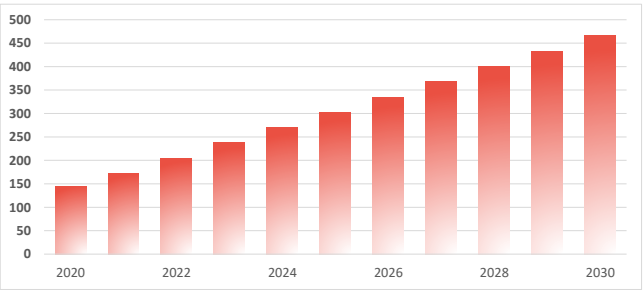
**Low income*

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

Costs per year



Projected lives saved per year



TAJIKISTAN

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	1.8
# of mammographs[a]	2020	9.0
# of CT scanners[a]	2020	18.0
# of MRI scanners[a]	2020	12.6
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	2350.9
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	0.0
# of medical & pathology lab scientists[a]	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	no
Breast cancer screening program: Starting age, target population	2019	n/a

# Public cancer centres per 10,000 cancer patients	2019	3.6
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 available
Palliative care availability: community/home-based care	2019	generally available
Availability of opioids* for pain management	2015-2017	6

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

GLOBAL INITIATIVES

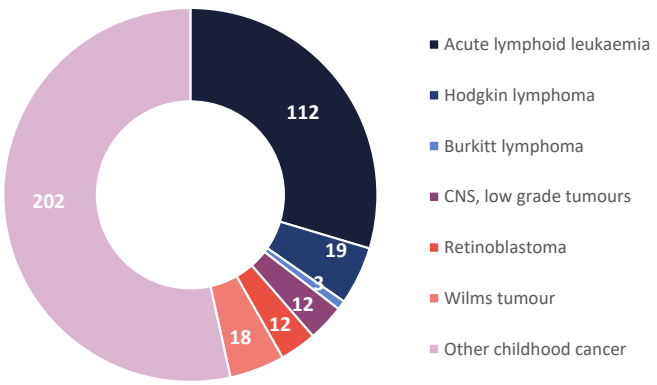
Elimination of Cervical Cancer

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	378
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

TURKMENISTAN

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

5,942,094

Total # cancer cases (2018)	Total # cancer deaths (2018)
5,828	4,079

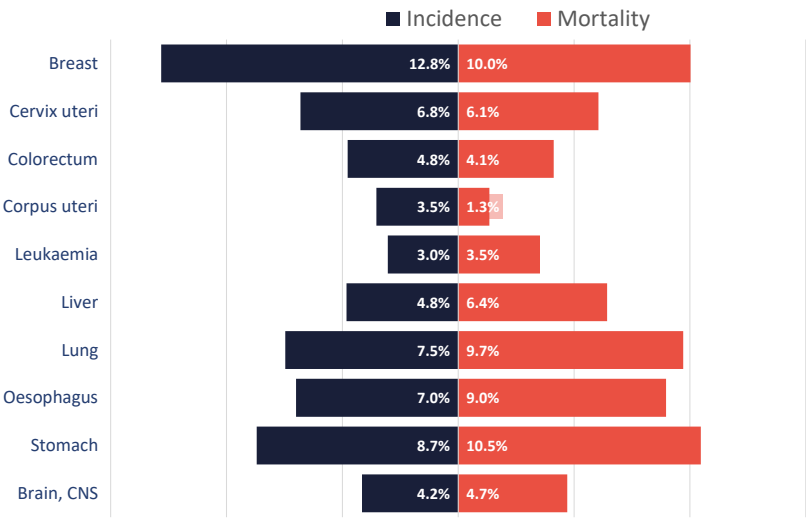
Premature deaths from NCDs (2016)

15,023

Cancer as % of NCD premature deaths (2016)

20.9%

Most common cancer cases (2018)



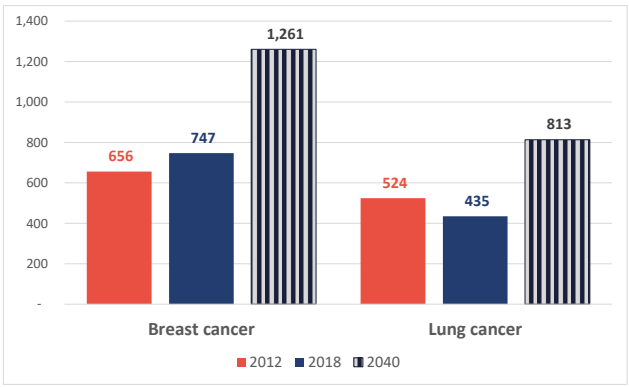
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
16.3%	10.5%	19.0%	2.2%	33.9%	1.0%

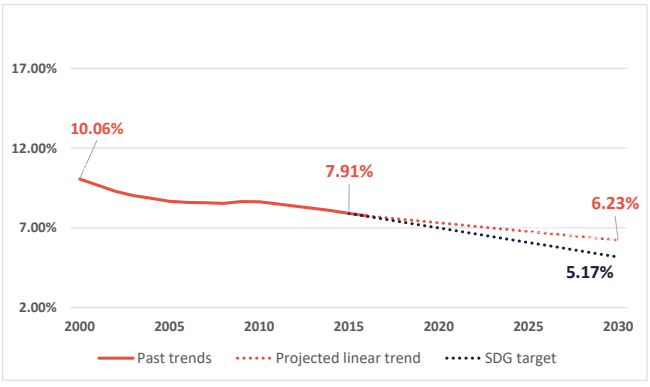
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

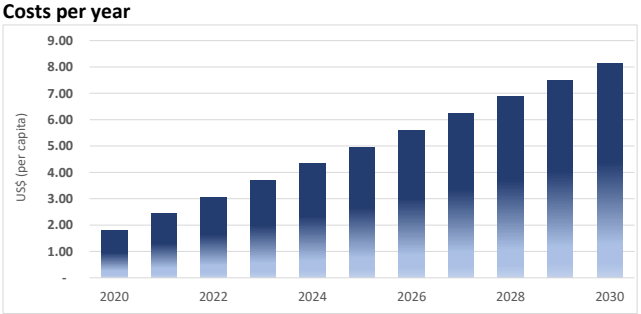


INVESTMENT CASE (2019)

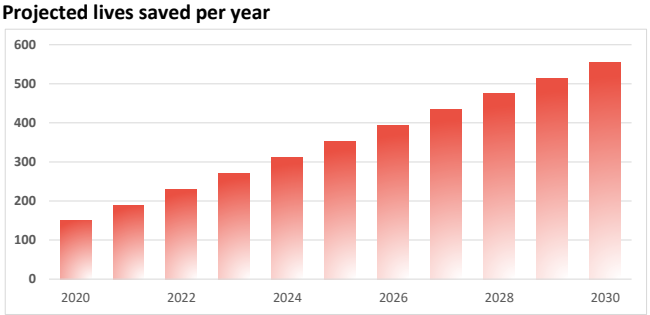
**Upper middle income*

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

Costs per year



Projected lives saved per year



TURKMENISTAN

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	12.0
# of mammographs[a]	2020	n/a
# of CT scanners[a]	2020	27.5
# of MRI scanners[a]	2020	20.6
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	2697.3
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	n/a
# of medical & pathology lab scientists[a]	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	35

# Public cancer centres per 10,000 cancer patients	2019	8.6
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 not available
Palliative care availability: community/home-based care	2019	generally available
Availability of opioids* for pain management	2015-2017	15

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

GLOBAL INITIATIVES

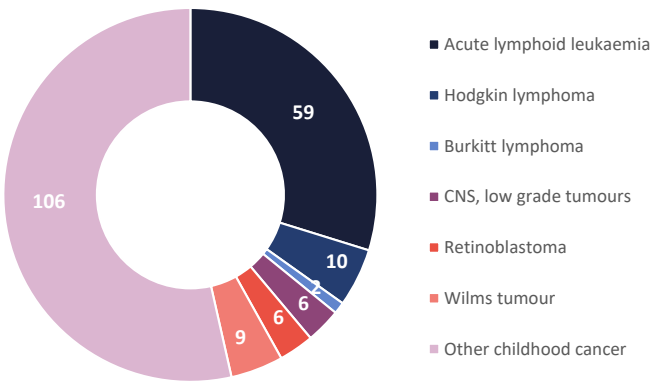
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	95.2
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
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	198
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

TIMOR-LESTE

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

1,293,120

Total # cancer cases (2018)	Total # cancer deaths (2018)
660	460

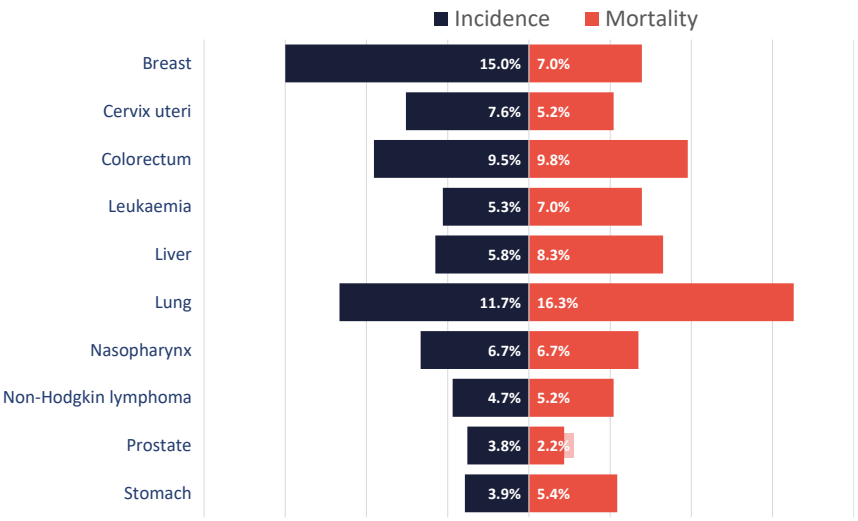
Premature deaths from NCDs (2016)

1,401

Cancer as % of NCD premature deaths (2016)

33.8%

Most common cancer cases (2018)



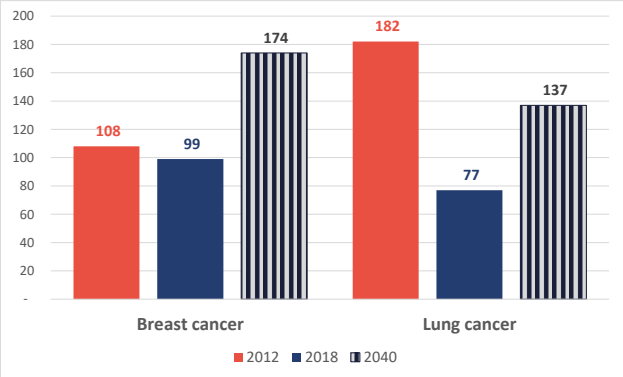
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
20.8%	1.4%	11.0%	0.8%	87.0%	1.9%

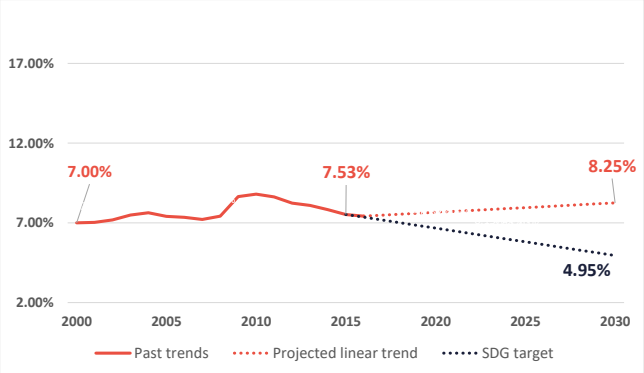
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

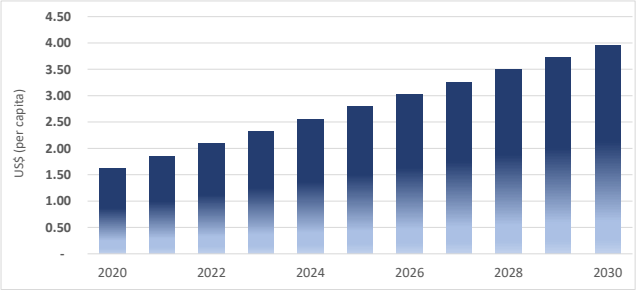


INVESTMENT CASE (2019)

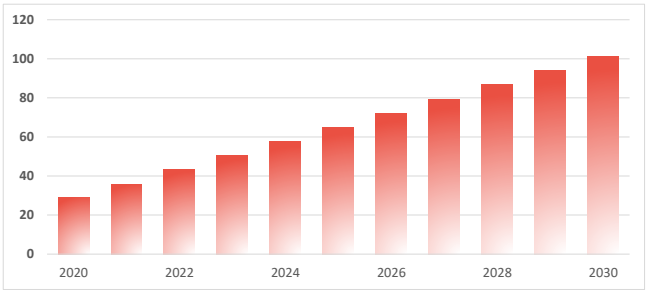
**Lower middle income*

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

Costs per year



Projected lives saved per year



TIMOR-LESTE

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	0.0
# of mammographs[a]	2020	n/a
# of CT scanners[a]	2020	n/a
# of MRI scanners[a]	2020	n/a
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	75.8
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	0.0
# of medical & pathology lab scientists[a]	2011	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	yes
Breast cancer screening program: Starting age, target population	2019	18

# Public cancer centres per 10,000 cancer patients	2019	15.2
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	generally not available
Palliative care availability: community/home-based care	2019	generally not available
Availability of opioids* for pain management	2015-2017	91

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

GLOBAL INITIATIVES

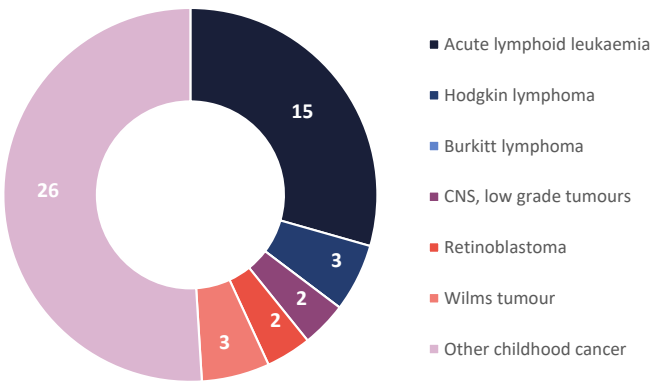
Elimination of Cervical Cancer

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	51
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

TONGA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

104,497

Total # cancer cases (2018)	Total # cancer deaths (2018)
n/a	n/a

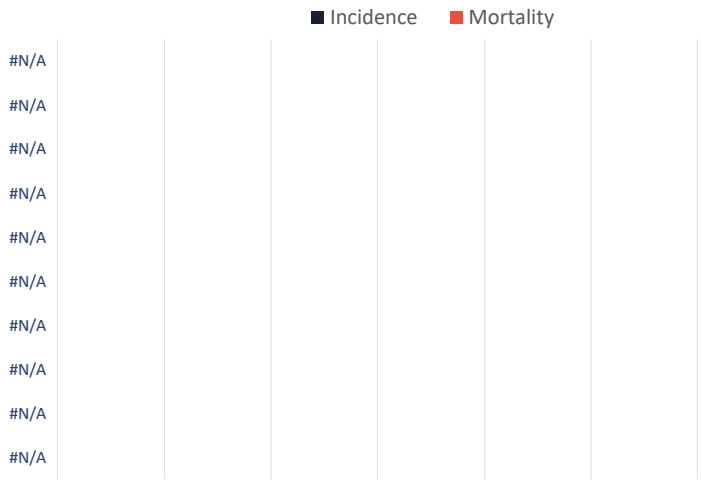
Premature deaths from NCDs (2016)

190

Cancer as % of NCD premature deaths (2016)

31.4%

Most common cancer cases (2018)



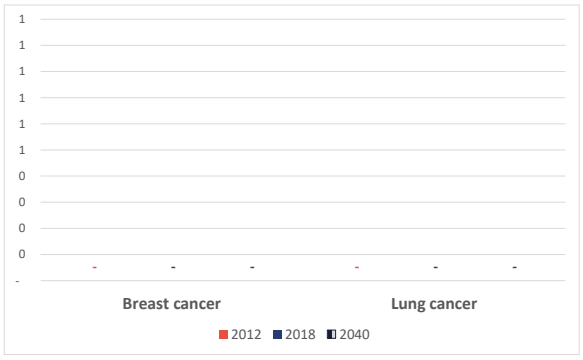
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
18.5%	2.9%	n/a	n/a	n/a	1.6%

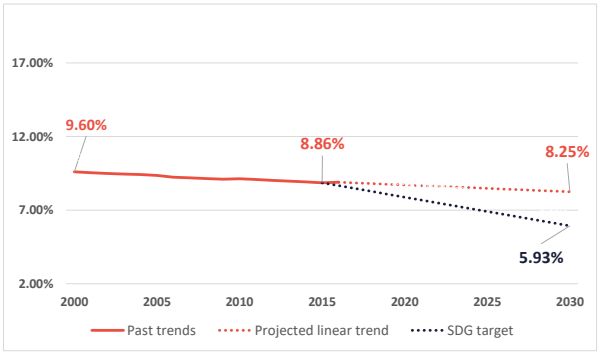
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

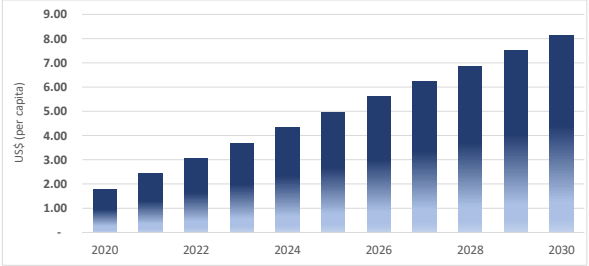


INVESTMENT CASE (2019)

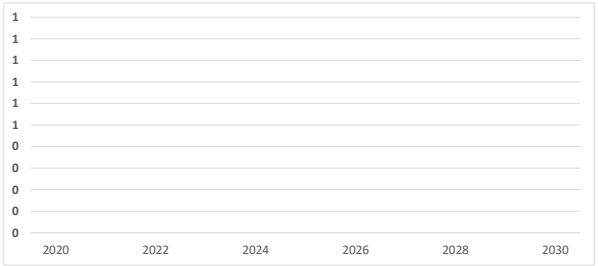
**Upper middle income*

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

Costs per year



Projected lives saved per year



TONGA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	n/a
# of mammographs[a]	2020	n/a
# of CT scanners[a]	2020	n/a
# of MRI scanners[a]	2020	n/a
# of PET or PET/CT scanners[a]	2020	n/a

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	n/a
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	n/a
# of medical & pathology lab scientists[a]	2013	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	yes
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	1
Breast cancer screening program	2019	yes
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 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	37

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

GLOBAL INITIATIVES

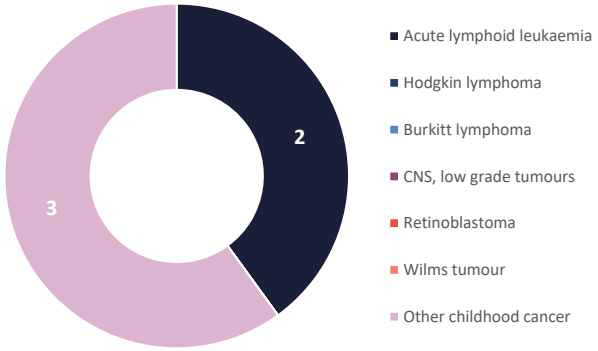
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
Screening programme method	2019	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	5
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

TRINIDAD AND TOBAGO

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

1,394,969

Total # cancer cases (2018)	Total # cancer deaths (2018)
3,369	1,988

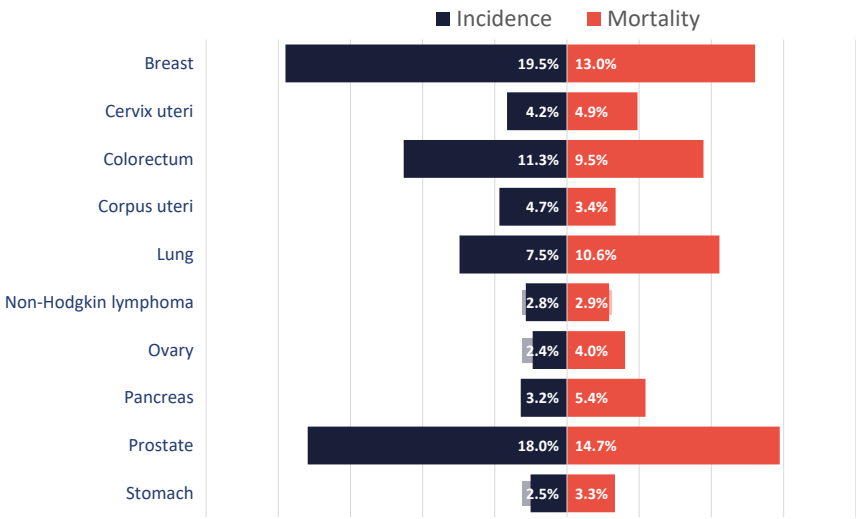
Premature deaths from NCDs (2016)

4,027

Cancer as % of NCD premature deaths (2016)

22.9%

Most common cancer cases (2018)



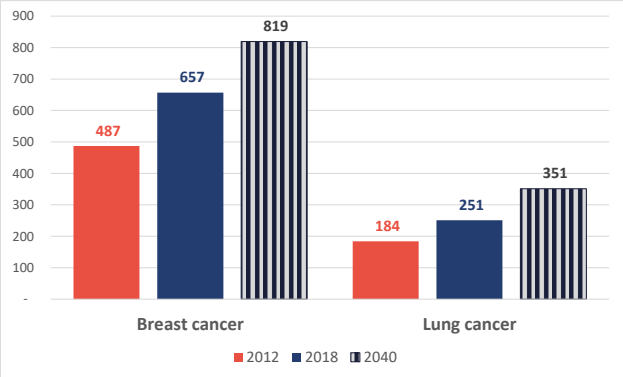
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
13.0%	4.4%	11.0%	5.4%	45.4%	1.3%

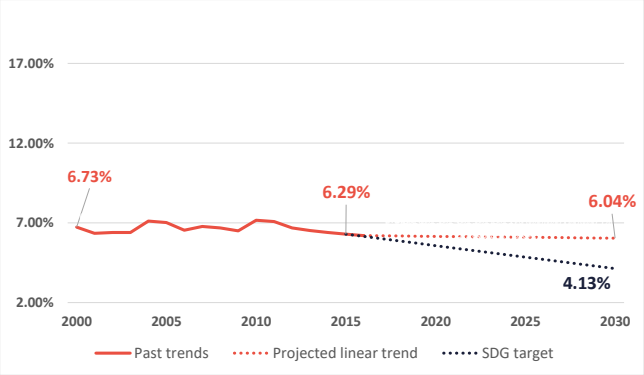
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

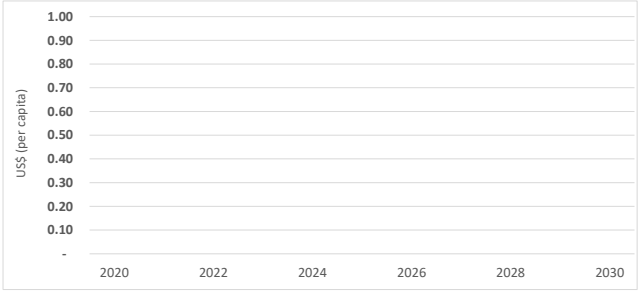


INVESTMENT CASE (2019)

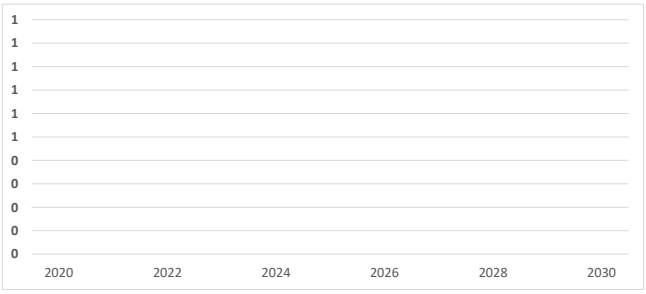
**High income*

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

Costs per year



Projected lives saved per year



TRINIDAD AND TOBAGO

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	11.9
# of mammographs[a]	2020	14.8
# of CT scanners[a]	2020	47.5
# of MRI scanners[a]	2020	17.8
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] *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[a]	2019	23.7
# of medical physicist[a]	2019	23.7
# of surgeons[a]	2014	733.2
# of radiologist[a]	2019	89.0
# of nuclear medicine physician[a]	2019	8.9
# of medical & pathology lab scientists[a]	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	no
# 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	3.0
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 available
Availability of opioids* for pain management	2015-2017	132

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

GLOBAL INITIATIVES

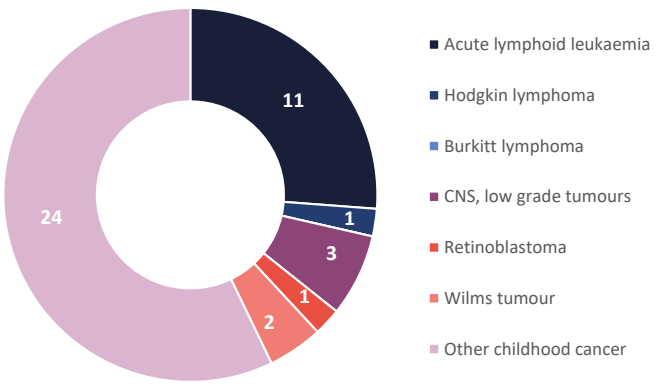
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	14.1
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	42
Early detection programme/guidelines	2019	don't know
Defined referral system	2019	don't know

Annual cancer cases (0-14 years old)



TUNISIA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

11,694,721

Total # cancer cases (2018)	Total # cancer deaths (2018)
15,894	10,092

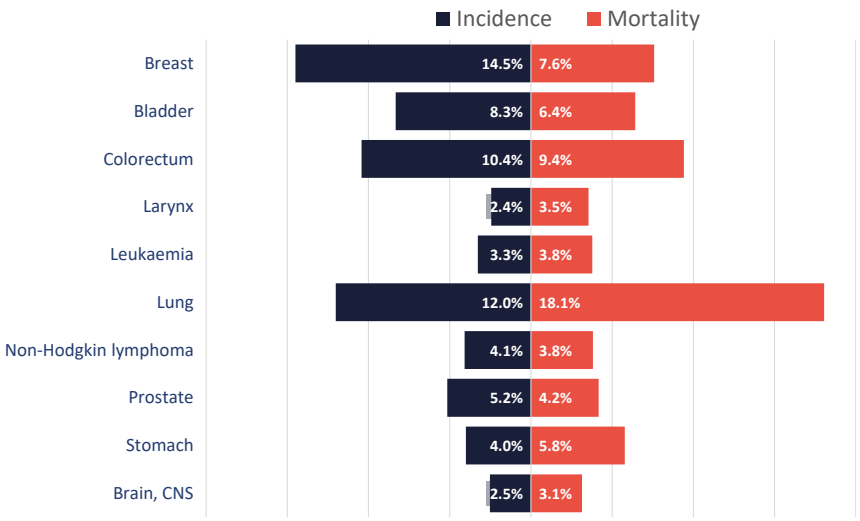
Premature deaths from NCDs (2016)

20,010

Cancer as % of NCD premature deaths (2016)

24.0%

Most common cancer cases (2018)



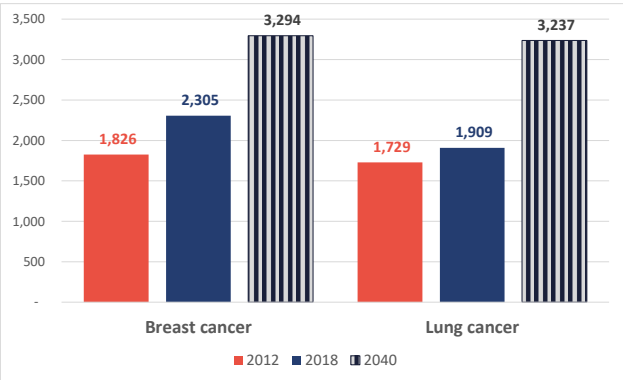
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
29.7%	1.4%	10.7%	4.4%	6.2%	2.7%

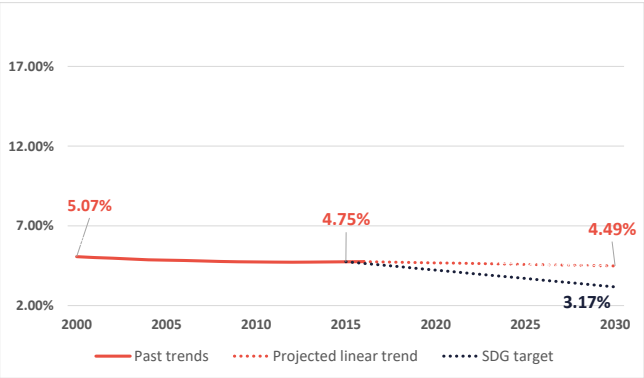
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

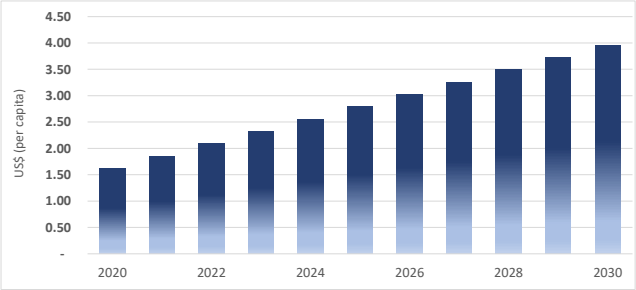


INVESTMENT CASE (2019)

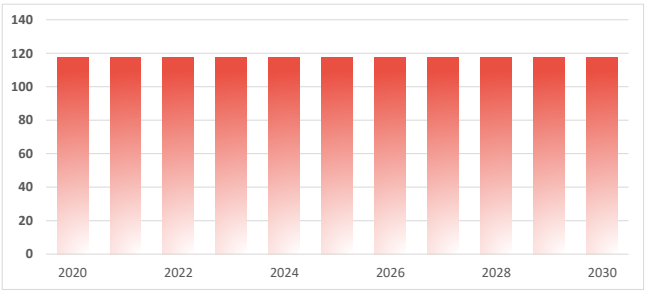
**Lower middle income*

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

Costs per year



Projected lives saved per year



TUNISIA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	14.5
# of mammographs[a]	2020	141.6
# of CT scanners[a]	2020	91.9
# of MRI scanners[a]	2020	31.5
# of PET or PET/CT scanners[a]	2020	1.9

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	18.9
# of surgeons[a]	2014	205.7
# of radiologist[a]	2019	503.3
# of nuclear medicine physician[a]	2019	37.8
# of medical & pathology lab scientists[a]	2004	225.2

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	yes
# 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	6.3
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	170

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

GLOBAL INITIATIVES

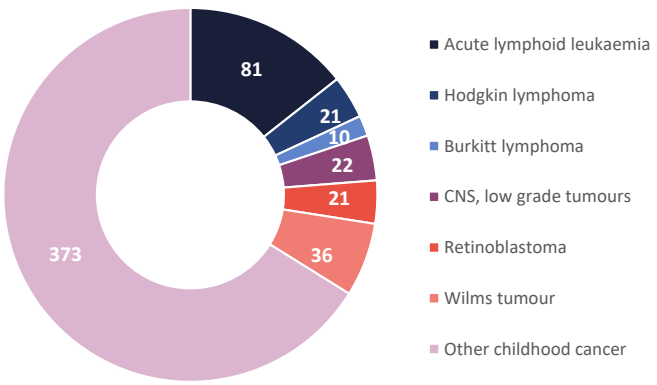
Elimination of Cervical Cancer

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	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	564
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

TURKEY

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

83,429,607

Total # cancer cases (2018)	Total # cancer deaths (2018)
210,537	116,710

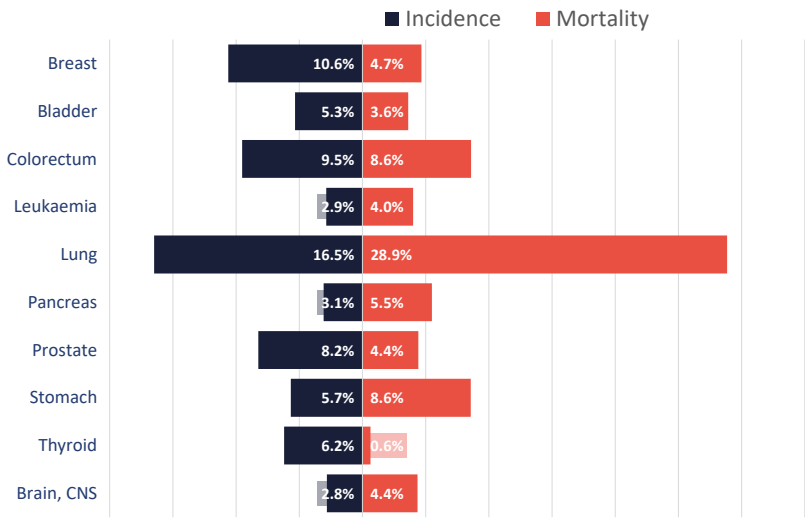
Premature deaths from NCDs (2016)

134,367

Cancer as % of NCD premature deaths (2016)

46.1%

Most common cancer cases (2018)



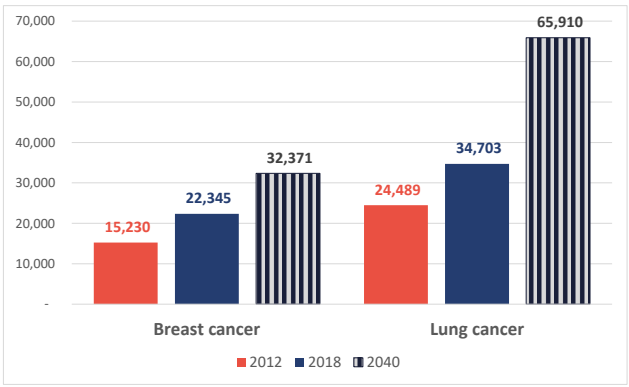
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
34.1%	1.5%	9.8%	4.8%	40.3%	8.4%

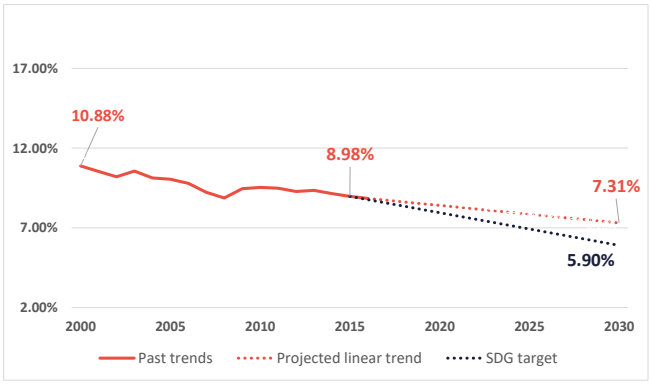
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

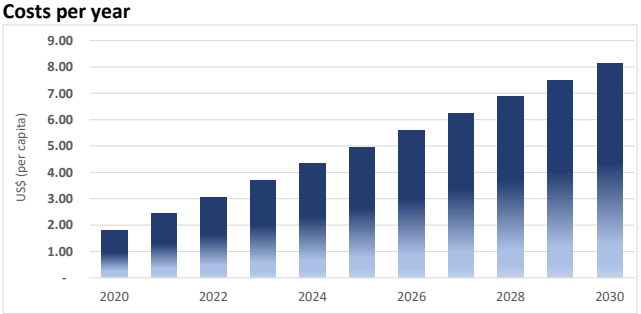


INVESTMENT CASE (2019)

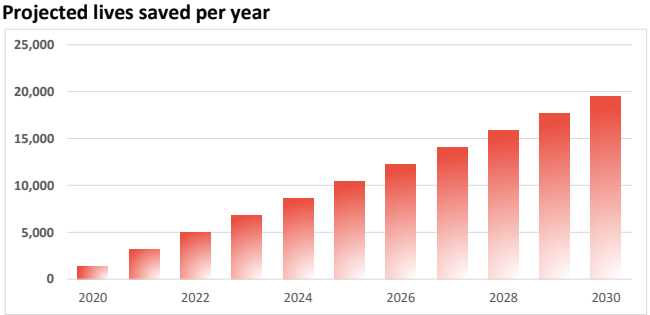
**Upper middle income*

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

Costs per year



Projected lives saved per year



TURKEY

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	12.6
# of mammographs[a]	2020	69.1
# of CT scanners[a]	2020	95.7
# of MRI scanners[a]	2020	70.8
# of PET or PET/CT scanners[a]	2020	5.8

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	21.9
# of surgeons[a]	2011	289.9
# of radiologist[a]	2019	190.0
# of nuclear medicine physician[a]	2019	25.6
# of medical & pathology lab scientists[a]	n/a	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	operational
NCCP (including cancer types)	2019	operational
MPOWER measures fully implemented and achieved	2018	5
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	11.9
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	593

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

GLOBAL INITIATIVES

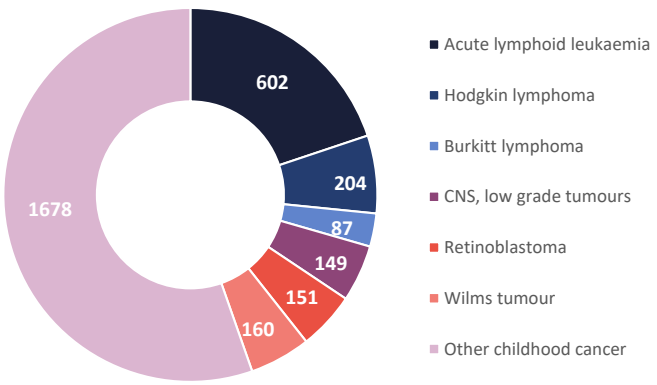
Elimination of Cervical Cancer

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	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	3031
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Annual cancer cases (0-14 years old)



TANZANIA, UNITED REPUBLIC OF

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

58,005,461

Total # cancer cases (2018)	Total # cancer deaths (2018)
42,060	28,610

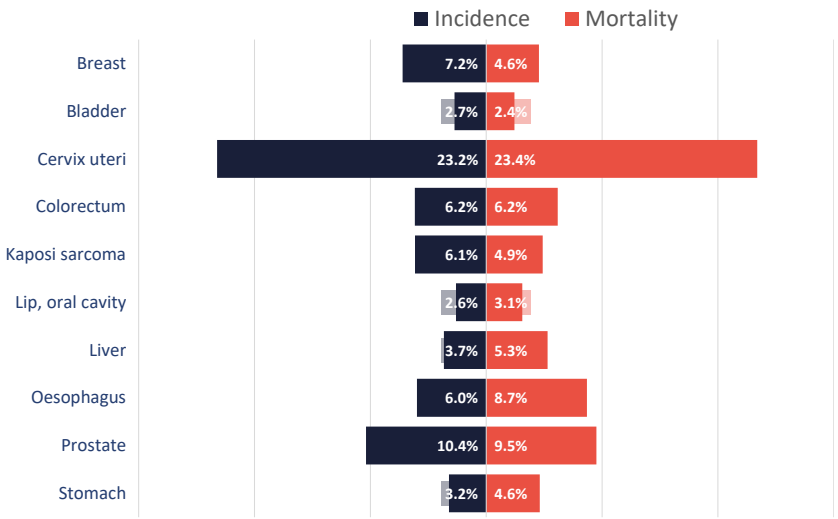
Premature deaths from NCDs (2016)

53,776

Cancer as % of NCD premature deaths (2016)

29.6%

Most common cancer cases (2018)



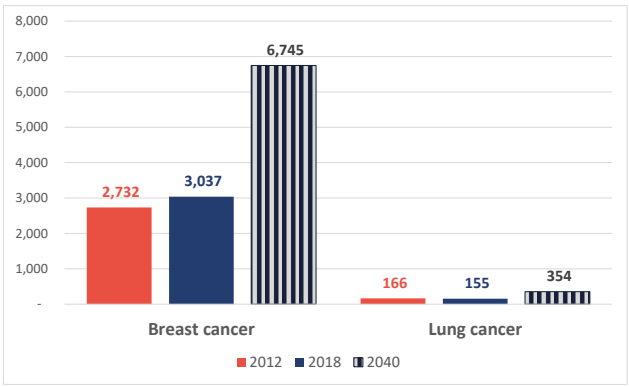
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
n/a	8.6%	44.2%	n/a	n/a	0.7%

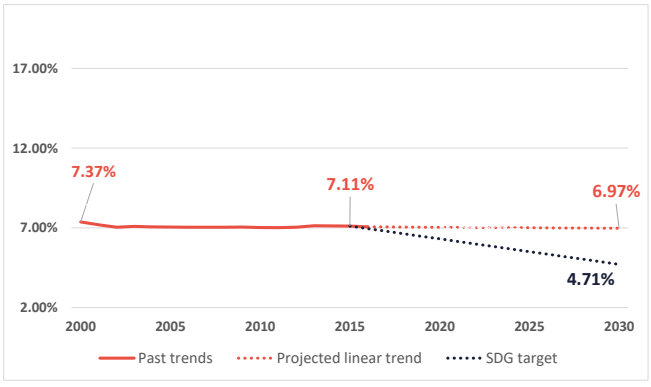
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

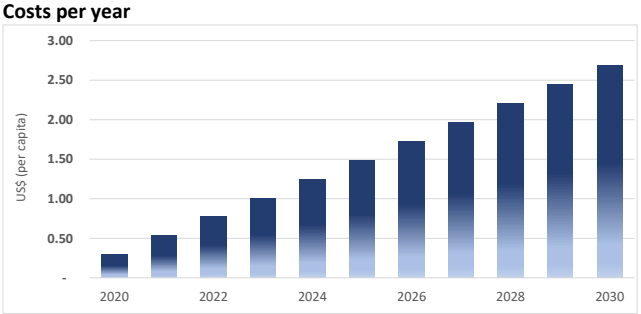


INVESTMENT CASE (2019)

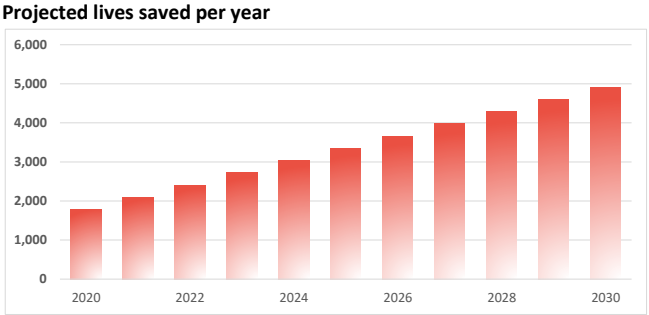
**Low income*

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

Costs per year



Projected lives saved per year



TANZANIA, UNITED REPUBLIC OF

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	1.2
# of mammographs[a]	2020	25.9
# of CT scanners[a]	2020	5.9
# of MRI scanners[a]	2020	1.2
# of PET or PET/CT scanners[a]	2020	0.2

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	1.0
# of surgeons[a]	2010	23.8
# of radiologist[a]	2019	14.3
# of nuclear medicine physician[a]	2019	1.2
# of medical & pathology lab scientists[a]	2014	22.1

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	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	1.0
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	5

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

GLOBAL INITIATIVES

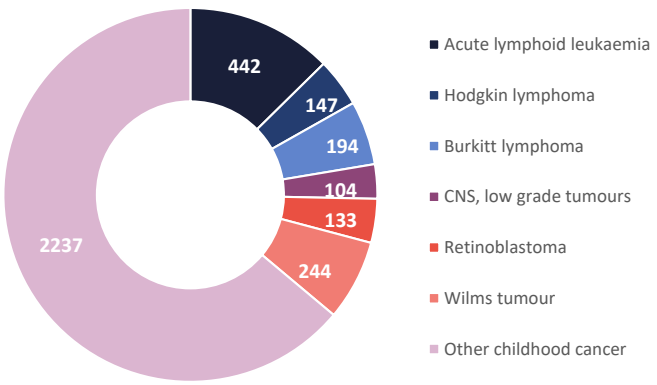
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	15.7
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	3501
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

UGANDA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

44,269,587

Total # cancer cases (2018)	Total # cancer deaths (2018)
32,617	21,829

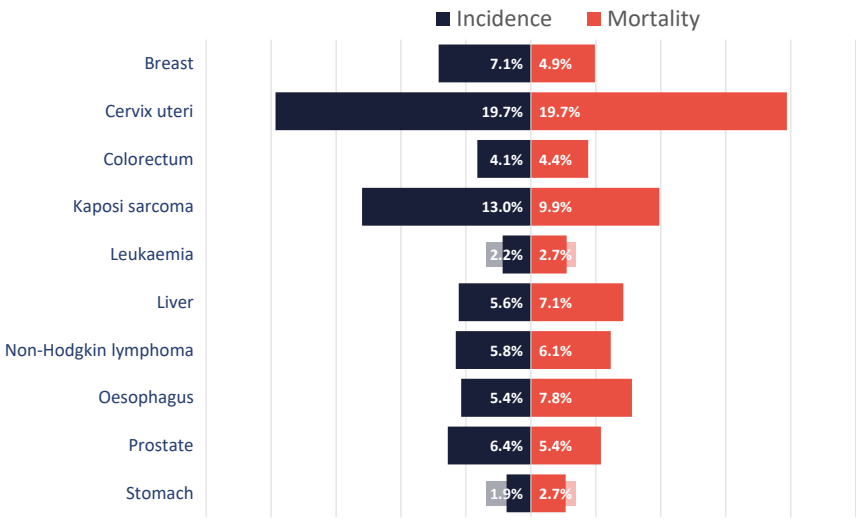
Premature deaths from NCDs (2016)

41,687

Cancer as % of NCD premature deaths (2016)

37.9%

Most common cancer cases (2018)



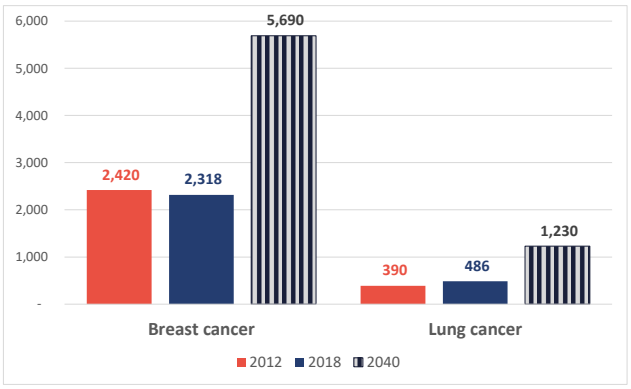
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
6.3%	8.4%	36.0%	0.6%	72.0%	0.4%

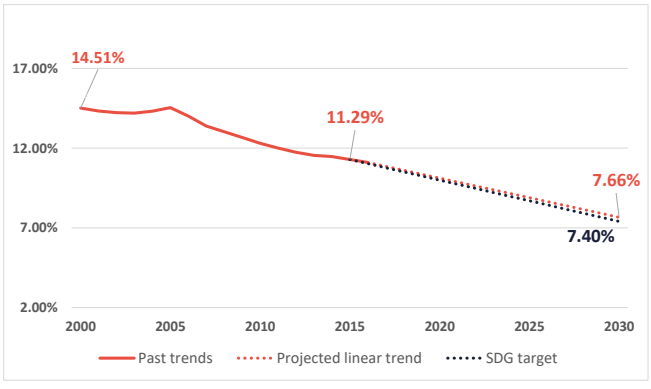
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

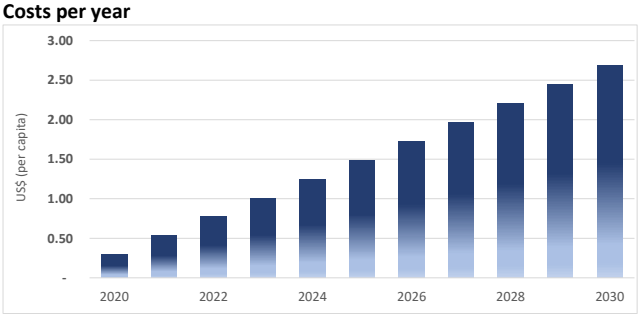


INVESTMENT CASE (2019)

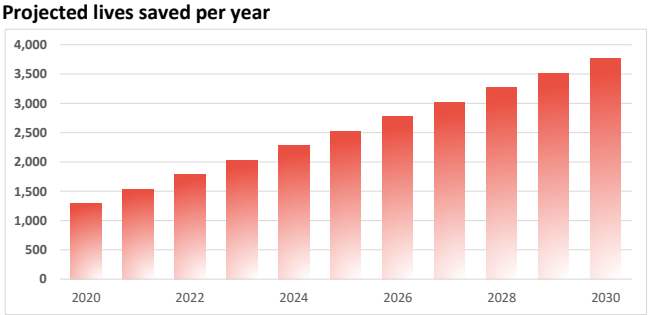
**Low income*

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

Costs per year



Projected lives saved per year



UGANDA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	0.3
# of mammographs[a]	2020	6.4
# of CT scanners[a]	2020	7.1
# of MRI scanners[a]	2020	0.9
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	0.0
# of surgeons[a]	2012	62.5
# of radiologist[a]	2019	13.5
# of nuclear medicine physician[a]	2019	0.9
# of medical & pathology lab scientists[a]	2015	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	under development
NCCP (including cancer types)	2019	under development
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	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	0.9
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	28

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

GLOBAL INITIATIVES

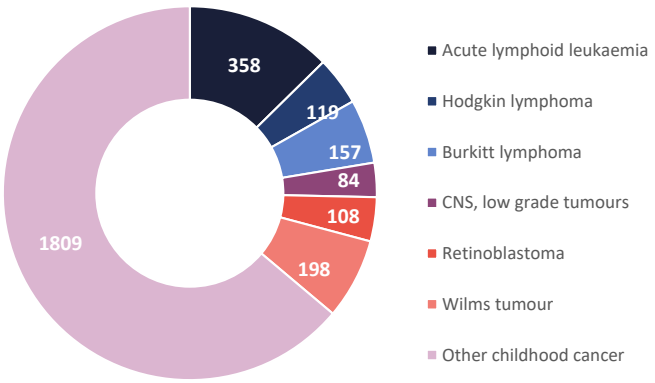
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	71.6
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	no
Defined referral system	2019	no

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	2833
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

UKRAINE

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

43,993,643

Total # cancer cases (2018)	Total # cancer deaths (2018)
169,817	98,226

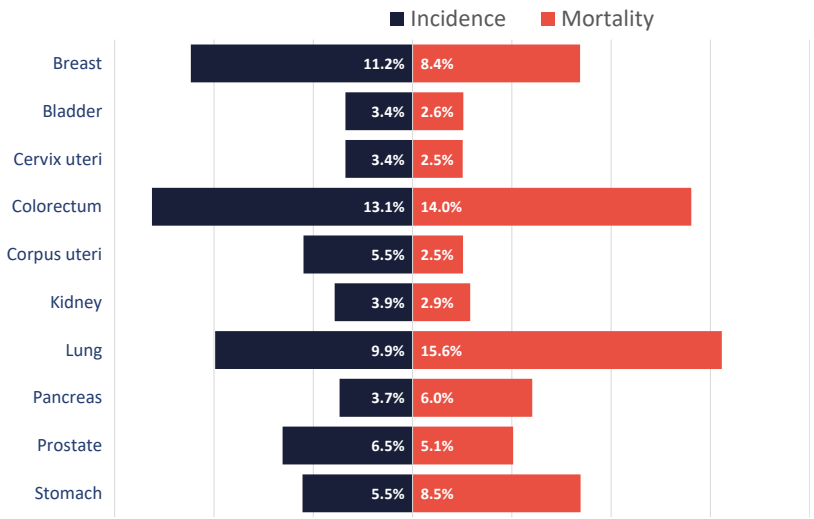
Premature deaths from NCDs (2016)

187,154

Cancer as % of NCD premature deaths (2016)

30.4%

Most common cancer cases (2018)



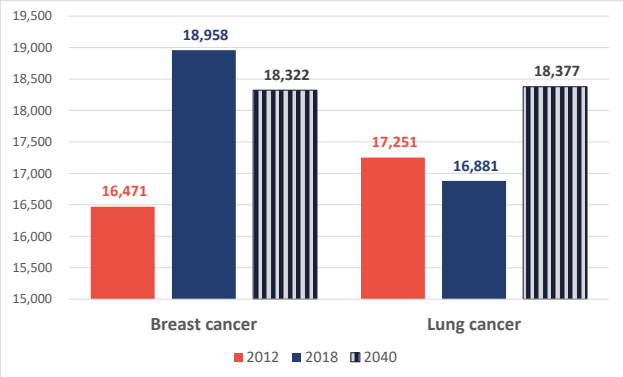
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
28.0%	11.6%	12.3%	5.7%	61.5%	1.9%

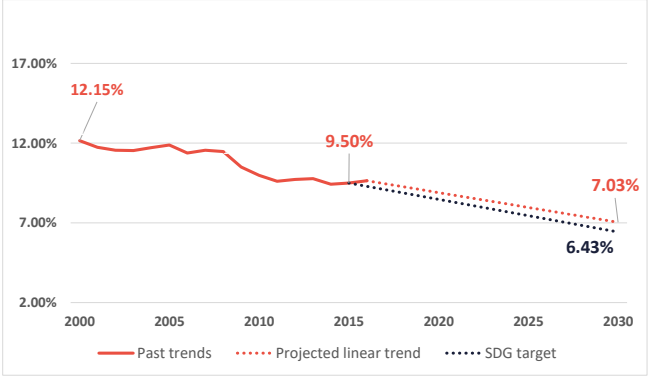
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

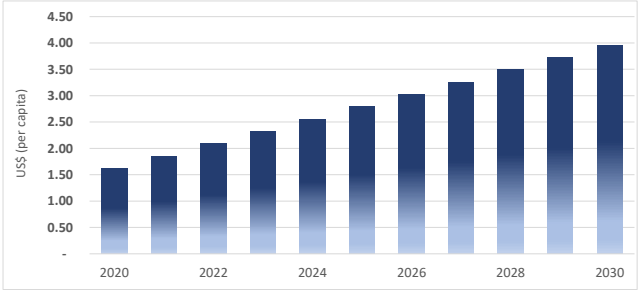


INVESTMENT CASE (2019)

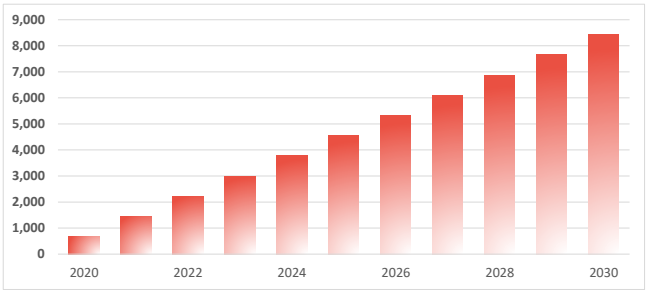
**Lower middle income*

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

Costs per year



Projected lives saved per year



UKRAINE

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	5.4
# of mammographs[a]	2020	24.7
# of CT scanners[a]	2020	22.3
# of MRI scanners[a]	2020	8.9
# of PET or PET/CT scanners[a]	2020	0.2

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	5.8
# of surgeons[a]	n/a	n/a
# of radiologist[a]	2019	396.4
# of nuclear medicine physician[a]	2019	n/a
# of medical & pathology lab scientists[a]	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	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	1.6
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	63

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

GLOBAL INITIATIVES

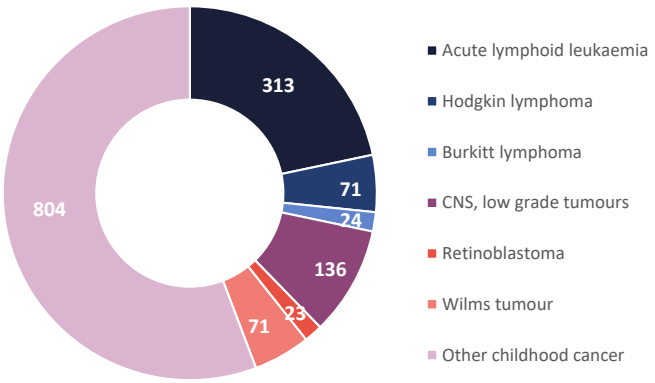
Elimination of Cervical Cancer

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	<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	1442
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Annual cancer cases (0-14 years old)



URUGUAY

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

3,461,731

Total # cancer cases (2018)	Total # cancer deaths (2018)
15,101	8,589

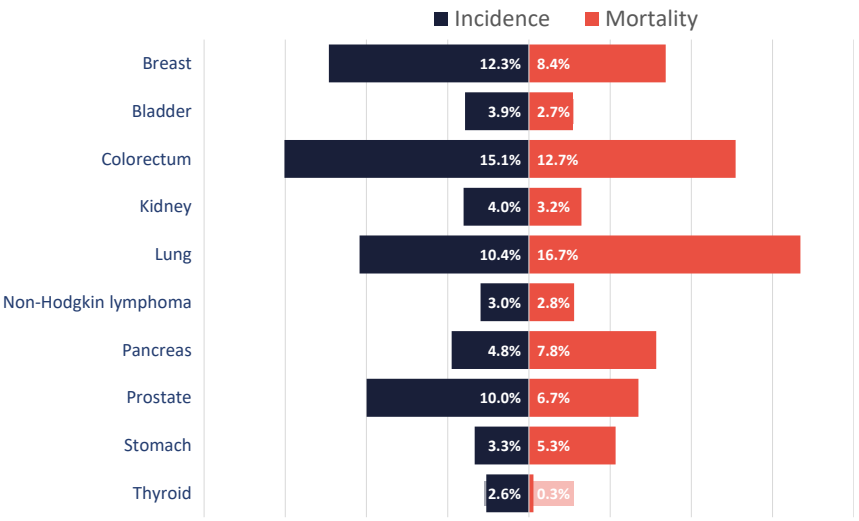
Premature deaths from NCDs (2016)

7,403

Cancer as % of NCD premature deaths (2016)

46.0%

Most common cancer cases (2018)



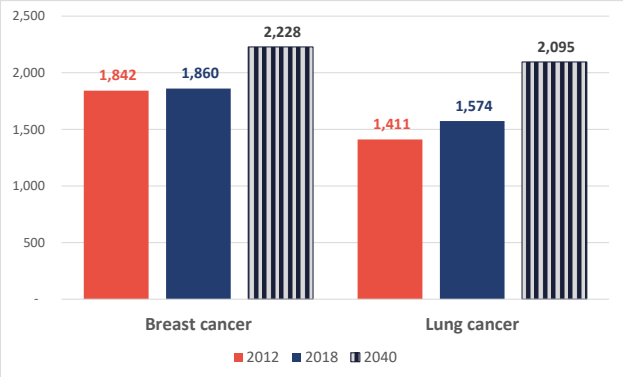
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
23.9%	5.6%	8.7%	5.7%	66.5%	2.6%

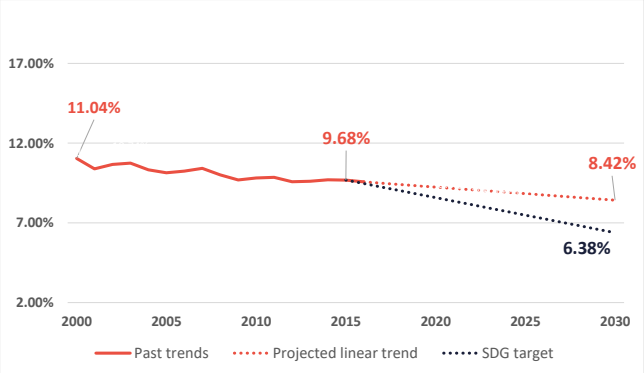
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

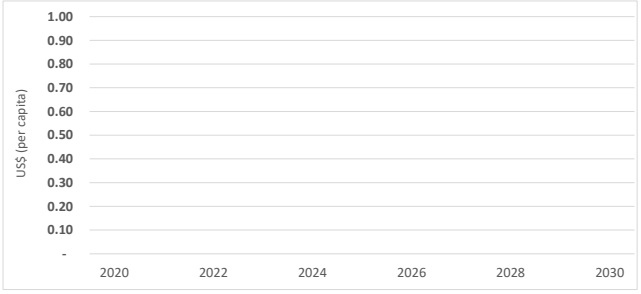


INVESTMENT CASE (2019)

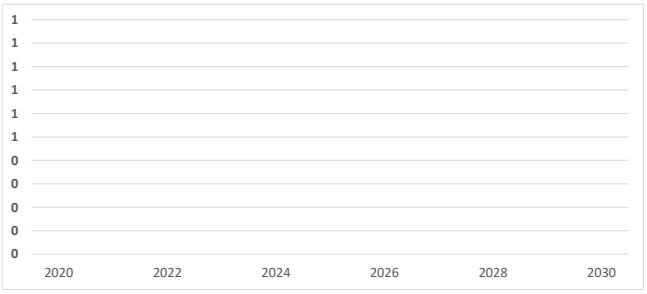
**High income*

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

Costs per year



Projected lives saved per year



URUGUAY

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	8.6
# of mammographs[a]	2020	41.1
# of CT scanners[a]	2020	29.8
# of MRI scanners[a]	2020	6.6
# of PET or PET/CT scanners[a]	2020	2.0

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	264.9
# of radiologist[a]	2019	103.3
# of nuclear medicine physician[a]	2019	21.2
# of medical & pathology lab scientists[a]	2016	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	operational
NCCP (including cancer types)	2019	operational
MPOWER measures fully implemented and achieved	2018	3
Cancer management guidelines	2019	yes
Palliative care included in their operational, integrated NCD plan	2019	yes
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3
Breast cancer screening program	2019	yes
Breast cancer screening program: Starting age, target population	2019	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	465

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

GLOBAL INITIATIVES

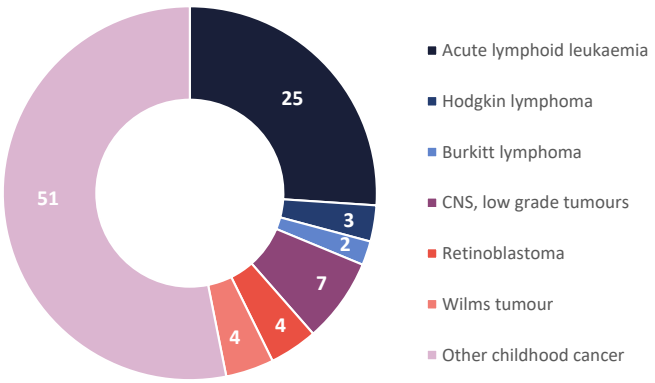
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	41.9
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	96
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Annual cancer cases (0-14 years old)



UNITED STATES OF AMERICA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

329,064,917

Total # cancer cases (2018)	Total # cancer deaths (2018)
2,129,118	616,714

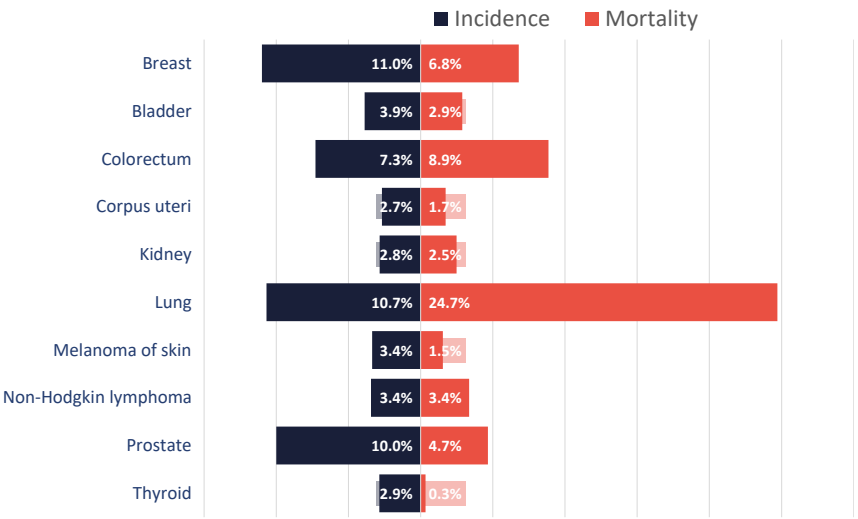
Premature deaths from NCDs (2016)

788,905

Cancer as % of NCD premature deaths (2016)

34.2%

Most common cancer cases (2018)



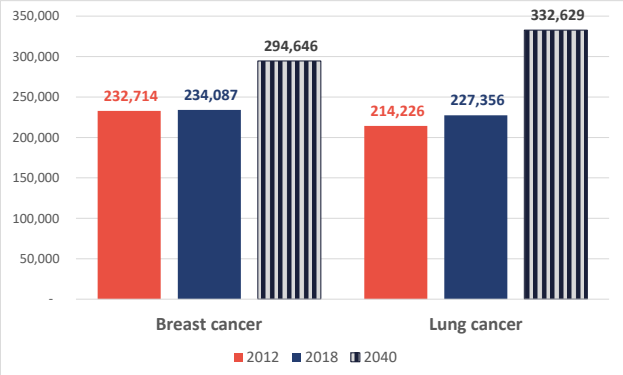
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
n/a	7.0%	4.1%	6.4%	90.5%	6.1%

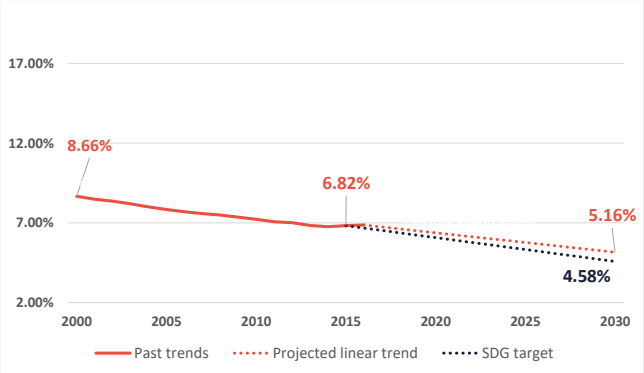
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

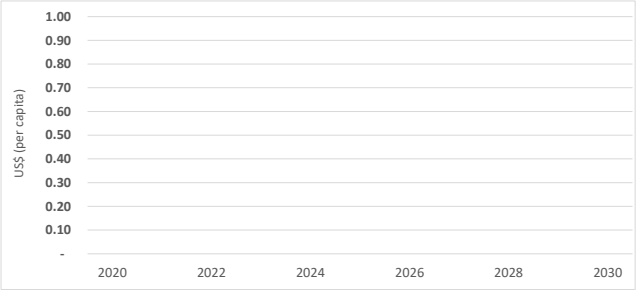


INVESTMENT CASE (2019)

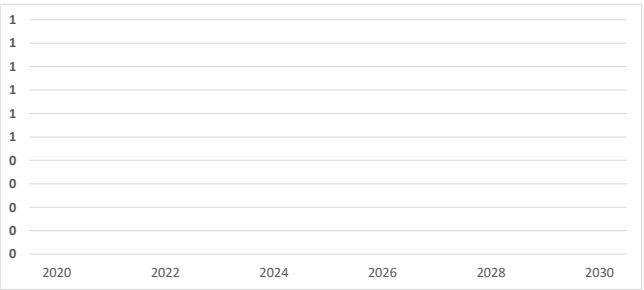
**High income*

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 STATES OF AMERICA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	18.0
# of mammographs[a]	2020	84.9
# of CT scanners[a]	2020	65.2
# of MRI scanners[a]	2020	57.5
# of PET or PET/CT scanners[a]	2020	11.3

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	41.6
# of surgeons[a]	2011	538.6
# of radiologist[a]	2019	182.6
# of nuclear medicine physician[a]	2019	18.3
# of medical & pathology lab scientists[a]	2010	2593.9

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	3
Breast cancer screening program	2019	yes
Breast cancer screening program: Starting age, target population	2019	20

# 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	32394

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

GLOBAL INITIATIVES

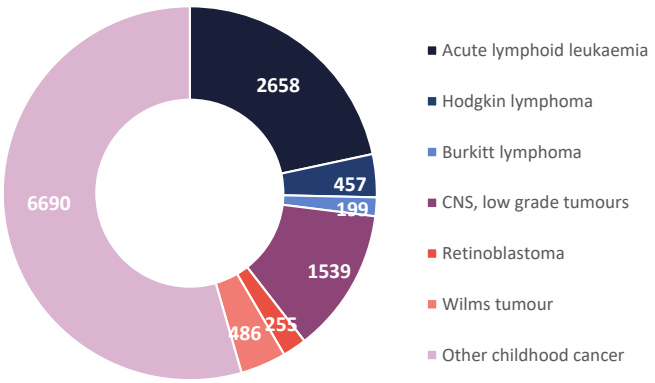
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	46
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	12284
Early detection programme/guidelines	2019	don't know
Defined referral system	2019	don't know

Annual cancer cases (0-14 years old)



UZBEKISTAN

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

32,981,715

Total # cancer cases (2018)	Total # cancer deaths (2018)
25,309	16,685

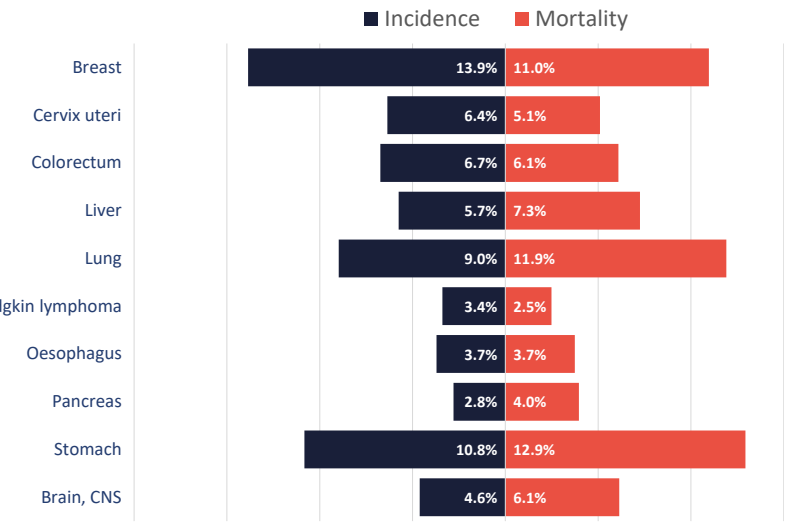
Premature deaths from NCDs (2016)

63,971

Cancer as % of NCD premature deaths (2016)

15.4%

Most common cancer cases (2018)



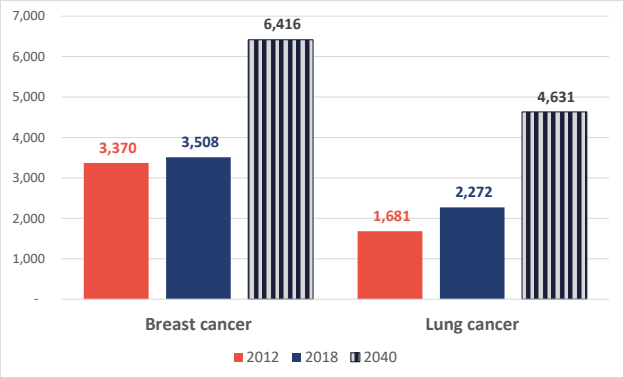
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
13.8%	7.8%	21.3%	3.0%	9.7%	1.0%

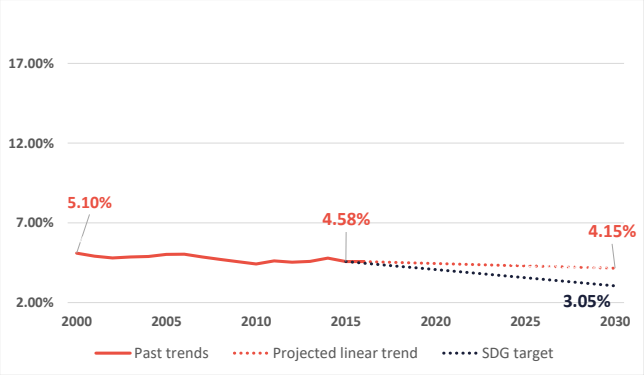
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

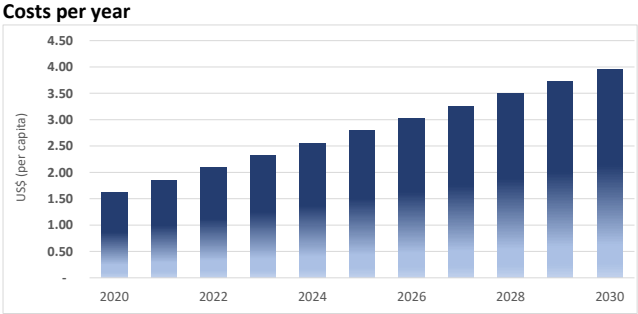


INVESTMENT CASE (2019)

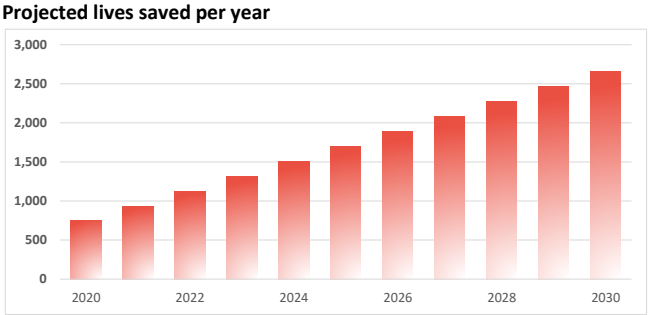
**Lower middle income*

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

Costs per year



Projected lives saved per year



UZBEKISTAN

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	2.8
# of mammographs[a]	2020	17.8
# of CT scanners[a]	2020	9.5
# of MRI scanners[a]	2020	28.4
# of PET or PET/CT scanners[a]	2020	0.4

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	n/a	n/a
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	2.4
# of medical & pathology lab scientists[a]	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	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	no
Breast cancer screening program: Starting age, target population	2019	n/a

# Public cancer centres per 10,000 cancer patients	2019	6.3
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	12

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

GLOBAL INITIATIVES

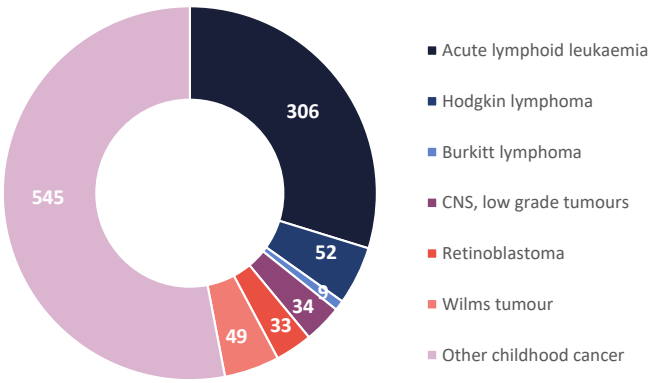
Elimination of Cervical Cancer

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	1028
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Annual cancer cases (0-14 years old)



SAINT VINCENT AND THE GRENADINES

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

110,593

Total # cancer cases (2018)	Total # cancer deaths (2018)
n/a	n/a

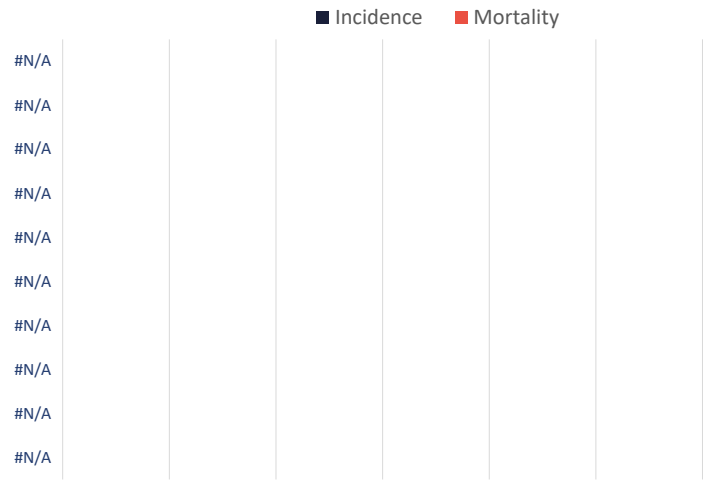
Premature deaths from NCDs (2016)

288

Cancer as % of NCD premature deaths (2016)

30.9%

Most common cancer cases (2018)



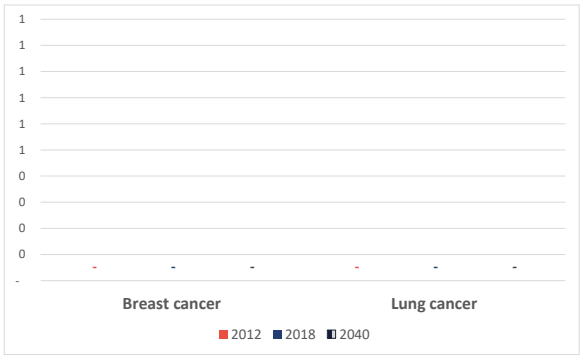
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
11.3%	5.1%	n/a	n/a	n/a	0.9%

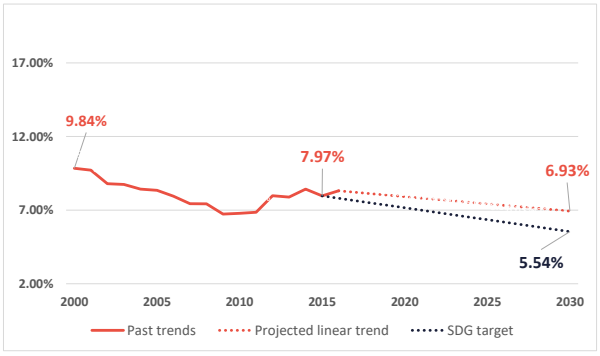
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

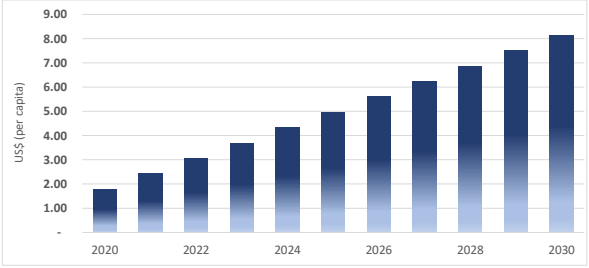


INVESTMENT CASE (2019)

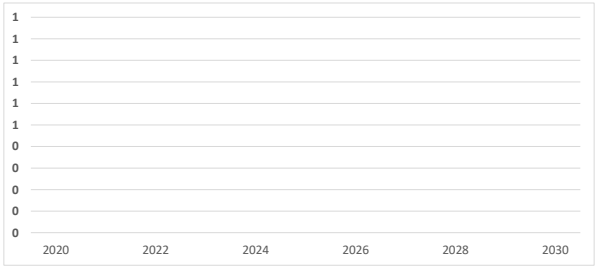
**Upper middle income*

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

Costs per year



Projected lives saved per year



SAINT VINCENT AND THE GRENADINES

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] per 10,000 cancer patients

Availability of population-based cancer registry (PBCR)**	2019	No information
Quality of mortality registration***	2007-2016	High
# of external beam radiotherapy (photon,electron)[a]	2019	n/a
# of mammographs[a]	2020	n/a
# of CT scanners[a]	2020	n/a
# of MRI scanners[a]	2020	n/a
# of PET or PET/CT scanners[a]	2020	n/a

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	n/a
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	n/a
# of medical & pathology lab scientists[a]	2004	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	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	106

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

GLOBAL INITIATIVES

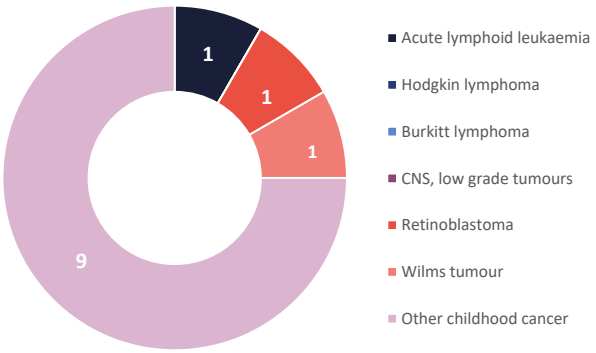
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	3.6
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	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)



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

VENEZUELA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

28,515,829

Total # cancer cases (2018)	Total # cancer deaths (2018)
61,979	30,968

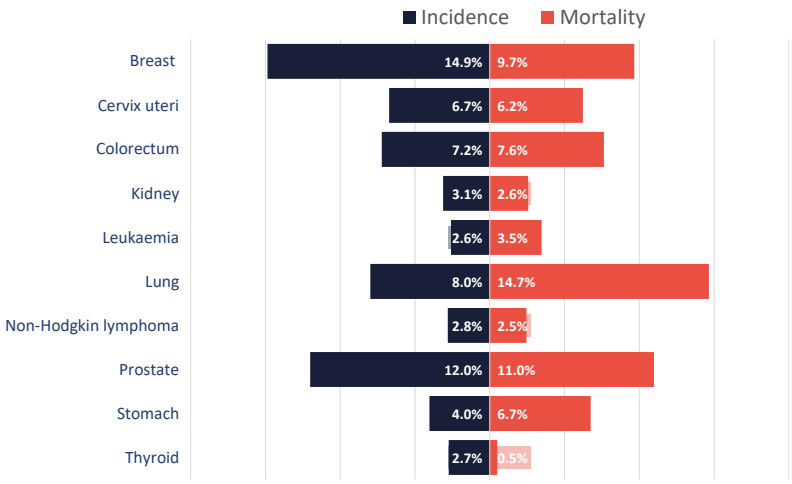
Premature deaths from NCDs (2016)

54,324

Cancer as % of NCD premature deaths (2016)

29.3%

Most common cancer cases (2018)



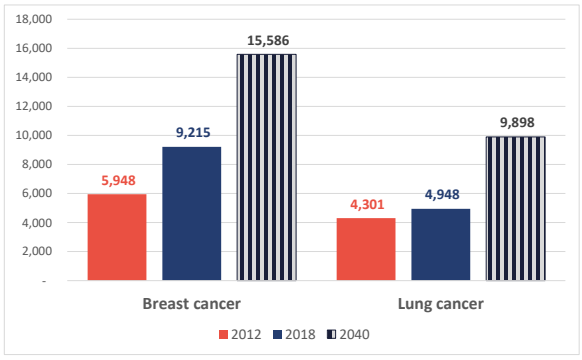
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
n/a	5.5%	20.3%	n/a	n/a	1.7%

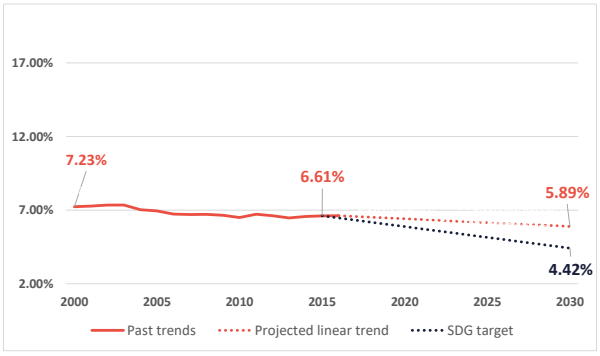
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

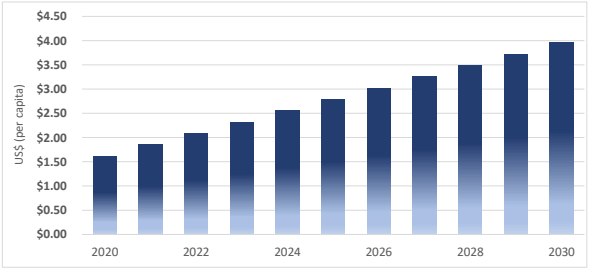


INVESTMENT CASE (2019)

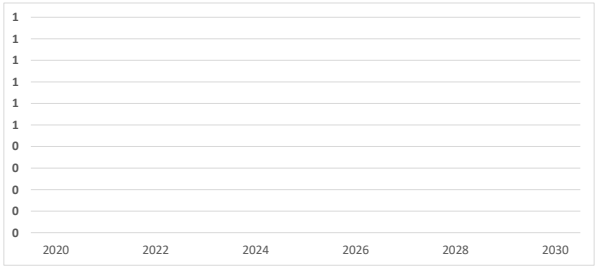
**Upper middle income*

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

Costs per year



Projected lives saved per year



VENEZUELA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	6.8
# of mammographs[a]	2020	32.9
# of CT scanners[a]	2020	n/a
# of MRI scanners[a]	2020	n/a
# of PET or PET/CT scanners[a]	2020	1.1

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	550.3
# of radiologist[a]	2019	77.4
# of nuclear medicine physician[a]	2019	3.7
# of medical & pathology lab scientists[a]	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	no
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	#N/A
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	3.4
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	#N/A
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	36

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

GLOBAL INITIATIVES

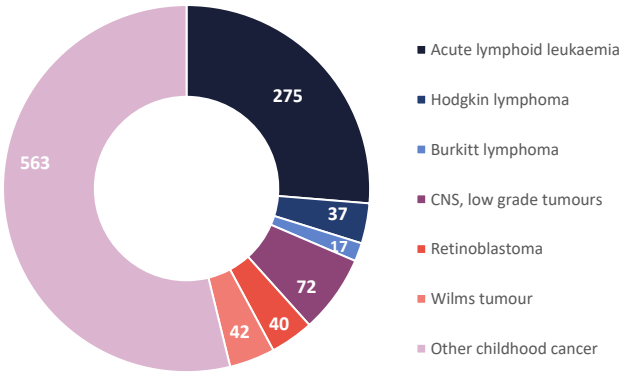
Elimination of Cervical Cancer

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	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	1046
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

VIET NAM

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

96,462,108

Total # cancer cases (2018)	Total # cancer deaths (2018)
164,671	114,871

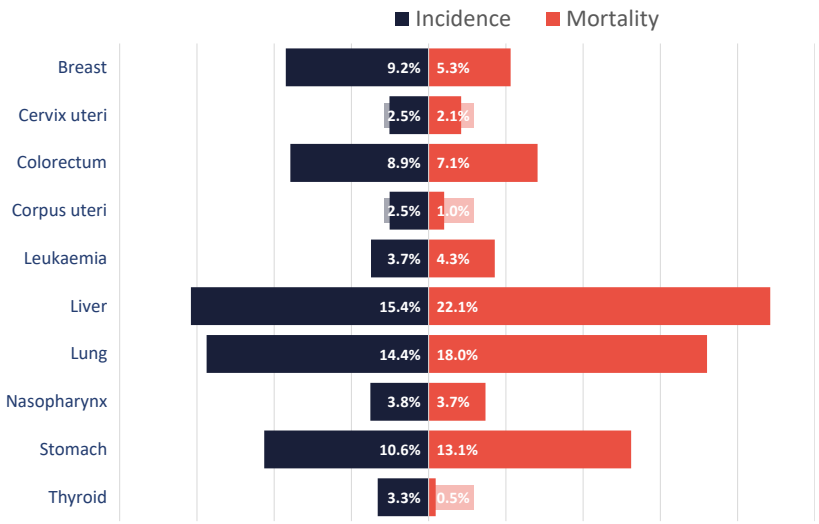
Premature deaths from NCDs (2016)

169,199

Cancer as % of NCD premature deaths (2016)

39.8%

Most common cancer cases (2018)



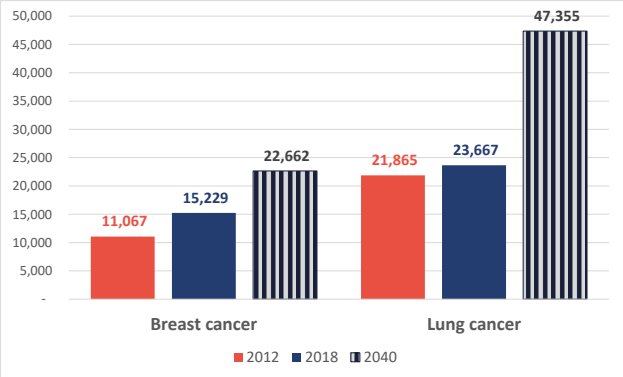
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
n/a	4.7%	31.6%	0.3%	0.0%	3.7%

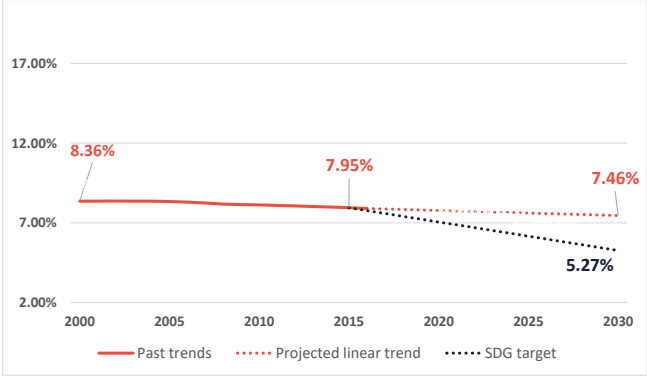
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

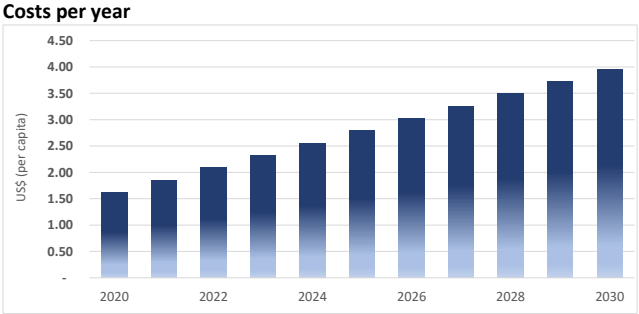


INVESTMENT CASE (2019)

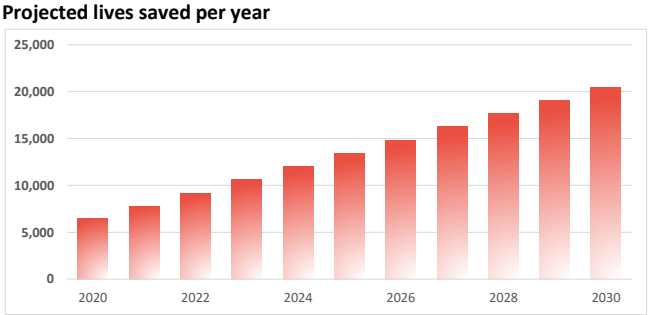
**Lower middle income*

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

Costs per year



Projected lives saved per year



VIET NAM

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	2.2
# of mammographs[a]	2020	n/a
# of CT scanners[a]	2020	7.3
# of MRI scanners[a]	2020	3.1
# of PET or PET/CT scanners[a]	2020	0.7

WORKFORCE

[a] *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[a]	2019	6.8
# of medical physicist[a]	2019	8.5
# of surgeons[a]	n/a	n/a
# of radiologist[a]	2019	194.3
# of nuclear medicine physician[a]	2019	6.7
# of medical & pathology lab scientists[a]	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	1
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
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 (S-DDD) per miliion inhabitants per day*

GLOBAL INITIATIVES

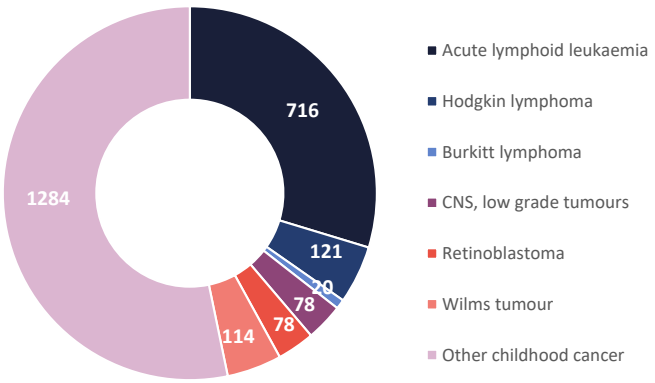
Elimination of Cervical Cancer

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	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	2411
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

VANUATU

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

299,882

Total # cancer cases (2018)	Total # cancer deaths (2018)
225	149

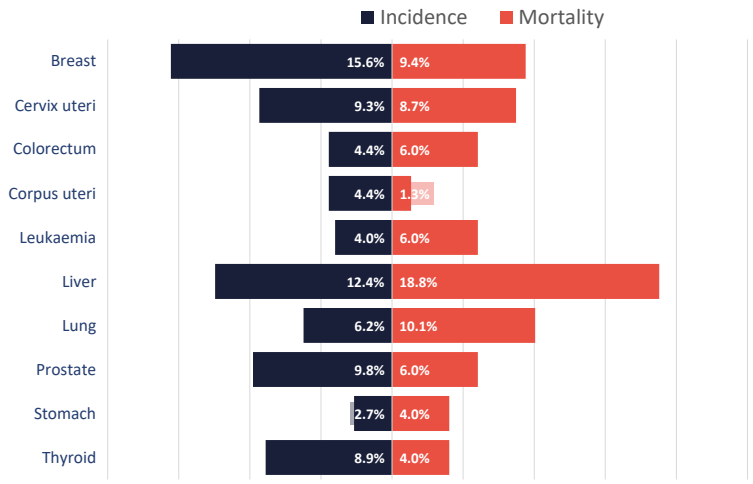
Premature deaths from NCDs (2016)

423

Cancer as % of NCD premature deaths (2016)

31.7%

Most common cancer cases (2018)



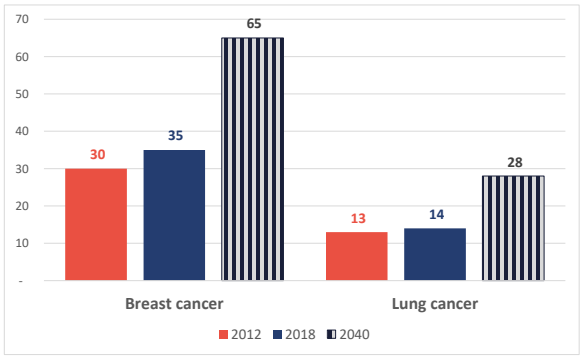
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
15.8%	2.9%	24.2%	4.2%	n/a	2.5%

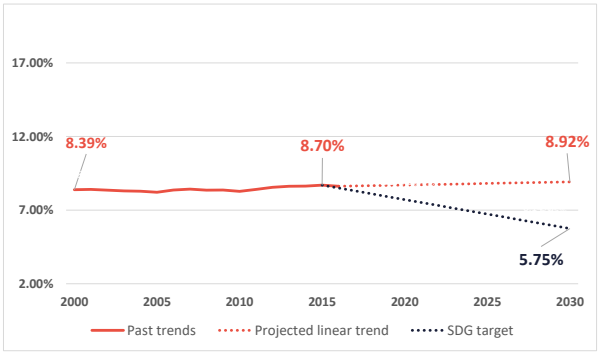
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

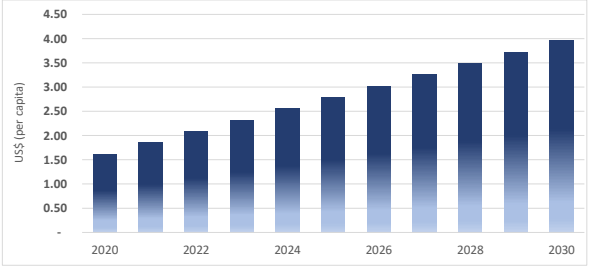


INVESTMENT CASE (2019)

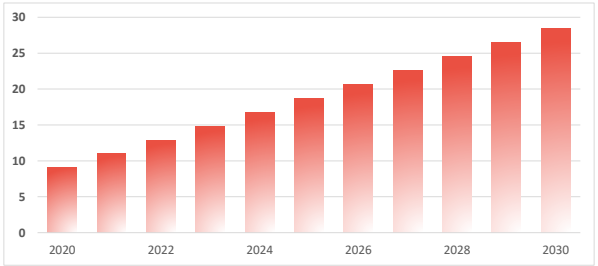
**Lower middle income*

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

Costs per year



Projected lives saved per year



VANUATU

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	0.0
# of mammographs[a]	2020	0.0
# of CT scanners[a]	2020	0.0
# of MRI scanners[a]	2020	0.0
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	222.2
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	0.0
# of medical & pathology lab scientists[a]	2012	2622.2

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	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	44.4
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 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

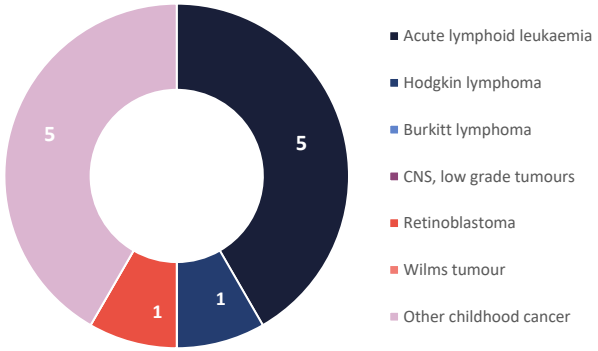
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	yes
Screening programme type	2019	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	12
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

SAMOA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

197,093

Total # cancer cases (2018)	Total # cancer deaths (2018)
343	199

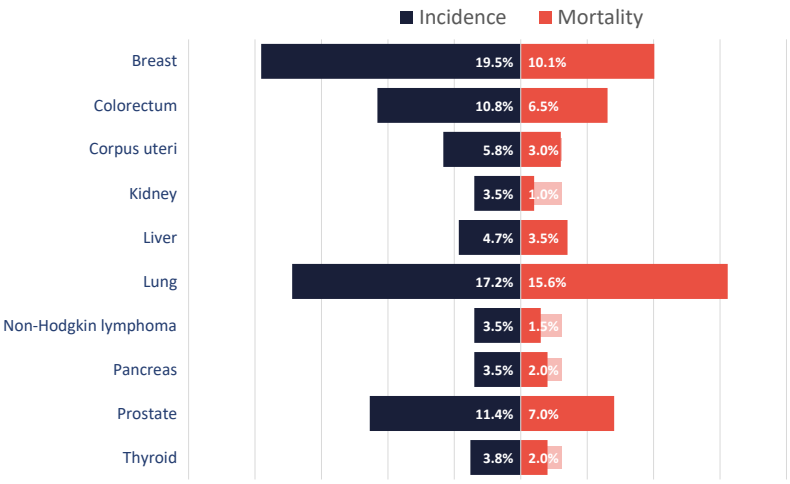
Premature deaths from NCDs (2016)

307

Cancer as % of NCD premature deaths (2016)

29.1%

Most common cancer cases (2018)



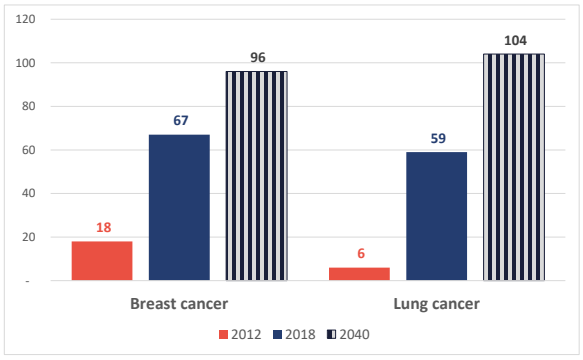
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
20.0%	3.1%	21.5%	5.6%	n/a	1.0%

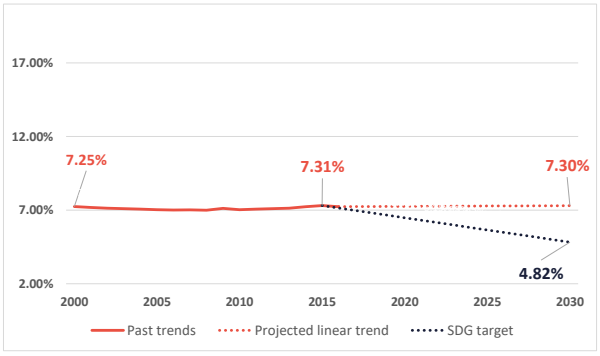
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

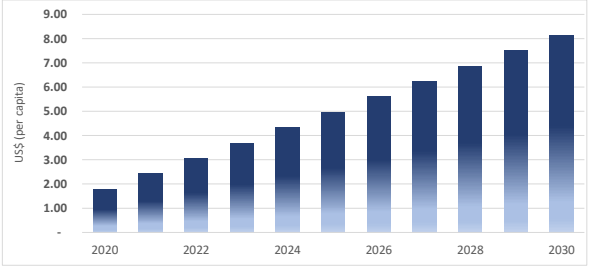


INVESTMENT CASE (2019)

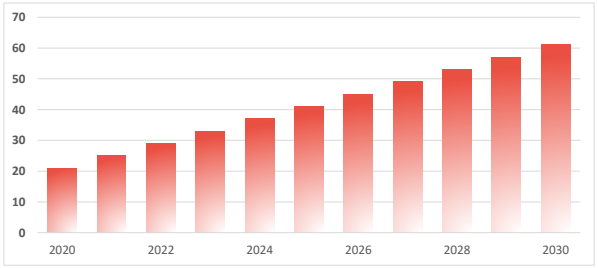
**Upper middle income*

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

Costs per year



Projected lives saved per year



SAMOA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] 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)[a]	2019	0.0
# of mammographs[a]	2020	29.2
# of CT scanners[a]	2020	29.2
# of MRI scanners[a]	2020	0.0
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] 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[a]	2019	n/a
# of medical physicist[a]	2019	n/a
# of surgeons[a]	2014	145.8
# of radiologist[a]	2019	n/a
# of nuclear medicine physician[a]	2019	0.0
# of medical & pathology lab scientists[a]	2014	1078.7

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

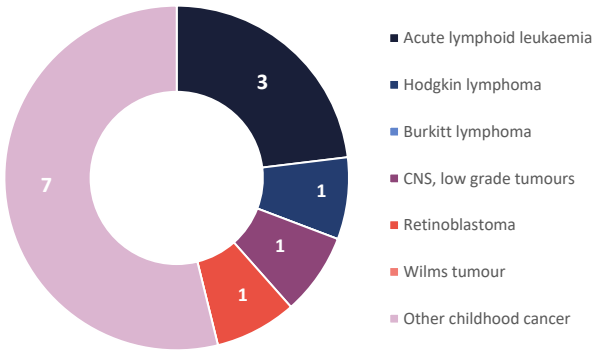
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	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	

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	13
Early detection programme/guidelines	2019	
Defined referral system	2019	

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

YEMEN

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

29,161,922

Total # cancer cases (2018)	Total # cancer deaths (2018)
13,182	9,085

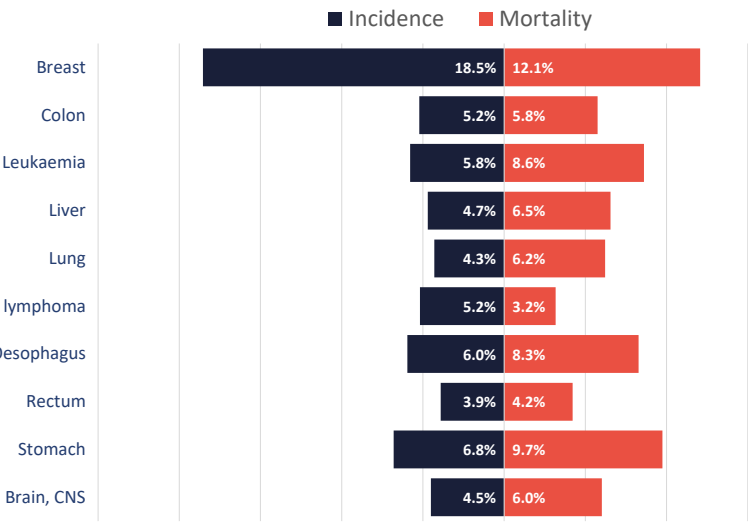
Premature deaths from NCDs (2016)

46,897

Cancer as % of NCD premature deaths (2016)

13.4%

Most common cancer cases (2018)



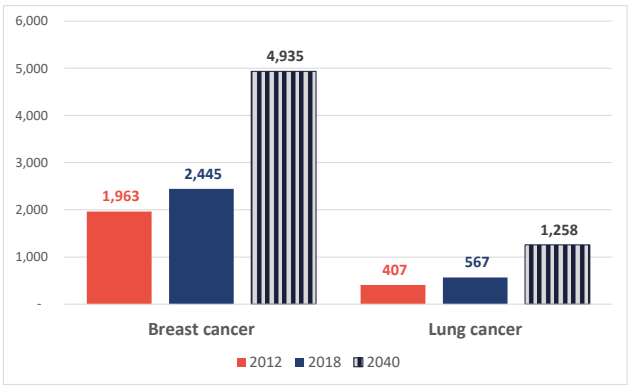
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
16.3%	0.3%	13.4%	2.5%	32.8%	1.4%

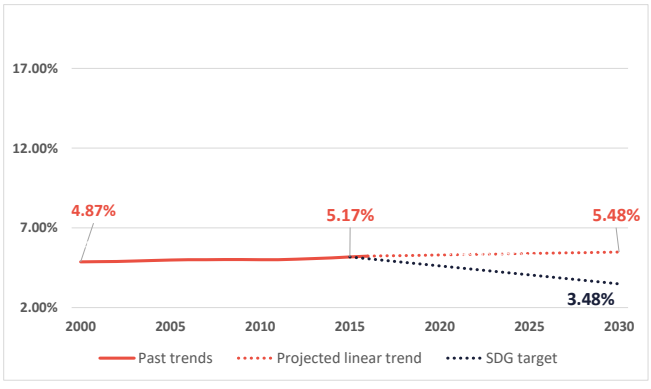
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

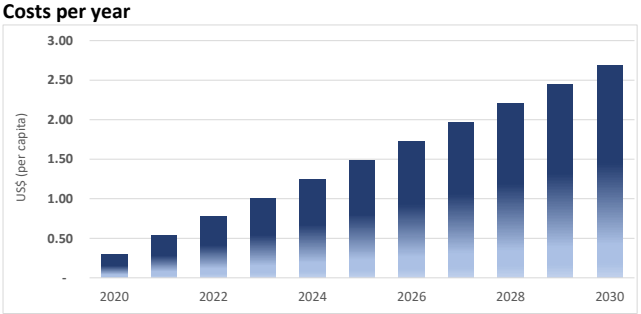


INVESTMENT CASE (2019)

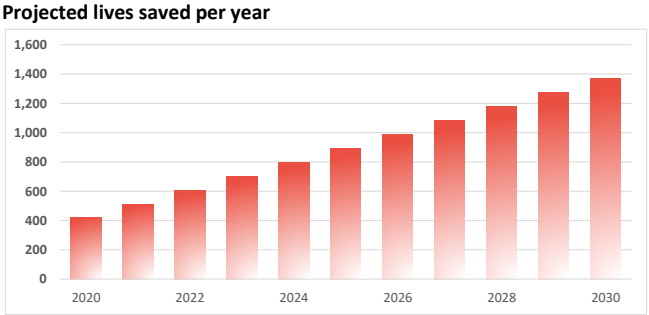
**Low income*

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

Costs per year



Projected lives saved per year



YEMEN

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	0.8
# of mammographs[a]	2020	17.4
# of CT scanners[a]	2020	66.8
# of MRI scanners[a]	2020	23.5
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	4.6
# of surgeons[a]	2014	78.9
# of radiologist[a]	2019	207.1
# of nuclear medicine physician[a]	2019	4.6
# of medical & pathology lab scientists[a]	2010	844.3

FORMULATING RESPONSE

Integrated NCD plan	2019	n/a
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	n/a
# 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	0.8
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 miliion inhabitants per day*

GLOBAL INITIATIVES

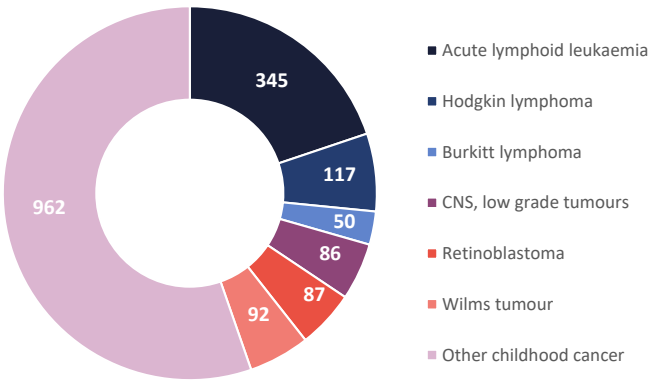
Elimination of Cervical Cancer

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 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

SOUTH AFRICA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

58,558,267

Total # cancer cases (2018)	Total # cancer deaths (2018)
107,467	57,373

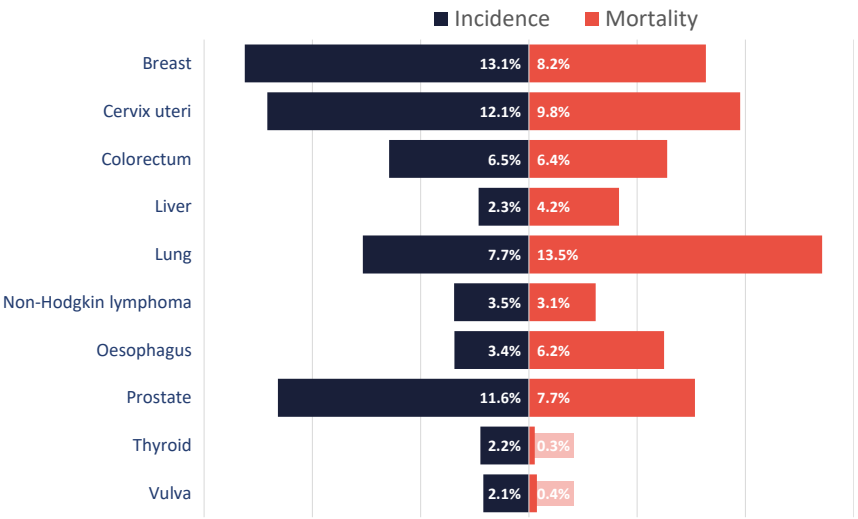
Premature deaths from NCDs (2016)

133,675

Cancer as % of NCD premature deaths (2016)

23.3%

Most common cancer cases (2018)



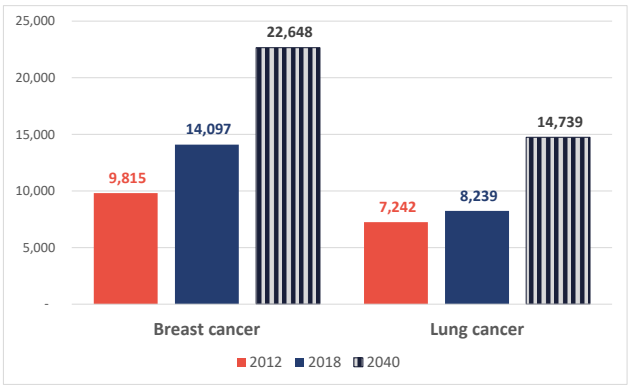
PAFs (population attributable fractions)

17.6%	7.7%	19.6%	3.8%	72.4%	3.6%
Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]

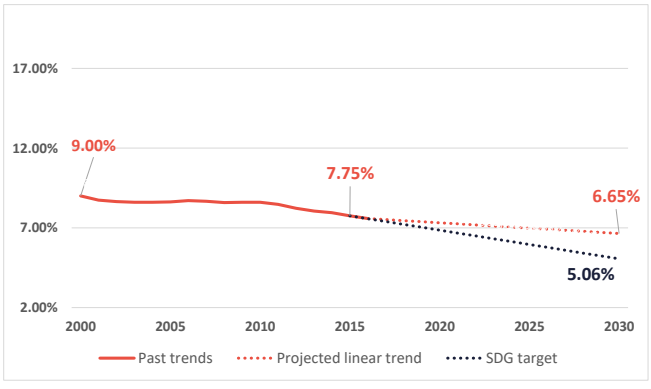
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

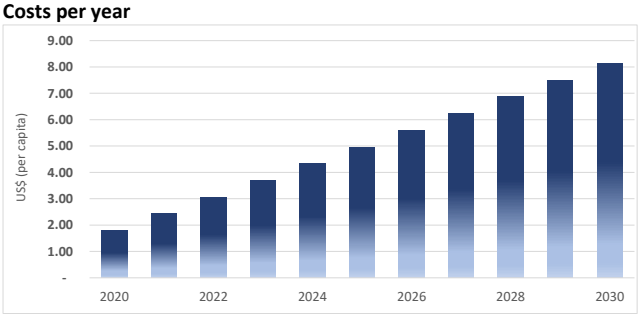


INVESTMENT CASE (2019)

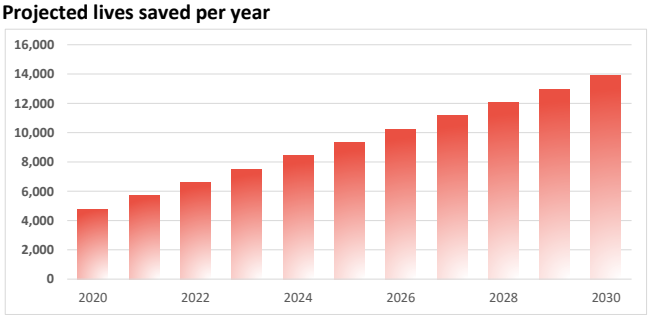
**Upper middle income*

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

Costs per year



Projected lives saved per year



SOUTH AFRICA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	9.0
# of mammographs[a]	2020	27.1
# of CT scanners[a]	2020	28.6
# of MRI scanners[a]	2020	14.3
# of PET or PET/CT scanners[a]	2020	1.3

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	17.2
# of surgeons[a]	2014	321.3
# of radiologist[a]	2019	60.5
# of nuclear medicine physician[a]	2019	6.0
# of medical & pathology lab scientists[a]	2015	13.9

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	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	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	don't know
Palliative care availability: community/home-based care	2019	generally available
Availability of opioids* for pain management	2015-2017	475

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

GLOBAL INITIATIVES

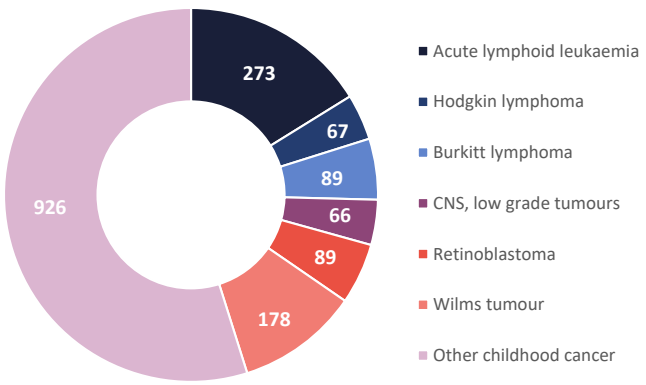
Elimination of Cervical Cancer

HPV vaccination programme coverage	2018	57.4
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	1688
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Annual cancer cases (0-14 years old)



ZAMBIA

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

17,861,034

Total # cancer cases (2018)	Total # cancer deaths (2018)
12,052	7,380

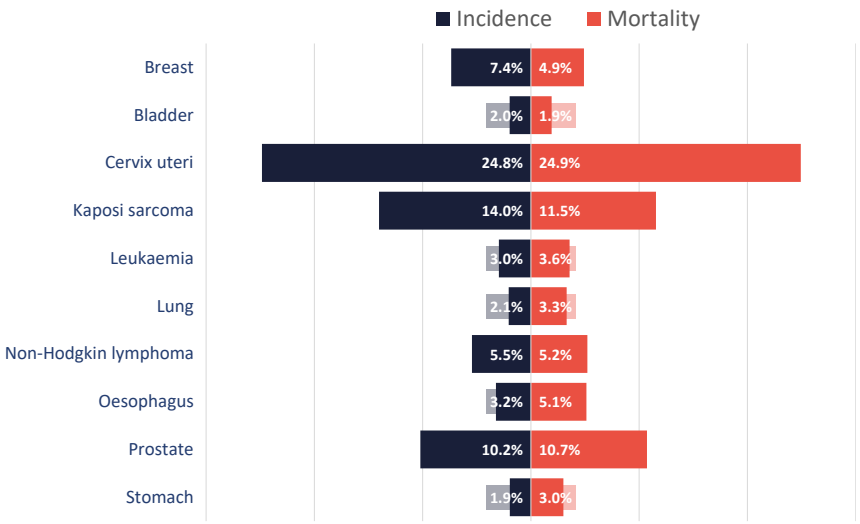
Premature deaths from NCDs (2016)

14,827

Cancer as % of NCD premature deaths (2016)

30.7%

Most common cancer cases (2018)



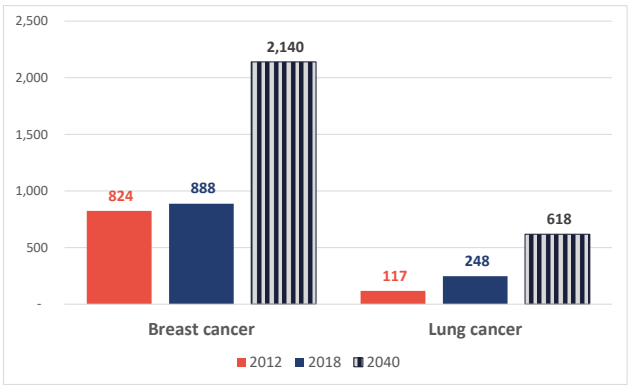
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
9.1%	3.4%	47.9%	0.7%	6.6%	0.8%

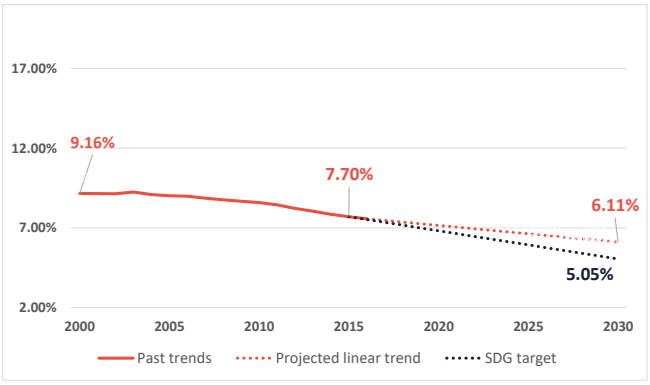
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

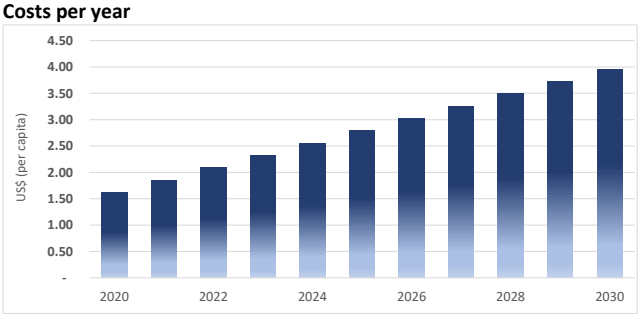


INVESTMENT CASE (2019)

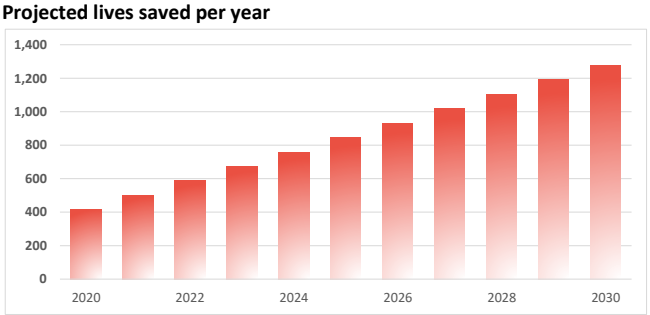
**Lower middle income*

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

Costs per year



Projected lives saved per year



ZAMBIA

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	2.5
# of mammographs[a]	2020	13.3
# of CT scanners[a]	2020	16.6
# of MRI scanners[a]	2020	0.8
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	5.0
# of surgeons[a]	2012	80.5
# of radiologist[a]	2019	8.3
# of nuclear medicine physician[a]	2019	2.5
# of medical & pathology lab scientists[a]	2016	764.2

FORMULATING RESPONSE

Integrated NCD plan	2019	under development
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	no
Breast cancer screening program: Starting age, target population	2019	45

# Public cancer centres per 10,000 cancer patients	2019	0.8
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	20

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

GLOBAL INITIATIVES

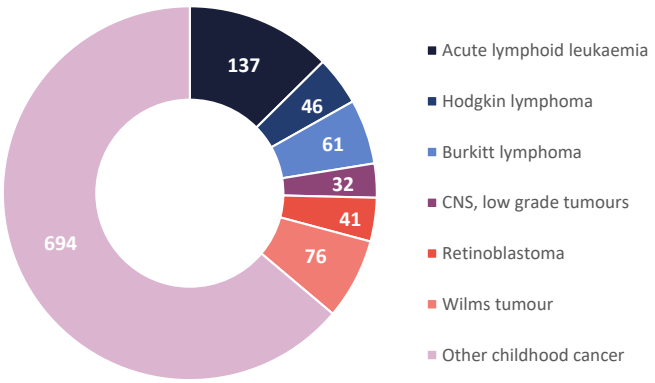
Elimination of Cervical Cancer

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	1087
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

ZIMBABWE

Cancer Country Profile 2020

BURDEN OF CANCER

Total population (2019)

14,645,473

Total # cancer cases (2018)	Total # cancer deaths (2018)
17,465	12,217

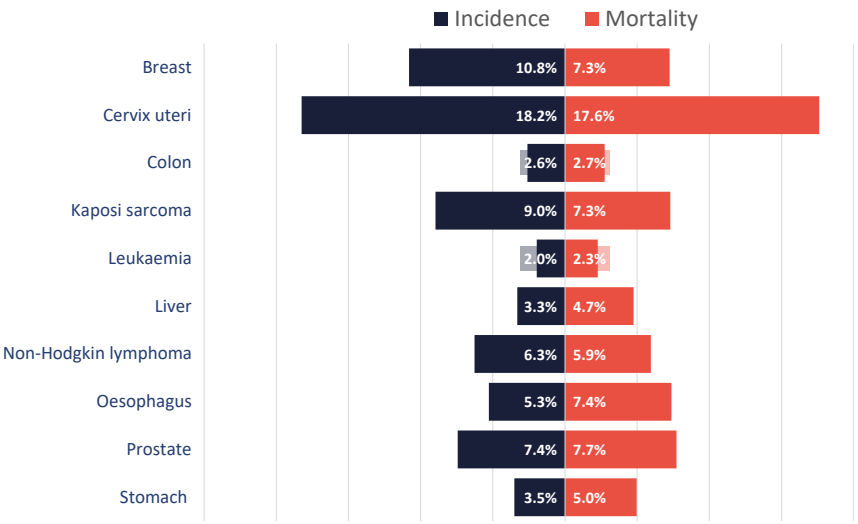
Premature deaths from NCDs (2016)

16,126

Cancer as % of NCD premature deaths (2016)

32.1%

Most common cancer cases (2018)



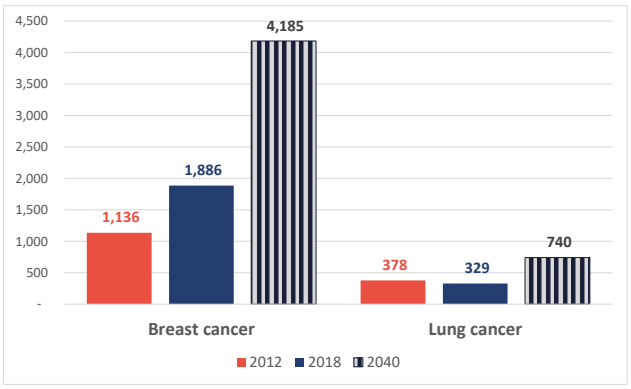
PAFs (population attributable fractions)

Tobacco (2017)[a]	Alcohol (2016)[a]	Infections (2012)[b]	Obesity (2012)[b]	UV (2012)[c]	Occupational risk (2017)[a]
14.1%	2.7%	45.5%	2.2%	49.3%	0.7%

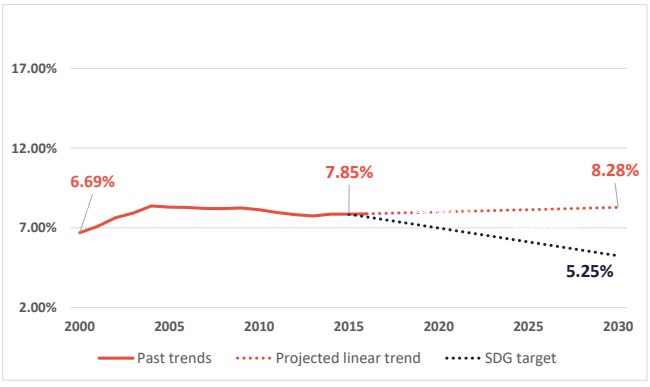
[a] *PAF, cancer deaths* [b] *PAF, cancer cases* [c] *PAF, melanoma cases*

TRENDS

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



Probability of premature death from cancer per year

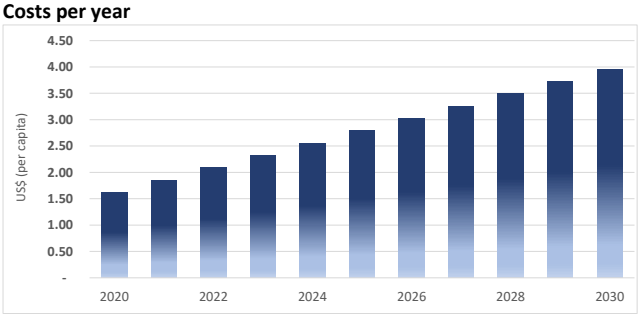


INVESTMENT CASE (2019)

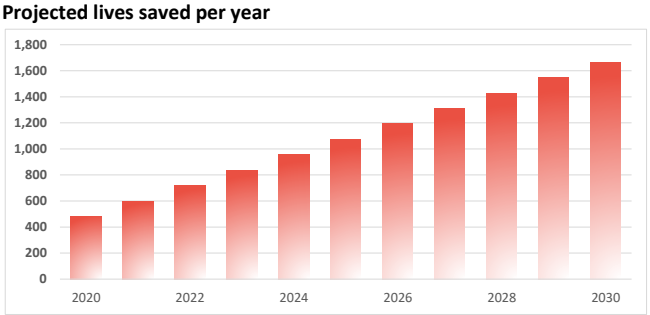
**Lower middle income*

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

Costs per year



Projected lives saved per year



ZIMBABWE

Cancer Country Profile 2020

HEALTH SYSTEM CAPACITY

[a] *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)[a]	2019	4.0
# of mammographs[a]	2020	5.7
# of CT scanners[a]	2020	11.5
# of MRI scanners[a]	2020	2.3
# of PET or PET/CT scanners[a]	2020	0.0

WORKFORCE

[a] *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[a]	2019	n/a
# of medical physicist[a]	2019	2.9
# of surgeons[a]	2014	45.8
# of radiologist[a]	2019	3.4
# of nuclear medicine physician[a]	2019	1.1
# of medical & pathology lab scientists[a]	2014	203.3

FORMULATING RESPONSE

Integrated NCD plan	2019	under development
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	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	1.1
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	32

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

GLOBAL INITIATIVES

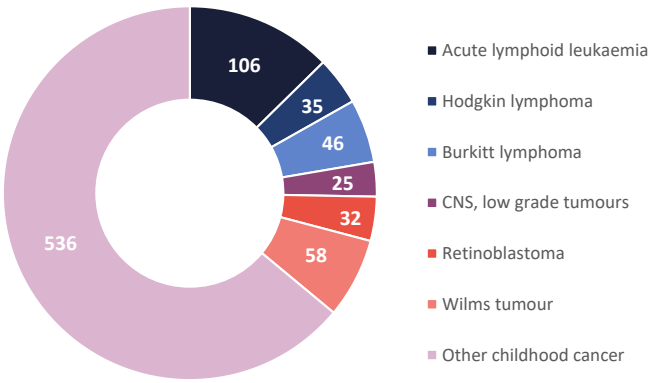
Elimination of Cervical Cancer

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	838
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Annual cancer cases (0-14 years old)



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