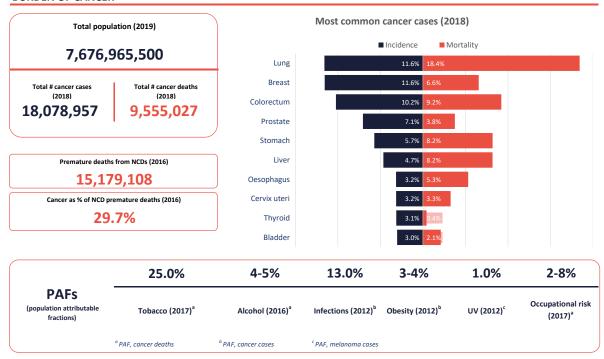
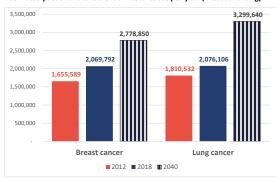
GLOBAL

BURDEN OF CANCER

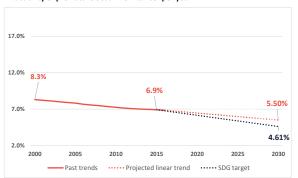


TRENDS

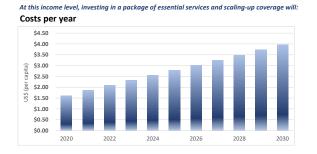
Estimated past and future trends in total cases per year (breast and lung)

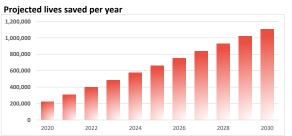


Probability of premature death from cancer per year



INVESTMENT CASE (2019)





GLOBAL

HEALTH SYSTEM CAPACITY

IILALIII SISILIVI CAI ACII	•	
^o per 10,000 cancer patients Availability of population-based cancer registry (PBCR)**	2019	35% of countries have high-quality PBCR
Quality of mortality registration***	2007- 2016	25% of countries have high quality coverage
# of external beam radiotherapy (photon,electron) ^a	2019	6.5 (median), 0-23.8 (range)
# of mammographs ^a	2020	24.5 (median), 0-429.5 (range)
# of CT scanners ^a	2020	30.3 (median), 0-422.8 (range)
# of MRI scanners ^a	2020	14.8 (median), 0-373.9 (range)
# of PET or PET/CT scanners ^a	2020	0.7 (median), 0-30.7 (range)

WORKFORCE

^e per 10,000 cancer patients Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	81% of countries have MoH staff with dedicated time for cancer
# of radiation oncologist ^a	2019	14 (median), 0-180 (range)
# of medical physicist ^a	2019	12 (median), 0-286 (range)
# of surgeons ^a	2019	319 (median), 11-2854 (range)
# of radiologist ^a	2019	128 (median), 0-1502 (range)
# of nuclear medicine physician ^a	2019	6 (median), 0-140 (range)
# of medical & pathology lab scientists ^a	2019	393 (median), 3-4000 (range)

FORMULATING RESPONSE

Integrated NCD plan	2019	74% of countries have operational integrated NCD plans
NCCP (including cancer types)	2019	56% of countries have operational cancer plan
MPOWER measures fully implemented and achieved	2018	1 (median), 0-5 (range)
Cancer management guidelines	2019	70% of countries have cancer guideline
Palliative care plan	2019	48% of countries have operational NCD integrated plan that includes palliative care
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	60% of the countries, worldwide, have generally available treatment capacity
Breast cancer screening program	2019	62% of countries have breast cancer screening programme
Breast cancer screening program: Starting age, target population	2019	43% of countries adhere to best practice

# Public cancer centres per 10,000 cancer patients	2019	2 (median),0-700 (range)
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	16% of countries have all 4 cancer early detection programme/guidelines
Pathology services	2019	81% of countries have generally available pathology services
Bone marrow transplantation capacity	2019	31% of countries have generally available BMT
Palliative care availability: community/home-based care	2019	40% of countries have generally available palliative care
Availability of opioids* for pain management	2015-2017	69 (median), 0-32,394 (range)

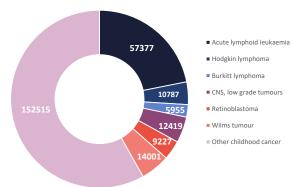
^{*}Defined daily doses for statistical purposes (S-DDD) per miliion inhabitants per day

GLOBAL INITIATIVES

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

Global Initiative for Childhood Cancer

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



AFGHANISTAN

BURDEN OF CANCER



38,041,757

Total # cancer cases (2018)
19,450

Total # cancer deaths (2018)

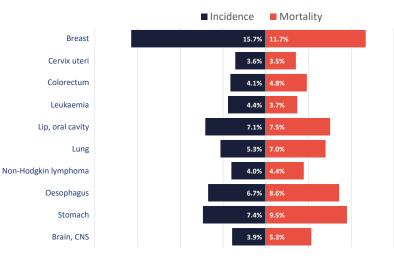
14,746

Premature deaths from NCDs (2016) 53,425

Cancer as % of NCD premature deaths (2016)

23.6%

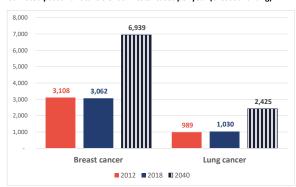
Most common cancer cases (2018)



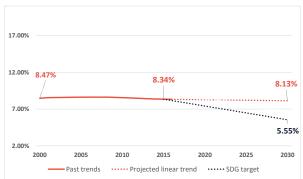


TRENDS

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

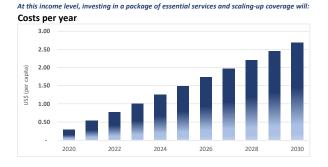


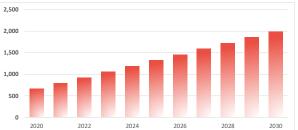
Probability of premature death from cancer per year



INVESTMENT CASE (2019)

*Low income





Other childhood cancer

AFGHANISTAN

per 10,000 cancer patients Availability of population-based cancer	2019	PBCR	WORKFORCE		
egistry (PBCR)**	2013	T Delt	° per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	No coverage	dedicates significant proportion of their time to cancer	2019	ye
of external beam radiotherapy	2019	0.0	# of radiation oncologist ^a	2019	n/
photon,electron) ^a	2019	0.0	# of medical physicist ^a	2019	n/
of mammographs ^a	2020	1.0	# of surgeons ^a	n/a	n/
of CT scanners ^a	2020	3.6	# of radiologist ^a	2019	n/
of MRI scanners ^a	2020	1.5	# of nuclear medicine physician ^a	2019	n/
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	n/a	n/
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	0.5
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally no availabl
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally no availabl
Palliative care included in their operational, ntegrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally no availabl
f of treatment services (surgery, radiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	
Breast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per n	niliion inhabitants per	day
Breast cancer screening program: Starting age, target population	2019	n/a			
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	173
Cervical cancer screening	2019	no	Early detection programme/guidelines	2019	n
Screening programme type	2019	n/a	Defined referral system	2019	n
creening programme method	2019	n/a	(0.55		
Screening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	no			
Defined referral system	2019	no			nphoid leukaemia
			517	■ Hodgkin I	ymphoma
			925	■ Burkitt ly	mphoma
				■ CNS, low	grade tumours
			88	■ Retinobla	stoma
			56 56 14	■ Wilms tu	mour

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

ANGOLA

BURDEN OF CANCER

Total population (2019)

31,825,299

Total # cancer cases (2018)
15,949

Total # cancer deaths (2018)
10,569

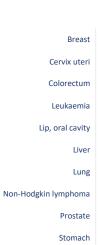
Premature deaths from NCDs (2016)

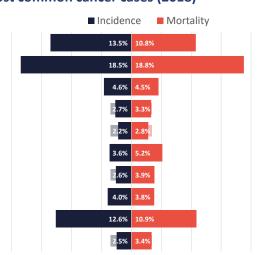
24,656

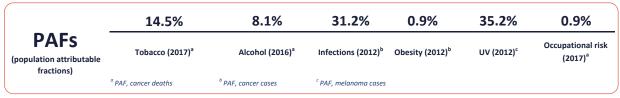
Cancer as % of NCD premature deaths (2016)

22.6%

Most common cancer cases (2018)

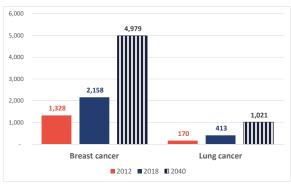




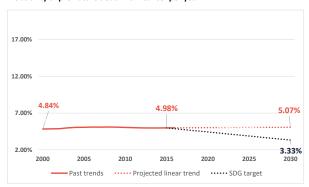


TRENDS

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

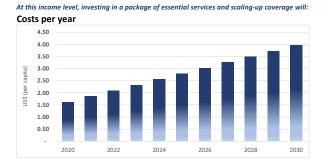


Probability of premature death from cancer per year

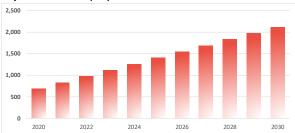


INVESTMENT CASE (2019)

*Lower middle income









HEALTH SYSTEM CAPACITY

per 10,000 cancer patients Availability of population-based cancer	2045	Partitional and the	WORKFORCE		
egistry (PBCR)**	2019	Registration activity	^o per 10,000 cancer patients Available staff in Ministry of Health who		
uality of mortality registration***	2007-2016	No coverage	dedicates significant proportion of their time to cancer	2019	ye
of external beam radiotherapy	2019	1.9	# of radiation oncologist ^a	2019	n/
hoton, electron) ^a	2013	1.5	# of medical physicist ^a	2019	n/
of mammographs ^a	2020	7.5	# of surgeons ^a	n/a	n/
of CT scanners ^a	2020	9.4	# of radiologist ^a	2019	18.
of MRI scanners ^a	2020	0.6	# of nuclear medicine physician ^a	2019	1.
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2004	n/
ORMULATING RESPONSE					
tegrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients	2019	0.6
CCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(
IPOWER measures fully implemented and chieved	2018	0	Pathology services	2019	generally availab
ancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally no availab
alliative care included in their operational, tegrated NCD plan	2019	n/a	Palliative care availability: community/home-based care	2019	generally no availab
of treatment services (surgery, diotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	
reast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per m	iliion inhabitants	per day
reast cancer screening program: Starting ge, target population	2019	n/a			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
PV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	189
ervical cancer screening	2019	no	Early detection programme/guidelines	2019	n
creening programme type	2019	n/a	Defined referral system	2019	n
creening programme method	2019	n/a			
reening participation rates	2019	n to	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	n/a no			
my desection programme/guidennes	2019	110	194	■ Acute	lymphoid leukaemi
efined referral system	2019	yes	134	■ Hodgk	in lymphoma
			61	■ Burkit	t lymphoma
			1256	■ CNS, le	ow grade tumours
			126	■ Retino	blastoma
				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

ALBANIA

BURDEN OF CANCER



2,880,913

Total # cancer cases (2018) **8,294**

Total # cancer deaths (2018)
4,693

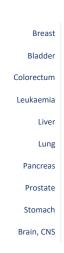
Premature deaths from NCDs (2016)

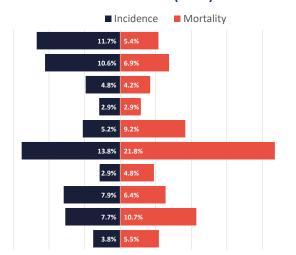
6,672

Cancer as % of NCD premature deaths (2016)

39.7%

Most common cancer cases (2018)

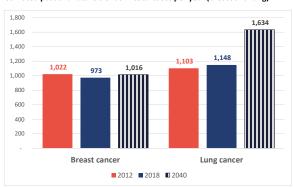




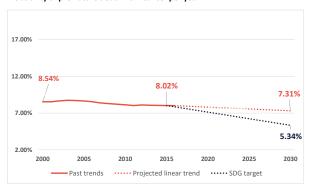
	31.0%	4.9%	13.4%	3.7%	30.2%	1.9%
PAFS (population attributable	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk (2017) ^a
fractions)	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			

TRENDS

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

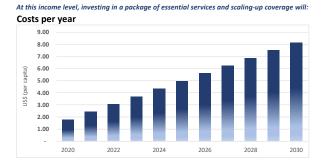


Probability of premature death from cancer per year

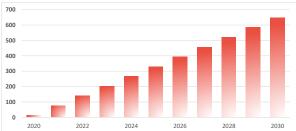


INVESTMENT CASE (2019)

*Upper middle income







Other childhood cancer

ALBANIA

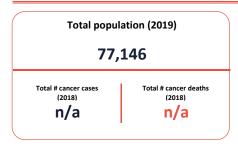
HЕ	VI.	ТШ	CV	СТ	EM	$\mathbf{C}\mathbf{A}$	DΛ	CITY	v
пь	AL	ιп.	э і		CIVI	LA	ГΜ	CII.	•

° per 10,000 cancer patients Availability of population-based cancer	2242		WORKFORCE		
egistry (PBCR)**	2019	Registration activity	° per 10,000 cancer patients		
quality of mortality registration***	2007-2016	Low	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	ye
of external beam radiotherapy	2242		# of radiation oncologist ^a	2019	8.4
photon,electron) ^a	2019	6.0	# of medical physicist ^a	2019	2.
f of mammographs ^a	2020	21.7	# of surgeons ^a	n/a	n/a
# of CT scanners ^a	2020	53.1	# of radiologist ^a	2019	36.
of MRI scanners ^a	2020	14.5	# of nuclear medicine physician ^a	2019	3.
# of PET or PET/CT scanners ^a	2020	1.2	# of medical & pathology lab scientists ^a	n/a	n/a
FORMULATING RESPONSE					
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	1.2
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally availabl
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally no availabl
Palliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally no availabl
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	32
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per m.	iliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	30			
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	8
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	n
Screening programme type	2019	organised	Defined referral system	2019	ne
Screening programme method	2019	HPV test			
Screening participation rates	2019	10%-50%	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	yes			
				■ Acute	lymphoid leukaemia
Defined referral system	2019	yes	18	■ Hodgk	in lymphoma
			44	■ Burkit	t lymphoma
			4	CNS, le	ow grade tumours
			2	■ Retino	blastoma
			8	■ Wilms	tumour
			3 2		

^{**}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

ANDORRA

BURDEN OF CANCER

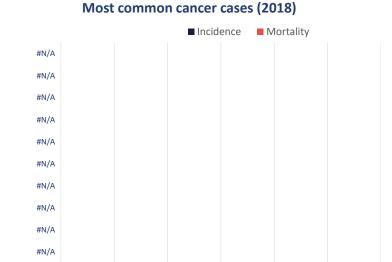




n/a

Cancer as % of NCD premature deaths (2016)

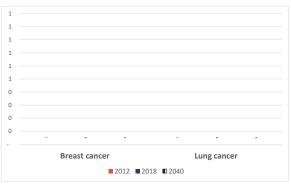
n/a



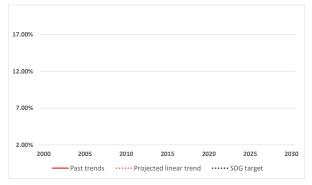


TRENDS

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



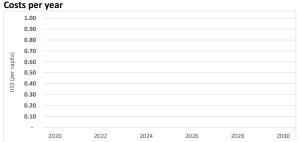
Probability of premature death from cancer per year

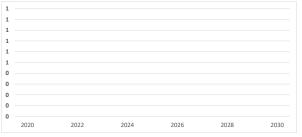


INVESTMENT CASE (2019)

*High income

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





ANDORRA

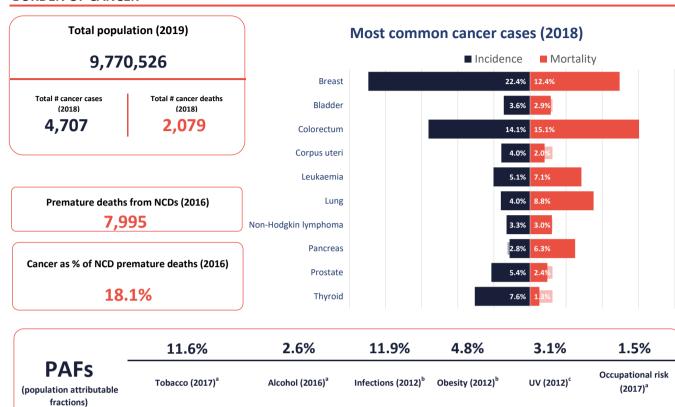
HEALTH SYSTEM CAPACITY

Pper 10,000 cancer patients Availability of population-based cancer				WORKFORCE				
registry (PBCR)**			^o per 10,000 cancer patients Available staff in Ministry of Health who					
Quality of mortality registration***	2007-2016	Medium	dedicates significant proportion of their time to cancer	2019	ye			
of external beam radiotherapy	2019	n/a	# of radiation oncologist ^a	2019	n/			
	2020	2/0	# of medical physicist ^a	2019 2014	n/			
f of mammographs ^a		n/a	# of surgeons ^a	2014	n/			
# of CT scanners ^a # of MRI scanners ^a	2020 2020	n/a n/a	# of radiologist ^a	2019	n/ n/			
of PET or PET/CT scanners ^a	2020	n/a	# of nuclear medicine physician ^a # of medical & pathology lab scientists ^a	n/a	n/			
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			, , , , , , , , , , , , , , , , , , ,					
FORMULATING RESPONSE								
ntegrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients	2019	n/a			
ICCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s			
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally availabl			
ancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally availabl			
alliative care included in their operational, ntegrated NCD plan	2019	n/a	Palliative care availability: community/home-based care	2019	generally availabl			
of treatment services (surgery, adiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	313			
reast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per	miliion inhabitants	per day			
reast cancer screening program: Starting ge, target population	2019	50						
GLOBAL INITIATIVES								
limination of Cervical Cancer			Global Initiative for Childhood Cancer					
IPV vaccination programme coverage	2018	0	Annual cancer cases (0-14 years old)	2020	n/			
Cervical cancer screening	2019	no	Early detection programme/guidelines	2019	n			
creening programme type	2019	n/a	Defined referral system	2019	n			
creening programme method	2019	n/a						
creening participation rates	2019	n/a	Annual cancer cases (0-14 years old)					
arly detection programme/guidelines	2019	no						
			0	■ Acute	lymphoid leukaemia			
efined referral system	2019	no		■ Hodgl	kin lymphoma			
				■ Burkit	t lymphoma			
				■ CNS, I	ow grade tumours			
				■ Retino	oblastoma			
				■ Wilms	s tumour			
				■ Othor	childhood cancer			
				= Other	ciniunioud cancel			

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

UNITED ARAB EMIRATES

BURDEN OF CANCER

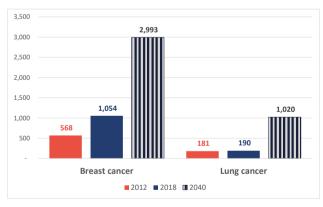


^b PAF, cancer cases

TRENDS

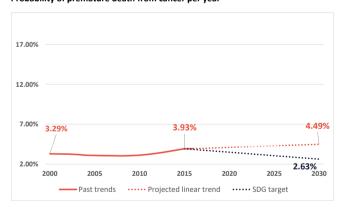
Estimated past and future trends in total cases per year (breast and lung)

^a PAF, cancer deaths



Probability of premature death from cancer per year

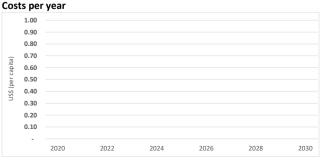
^c PAF, melanoma cases

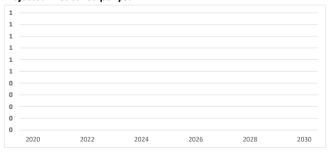


INVESTMENT CASE (2019)



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





■ Wilms tumour

Other childhood cancer

UNITED ARAB EMIRATES

HEALTH SYSTEM CAPACITY

Availability of population-based cancer	2010	ppep	WORKFORCE		
registry (PBCR)**	2019	PBCR	° per 10,000 cancer patients		
Quality of mortality registration***	2007-2016	Low	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of external beam radiotherapy	2010	40.5	# of radiation oncologist ^a	2019	n/a
photon,electron) ^a	2019	10.6	# of medical physicist ^a	2019	74.4
# of mammographs ^a	2020	129.6	# of surgeons ^a	n/a	n/a
# of CT scanners ^a	2020	422.8	# of radiologist ^a	2019	1064.4
# of MRI scanners ^a	2020	373.9	# of nuclear medicine physician ^a	2019	31.9
# of PET or PET/CT scanners ^a	2020	12.7	# of medical & pathology lab scientists ^a	n/a	n/a
FORMULATING RESPONSE					
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	6.4
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care		generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	172
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per r	niliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	40			
age, target population	2019	40			
GLOBAL INITIATIVES	2019	40	Global Initiative for Childhood Cancer		
GLOBAL INITIATIVES Elimination of Cervical Cancer	2019	26.2	Global Initiative for Childhood Cancer Annual cancer cases (0-14 years old)	2020	219
GLOBAL INITIATIVES Elimination of Cervical Cancer HPV vaccination programme coverage				2020 2019	219 no
GLOBAL INITIATIVES Elimination of Cervical Cancer HPV vaccination programme coverage Cervical cancer screening	2018	26.2	Annual cancer cases (0-14 years old)		
GLOBAL INITIATIVES Elimination of Cervical Cancer HPV vaccination programme coverage Cervical cancer screening Screening programme type	2018 2019	26.2 yes	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system	2019	no
GLOBAL INITIATIVES Elimination of Cervical Cancer HPV vaccination programme coverage Cervical cancer screening Screening programme type Screening programme method	2018 2019 2019	26.2 yes opportunistic	Annual cancer cases (0-14 years old) Early detection programme/guidelines	2019	no
GLOBAL INITIATIVES Elimination of Cervical Cancer HPV vaccination programme coverage Cervical cancer screening Screening programme type Screening programme method Screening participation rates	2018 2019 2019 2019	26.2 yes opportunistic PAP smear	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system	2019	no
GLOBAL INITIATIVES Elimination of Cervical Cancer HPV vaccination programme coverage Cervical cancer screening Screening programme type Screening programme method Screening participation rates Early detection programme/guidelines	2018 2019 2019 2019 2019	26.2 yes opportunistic PAP smear <10%	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system	2019 2019	no yes
	2018 2019 2019 2019 2019 2019	26.2 yes opportunistic PAP smear <10% yes	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system Annual cancer cases (0-14 years old)	2019 2019 • Acute • Hodgk	no yes Iymphoid leukaemia kin lymphoma
GLOBAL INITIATIVES Elimination of Cervical Cancer HPV vaccination programme coverage Cervical cancer screening Screening programme type Screening programme method Screening participation rates Early detection programme/guidelines	2018 2019 2019 2019 2019 2019	26.2 yes opportunistic PAP smear <10% yes	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system Annual cancer cases (0-14 years old)	2019 2019 Acute Hodgk	no yes Iymphoid leukaemia

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

ARGENTINA

BURDEN OF CANCER



44,780,675

Total # cancer cases (2018)
129,047

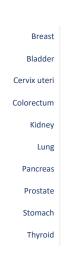
Total # cancer deaths (2018) 68,778

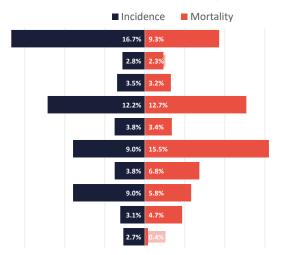
Premature deaths from NCDs (2016) 80.994

Cancer as % of NCD premature deaths (2016)

37.3%

Most common cancer cases (2018)

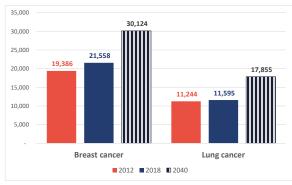




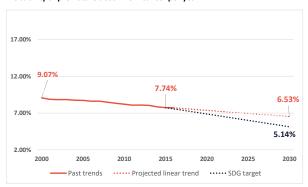


TRENDS

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

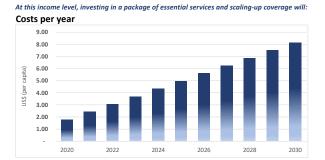


Probability of premature death from cancer per year

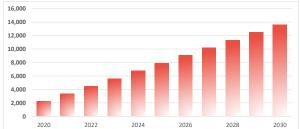


INVESTMENT CASE (2019)

*Upper middle income





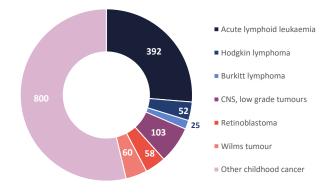


ARGENTINA

per 10,000 cancer patients					
Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR	WORKFORCE		
Quality of mortality registration***	2007-2016	Medium	^a per 10,000 cancer patients Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	no
# of external beam radiotherapy	2019	9.3	# of radiation oncologist ^a	2019	n/s
photon, electron) a	2013	5.5	# of medical physicist ^a	2019	12.
of mammographs ^a	2020	46.5	# of surgeons ^a	n/a	n/
# of CT scanners ^a	2020	147.2	# of radiologist ^a	2019	310.
of MRI scanners ^a	2020	50.4	# of nuclear medicine physician ^a	2019	31.
# of PET or PET/CT scanners ^a	2020	3.0	# of medical & pathology lab scientists a	2004	1521.
FORMI II ATING RESPONSE					
FORMULATING RESPONSE	2040		# Public cancer centres per 10,000 cancer	2019	n/a
Integrated NCD plan	2019	operational	patients	2019	11/4
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(
MPOWER measures fully implemented and achieved	2018	3	Pathology services	2019	generally availabl
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	don't know
Palliative care included in their operational, ntegrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	don't kno
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	72
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per r	miliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	50	. , , ,		•
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	57.1	Annual cancer cases (0-14 years old)	2020	149
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	ye
Screening programme type	2019	organised	Defined referral system	2019	Ve

nation of Cervical Cancer		
accination programme coverage	2018	57.1
al cancer screening	2019	yes
ning programme type	2019	organised
ning programme method	2019	HPV test
ning participation rates	2019	don't know
detection programme/guidelines	2019	yes
ed referral system	2019	yes

Annual cancer cases (0-14 years old)	2020	1490
Early detection programme/guidelines	2019	yes
Defined referral system	2019	ves



ARMENIA

BURDEN OF CANCER

Total population (2019)

2,957,728

Total # cancer cases (2018) **8,835**

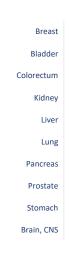
Total # cancer deaths (2018)
6,394

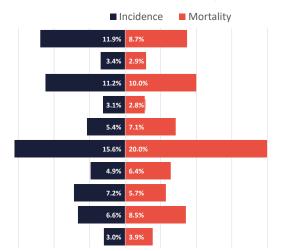
Premature deaths from NCDs (2016) 8,460

Cancer as % of NCD premature deaths (2016)

50.7%

Most common cancer cases (2018)

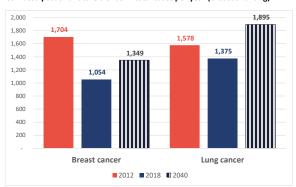




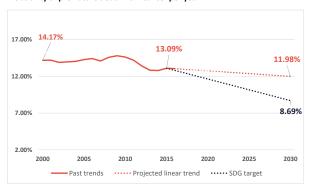


TRENDS

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

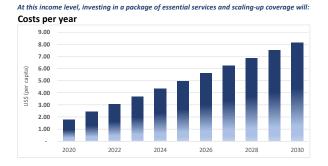


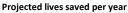
Probability of premature death from cancer per year

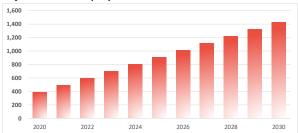


INVESTMENT CASE (2019)

*Upper middle income







Other childhood cancer

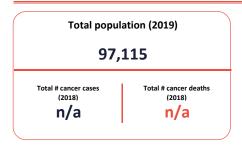
ARMENIA

Availability of population-based cancer	2019	Registration activity	WORKFORCE		
egistry (PBCR)** Quality of mortality registration***	2007-2016	High	[°] per 10,000 concer patients Available staff in Ministry of Health who dedicates significant proportion of their	2019	yes
to for the second to the second			time to cancer # of radiation oncologist ^a	2019	n/a
f of external beam radiotherapy photon,electron) ^a	2019	3.4	# of radiation oncologist # of medical physicist ^a	2019	5.7
f of mammographs ^a	2020	7.9	# of surgeons ^a	2014	1144.3
f of CT scanners ^a	2020	37.4	# of radiologist ^a	2019	305.6
f of MRI scanners ^a	2020	13.6	# of nuclear medicine physician ^a	2019	7.9
of PET or PET/CT scanners ^a	2020	1.1	# of medical & pathology lab scientists ^a	n/a	n/a
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	n/a
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally no available
Palliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally no available
f of treatment services (surgery, adiotherapy, chemotherapy)	2019	2	Availability of opioids* for pain management	2015-2017	29
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per r	niliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	30			
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	2	Annual cancer cases (0-14 years old)	2020	9:
	2019	yes	Early detection programme/guidelines		ye
Cervical cancer screening			Early actection programme, gardennes	2019	
Cervical cancer screening screening programme type	2019	organised	Defined referral system	2019	ye
	2019 2019	organised PAP smear	Defined referral system		ye
screening programme type		PAP smear			ye
icreening programme type creening programme method creening participation rates	2019 2019	PAP smear	Defined referral system		ye
Screening programme type	2019	PAP smear	Defined referral system Annual cancer cases (0-14 years old)	2019	
icreening programme type creening programme method creening participation rates	2019 2019	PAP smear	Defined referral system	2019	ye : lymphoid leukaemia iin lymphoma
icreening programme type icreening programme method icreening participation rates icreening detection programme/guidelines	2019 2019 2019	PAP smear 10%-50% yes	Defined referral system Annual cancer cases (0-14 years old)	2019 ■ Acute ■ Hodgk	lymphoid leukaemia
icreening programme type icreening programme method icreening participation rates icreening detection programme/guidelines	2019 2019 2019	PAP smear 10%-50% yes	Defined referral system Annual cancer cases (0-14 years old)	2019 Acute Hodgk Burkit	lymphoid leukaemia in lymphoma
icreening programme type icreening programme method icreening participation rates icreening detection programme/guidelines	2019 2019 2019	PAP smear 10%-50% yes	Defined referral system Annual cancer cases (0-14 years old)	2019AcuteHodgkBurkitCNS, le	lymphoid leukaemia iin lymphoma t lymphoma

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

ANTIGUA AND BARBUDA

BURDEN OF CANCER

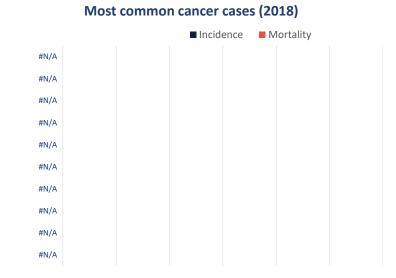


Premature deaths from NCDs (2016)

232

Cancer as % of NCD premature deaths (2016)

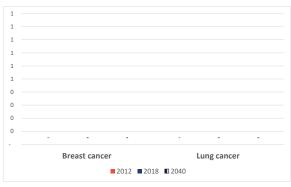
30.4%



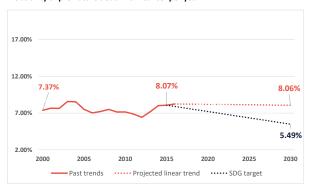


TRENDS

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



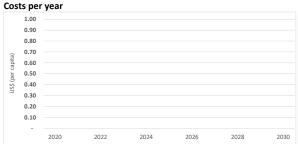
Probability of premature death from cancer per year

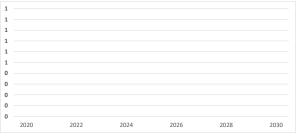


INVESTMENT CASE (2019)

*High income

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





Other childhood cancer

ANTIGUA AND BARBUDA

vailability of population-based cancer	2019	No information	WORKFORCE		
egistry (PBCR)**	2013	No information	^a per 10,000 cancer patients Available staff in Ministry of Health who		
uality of mortality registration***	2007-2016	Medium	dedicates significant proportion of their time to cancer	2019	n/a
of external beam radiotherapy	2019	n/a	# of radiation oncologist ^a	2019	n/a
photon,electron) ^a			# of medical physicist ^a	2019	n/a
of mammographs ^a	2020	n/a	# of surgeons ^a	2014	n/a
of CT scanners ^a	2020	n/a	# of radiologist ^a	2019	n/a
of MRI scanners ^a	2020	n/a	# of nuclear medicine physician ^a	2019	n/a
of PET or PET/CT scanners ^a	2020	n/a	# of medical & pathology lab scientists ^a	2007	n/a
ORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	n/a
CCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s
IPOWER measures fully implemented and chieved	2018	2	Pathology services	2019	generally available
ancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally no available
alliative care included in their operational, itegrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally available
of treatment services (surgery, adiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	C
reast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per I	miliion inhabitants	per day
reast cancer screening program: Starting ge, target population	2019	n/a			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
PV vaccination programme coverage	2018	0	Annual cancer cases (0-14 years old)	2020	:
ervical cancer screening	2019	no	Early detection programme/guidelines	2019	no
creening programme type	2019	n/a	Defined referral system	2019	ye
creening programme method	2019	n/a			
creening participation rates	2019		Annual cancer cases (0-14 years old)		
		n/a			
arly detection programme/guidelines	2019	no		■ Acute	lymphoid leukaemia
	2019	yes		■ Hodgk	kin lymphoma
efined referral system	2013				
efined referral system	2013		1	■ Burkit	t lymphoma
efined referral system	2013		1		t lymphoma
efined referral system	2013		1	■ CNS, I	

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

AUSTRALIA

BURDEN OF CANCER

Total population (2019)

25,203,200

Total # cancer cases (2018)
197,876

Total # cancer deaths (2018)
49,500

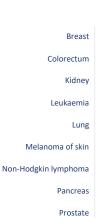
Premature deaths from NCDs (2016)

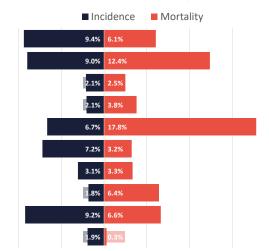
32,148

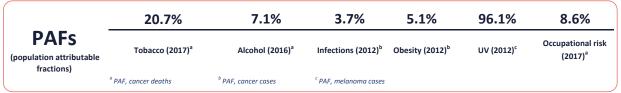
Cancer as % of NCD premature deaths (2016)

50.0%

Most common cancer cases (2018)



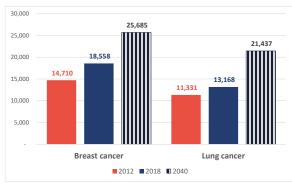




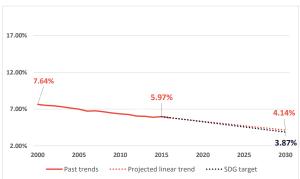
Thyroid

TRENDS

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



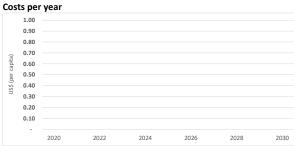
Probability of premature death from cancer per year

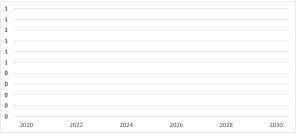


INVESTMENT CASE (2019)

*High income

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





AUSTRALIA

^a per 10,000 cancer patients					
Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
registry (PBCR)**			° per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	High	dedicates significant proportion of their	2019	yes
			time to cancer		
of external beam radiotherapy	2019	11.2	# of radiation oncologist ^a	2019	11.2
photon,electron) ^a	2019	11.2	# of medical physicist ^a	2019	36.2
of mammographs ^a	2020	28.9	# of surgeons ^a	2015	223.5
of CT scanners ^a	2020	80.1	# of radiologist ^a	2019	101.7
of MRI scanners ^a	2020	18.6	# of nuclear medicine physician ^a	2019	20.2
of PET or PET/CT scanners ^a	2020	4.0	# of medical & pathology lab scientists a	n/a	n/a
FORMULATING RESPONSE					

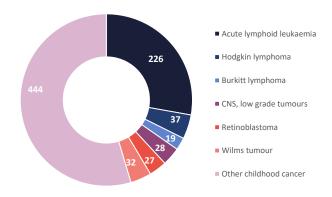
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	n/a
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
MPOWER measures fully implemented and achieved	2018	4	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	11043
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per	miliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	50			

GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	80.2
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	HPV test
Screening participation rates	2019	>50% and <70%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	813
Early detection programme/guidelines	2019	no
Defined referral system	2019	yes



AUSTRIA

BURDEN OF CANCER



8,955,108

Total # cancer cases (2018)
45,812

Total # cancer deaths (2018)
21,936

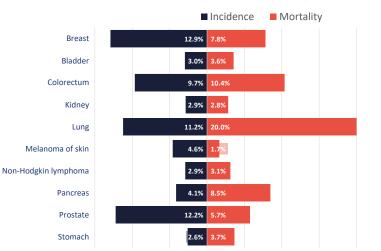
Premature deaths from NCDs (2016)

15,512

Cancer as % of NCD premature deaths (2016)

48.2%

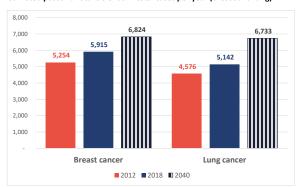
Most common cancer cases (2018)



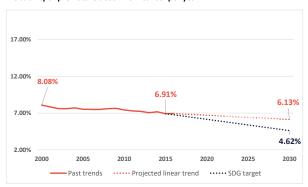


TRENDS

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



Probability of premature death from cancer per year

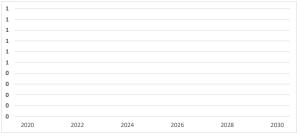


INVESTMENT CASE (2019)

*High income

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





yes
21.8
45.8
1695.4
347.6
50.9
n/a

AUSTRIA

HEALTH SYSTEM CAPACITY

per 10,000 cancer patients				
Availability of population-based cancer	2019	High quality PBCR	WORKFORCE	
egistry (PBCR)**			"per 10,000 cancer patients Available staff in Ministry of Health who	
Quality of mortality registration***	2007-2016	High	dedicates significant proportion of their	2019
			time to cancer	
of external beam radiotherapy	2010	40.2	# of radiation oncologist ^a	2019
photon,electron) ^a	2019	10.3	# of medical physicist ^a	2019
f of mammographs ^a	2020	43.9	# of surgeons ^a	2014
f of CT scanners ^a	2020	70.1	# of radiologist ^a	2019
of MRI scanners ^a	2020	52.6	# of nuclear medicine physician ^a	2019
of PET or PET/CT scanners ^a	2020	5.0	# of medical & pathology lab scientists ^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	45

# Public cancer centres per 10,000 cancer patients	2019	9.8
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 available
Palliative care availability: community/home-based care	2019	generally available
Availability of opioids* for pain management	2015-2017	20283

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

GLOBAL INITIATIVES

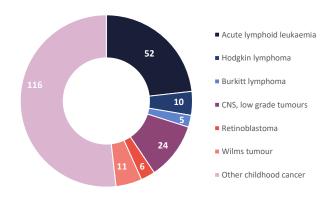
Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	0
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
Screening programme method	2019	PAP smear
Screening participation rates	2019	don't know
Early detection programme/guidelines	2019	no
Defined referral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

Global Initiative for Childhood Cancer Annual cancer cases (0-14 years old)

Annual cancer cases (0-14 years old) 2020 224

Early detection programme/guidelines 2019 no

Defined referral system 2019 no



■ Mortality

AZERBAIJAN

BURDEN OF CANCER



10,047,719

Total # cancer cases (2018)
11,606

Total # cancer deaths (2018)

8,133

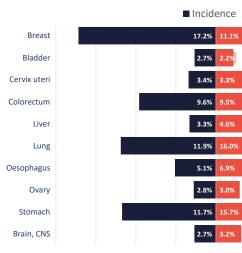
Premature deaths from NCDs (2016)

22,373

Cancer as % of NCD premature deaths (2016)

31.1%

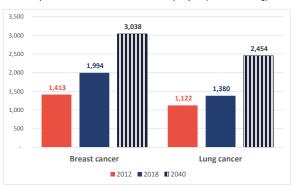
Most common cancer cases (2018)



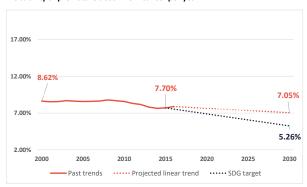


TRENDS

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

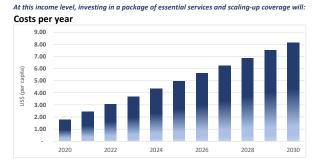


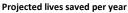
Probability of premature death from cancer per year

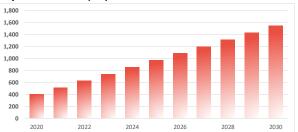


INVESTMENT CASE (2019)

*Upper middle income







Other childhood cancer

AZERBAIJAN

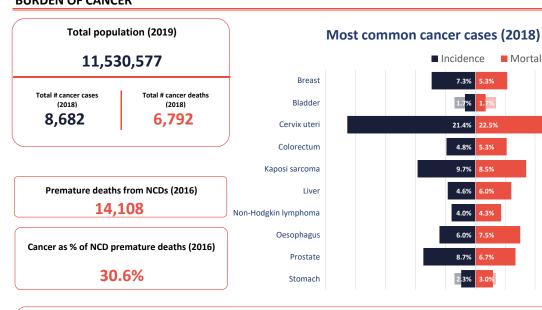
per 10,000 cancer patients Availability of population-based cancer	2010	Decision anti-it.	WORKFORCE		
egistry (PBCR)**	2019	Registration activity	^a per 10,000 cancer patients		
uality of mortality registration***	2007-2016	Low	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	ye
of external beam radiotherapy	2010	0.6	# of radiation oncologist ^a	2019	n/
hoton,electron) ^a	2019	8.6	# of medical physicist ^a	2019	n/
of mammographs ^a	2020	21.5	# of surgeons ^a	n/a	n/
of CT scanners ^a	2020	75.0	# of radiologist ^a	2019	n/
of MRI scanners ^a	2020	32.7	# of nuclear medicine physician ^a	2019	2.
of PET or PET/CT scanners ^a	2020	0.9	# of medical & pathology lab scientists ^a	n/a	n/
ORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	1.7
CCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s
MPOWER measures fully implemented and chieved	2018	1	Pathology services	2019	generally availabl
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally no availabl
alliative care included in their operational, itegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally no availabl
of treatment services (surgery, adiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	1
reast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per mil	iion inhabitants	per day
reast cancer screening program: Starting ge, target population	2019	n/a			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
PV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	35
ervical cancer screening	2019	no	Early detection programme/guidelines	2019	n
creening programme type	2019	n/a	Defined referral system	2019	ye
creening programme method	2019	n/a			
creening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	no			
	2040		71	■ Acute	lymphoid leukaemia
efined referral system	2019	yes		■ Hodgk	in lymphoma
			198	■ Burkit	lymphoma
			10	CNS, lo	ow grade tumours
			18	■ Retino	blastoma
			19 18	■ Wilms	tumour
			13		

^{**}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

■ Mortality

BURUNDI

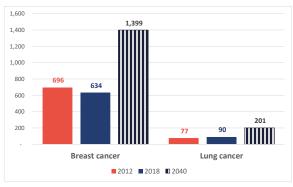
BURDEN OF CANCER



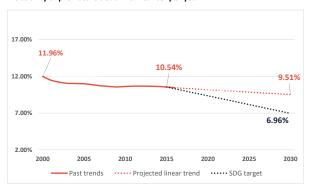


TRENDS

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

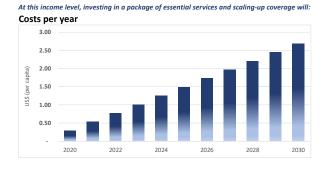


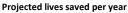
Probability of premature death from cancer per year

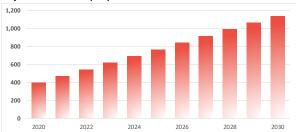


INVESTMENT CASE (2019)









Other childhood cancer

BURUNDI

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г	7 E	AL	ΙП		13	IEI	ν.	LA	РΑ	u		

^o per 10,000 cancer patients Availability of population-based cancer			WORKFORCE		
registry (PBCR)**	2019	No information	^a per 10,000 cancer patients		
Quality of mortality registration***	2007-2016	No coverage	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	ye
of external beam radiotherapy			# of radiation oncologist ^a	2019	0.0
photon,electron) ^a	2019	0.0	# of medical physicist ^a	2019	n/
# of mammographs ^a	2020	2.3	# of surgeons ^a	n/a	n/
# of CT scanners ^a	2020	4.6	# of radiologist ^a	2019	6.
of MRI scanners ^a	2020	0.0	# of nuclear medicine physician ^a	2019	0.
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2010	18.
FORMULATING RESPONSE					
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	-
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally no availabl
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally no availabl
Palliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally no availabl
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	
Breast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per i	miliion inhabitants per	day
Breast cancer screening program: Starting age, target population	2019	n/a			
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	72
Cervical cancer screening	2019	no	Early detection programme/guidelines	2019	n
Screening programme type	2019	n/a	Defined referral system	2019	n
Screening programme method	2019	n/a			
Screening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	no			
- 6 . 1			92	■ Acute lyn	nphoid leukaemia
Defined referral system	2019	no	30	■ Hodgkin	lymphoma
			40	■ Burkitt ly	mphoma
			21 28	■ CNS, low	grade tumours
			462 50	■ Retinobla	astoma
				■ Wilms tu	mour

^{**}The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry
***The mortality estimates for this country have a high degree of uncertainty because they are not based on any national NCD mortality data

BELGIUM

BURDEN OF CANCER

Total population (2019)

11,539,326

Total # cancer cases (2018) 79,931

Total # cancer deaths (2018) 29,617

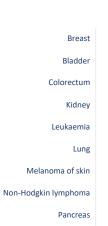
Premature deaths from NCDs (2016)

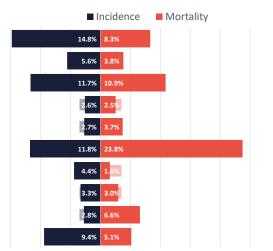
20,754

Cancer as % of NCD premature deaths (2016)

50.6%

Most common cancer cases (2018)



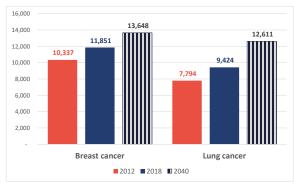


	30.8%	7.7%	4.3%	5.4%	85.3%	9.2%
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk (2017) ^a
iractions)	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			

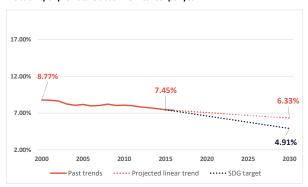
Prostate

TRENDS

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



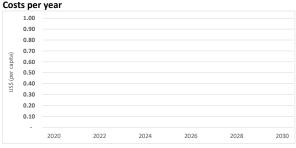
Probability of premature death from cancer per year

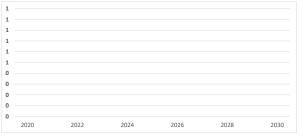


INVESTMENT CASE (2019)

*High income

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





BELGIUM

HEALTH SYSTEM CAPACITY

per 10,000 cancer patients					
Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR	WORKFORCE		
			^o per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	High	dedicates significant proportion of their time to cancer	2019	yes
# of external beam radiotherapy	2010	44.4	# of radiation oncologist ^a	2019	19.8
(photon,electron) ^a	,electron) ^a 2019	11.4	# of medical physicist ^a	2019	26.9
# of mammographs ^a	2020	25.0	# of surgeons ^a	2012	697.0
# of CT scanners ^a	2020	35.2	# of radiologist ^a	2019	185.8
# of MRI scanners ^a	2020	17.5	# of nuclear medicine physician ^a	2019	37.5
# of PET or PET/CT scanners ^a	2020	3.1	# of medical & pathology lab scientists ^a	n/a	n/a

FORMULATING RESPONSE

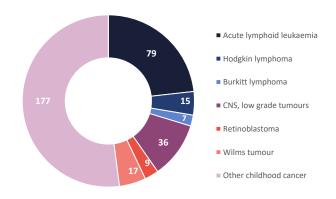
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	7.4
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
MPOWER measures fully implemented and achieved	2018	2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

GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	66.8
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	>50% and <70%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	no

Global Initiative for Childhood Cancer

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





BURDEN OF CANCER

Total population (2019)

11,801,151

Total # cancer cases (2018) **8,036**

Total # cancer deaths (2018)
5,667

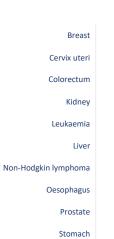
Premature deaths from NCDs (2016)

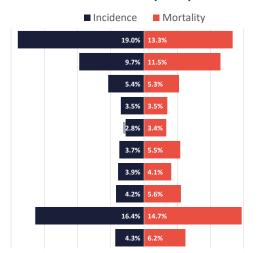
14,407

Cancer as % of NCD premature deaths (2016)

17.5%

Most common cancer cases (2018)

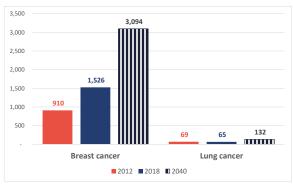




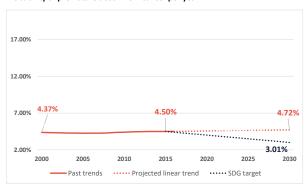


TRENDS

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

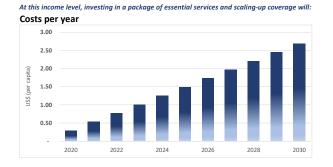


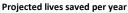
Probability of premature death from cancer per year

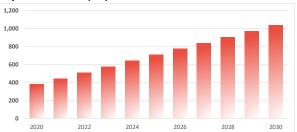


INVESTMENT CASE (2019)

*Low income







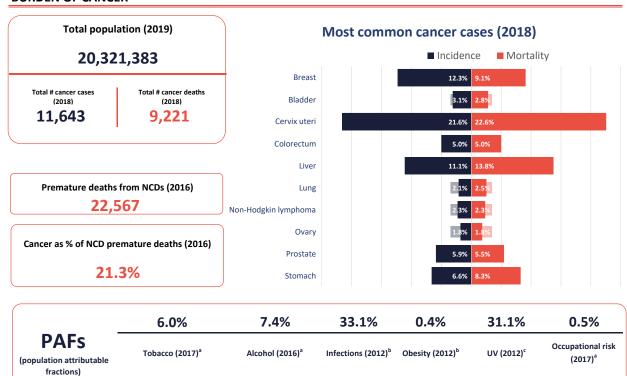
BENIN

vailability of population-based cancer	2010	DD CD	WORKFORCE		
egistry (PBCR)**	2019	PBCR	oper 10,000 cancer patients		
uality of mortality registration***	2007-2016	No coverage	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	ує
of external beam radiotherapy	2019	0.0	# of radiation oncologist ^a	2019	n/
hoton, electron) a	2013	0.0	# of medical physicist ^a	2019	n/
of mammographs ^a	2020	8.7	# of surgeons ^a	2014	100.
of CT scanners ^a	2020	7.5	# of radiologist ^a	2019	n/
of MRI scanners ^a	2020	1.2	# of nuclear medicine physician ^a	2019	1.
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2016	n/
ORMULATING RESPONSE					
stegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	1.2
CCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(
IPOWER measures fully implemented and chieved	2018	2	Pathology services	2019	generally no availab
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally no availabl
alliative care included in their operational, tegrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally no availab
of treatment services (surgery, adiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	1
reast cancer screening program	2019	no	***************************************		a day.
			*Defined daily doses for statistical purposes (S-DDD) per r	miliion inhabitants pei	r aay
reast cancer screening program: Starting ge, target population	2019	n/a	י טפן inea daily doses for statistical purposes (ב-טטט) per ו	miliion inhabitants pei	raay
reast cancer screening program: Starting	2019	n/a	"Dejinea daily aoses jor statistical purposes (s-UUU) per i	million inhabitants pei	r aay
reast cancer screening program: Starting ge, target population	2019	n/a	Global Initiative for Childhood Cancer	million inhabitants pei	aay
reast cancer screening program: Starting ge, target population	2019	n/a		alliion inhabitants pei	
reast cancer screening program: Starting ge, target population GLOBAL INITIATIVES limination of Cervical Cancer			Global Initiative for Childhood Cancer		67 n
reast cancer screening program: Starting ge, target population GLOBAL INITIATIVES Ilimination of Cervical Cancer PV vaccination programme coverage	2018	n/a	Global Initiative for Childhood Cancer Annual cancer cases (0-14 years old)	2020	67
reast cancer screening program: Starting ge, target population SLOBAL INITIATIVES Ilimination of Cervical Cancer PV vaccination programme coverage ervical cancer screening	2018 2019	n/a no	Global Initiative for Childhood Cancer Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system	2020 2019	67 n
reast cancer screening program: Starting ge, target population SLOBAL INITIATIVES Ilimination of Cervical Cancer PV vaccination programme coverage ervical cancer screening creening programme type	2018 2019 2019	n/a no n/a n/a	Global Initiative for Childhood Cancer Annual cancer cases (0-14 years old) Early detection programme/guidelines	2020 2019	67 n
Creening program: Starting ge, target population SLOBAL INITIATIVES Ilimination of Cervical Cancer PV vaccination programme coverage ervical cancer screening creening programme type creening programme method	2018 2019 2019 2019	n/a no n/a	Global Initiative for Childhood Cancer Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system Annual cancer cases (0-14 years old)	2020 2019 2019	67 n n
reast cancer screening program: Starting ge, target population SLOBAL INITIATIVES Ilimination of Cervical Cancer PV vaccination programme coverage ervical cancer screening creening programme type creening programme method creening participation rates	2018 2019 2019 2019 2019	n/a no n/a n/a n/a	Global Initiative for Childhood Cancer Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system	2020 2019 2019	67 n n
Creening programme coverage creening programme type creening programme method creening programme/guidelines	2018 2019 2019 2019 2019 2019	n/a no n/a n/a n/a yes	Global Initiative for Childhood Cancer Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system Annual cancer cases (0-14 years old)	2020 2019 2019	67 n n nphoid leukaemia lymphoma
Creening programme coverage creening programme type creening programme method creening programme/guidelines	2018 2019 2019 2019 2019 2019	n/a no n/a n/a n/a yes	Global Initiative for Childhood Cancer Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system Annual cancer cases (0-14 years old)	2020 2019 2019 Acute lyr Hodgkin Burkitt ly	67 n n nphoid leukaemia lymphoma
Creening programme coverage creening programme type creening programme method creening programme/guidelines	2018 2019 2019 2019 2019 2019	n/a no n/a n/a n/a yes	Global Initiative for Childhood Cancer Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system Annual cancer cases (0-14 years old)	2020 2019 2019 Acute lyr Hodgkin Burkitt ly	67 n n mphoid leukaemia lymphoma rmphoma grade tumours
Creening programme coverage creening programme type creening programme method creening programme/guidelines	2018 2019 2019 2019 2019 2019	n/a no n/a n/a n/a yes	Global Initiative for Childhood Cancer Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system Annual cancer cases (0-14 years old)	2020 2019 2019 • Acute lyr • Hodgkin • Burkitt ly • CNS, low	6: r r mphoid leukaemia lymphoma rmphoma grade tumours estoma

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

BURKINA FASO

BURDEN OF CANCER

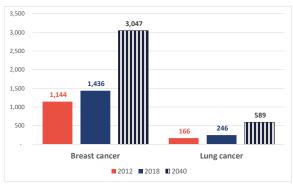


^b PAF, cancer cases

TRENDS

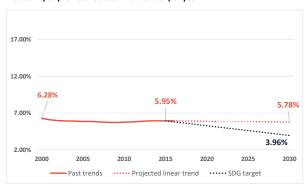
Estimated past and future trends in total cases per year (breast and lung)

^a PAF, cancer deaths



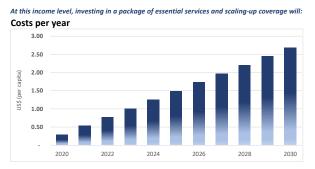
Probability of premature death from cancer per year

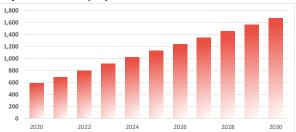
^c PAF, melanoma cases



INVESTMENT CASE (2019)







BURKINA FASO

a per 10,000 cancer patients						
Availability of population-based cancer	2019	PBCR	WORKFORCE			
registry (PBCR)**			^a per 10,000 cancer patients Available staff in Ministry of Health who			
Quality of mortality registration***	2007-2016	No coverage	dedicates significant proportion of their time to cancer	2019	ye	
# of external beam radiotherapy	2019	0.0	# of radiation oncologist ^a	2019	n/a	
(photon,electron) ^a	2019	0.0	# of medical physicist ^a	2019	1.7	
# of mammographs ^a	2020	22.3	# of surgeons ^a	2014	30.9	
# of CT scanners ^a	2020	16.3	# of radiologist ^a	2019	68.7	
# of MRI scanners ^a	2020	0.9	# of nuclear medicine physician ^a	2019	3.4	
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2012	n/a	
FORMULATING RESPONSE						
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	3.4	

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	2
Breast cancer screening program	2019	yes
Breast cancer screening program: Starting age, target population	2019	25

# Public cancer centres per 10,000 cancer patients	2019	3.4
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	1

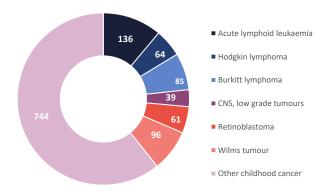
^{*}Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

GLOBAL INITIATIVES

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

Global Initiative for Childhood Cancer

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



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

BANGLADESH

BURDEN OF CANCER

Total population (2019)

163,046,173

Total # cancer cases (2018)
150,781

Total # cancer deaths (2018)
108,137

Premature deaths from NCDs (2016)

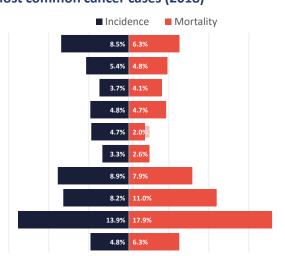
258,368

Cancer as % of NCD premature deaths (2016)

25.9%

Most common cancer cases (2018)

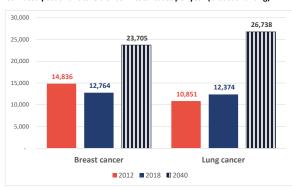




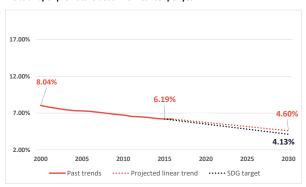


TRENDS

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

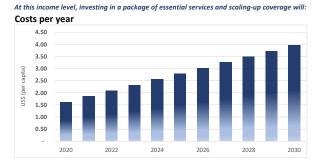


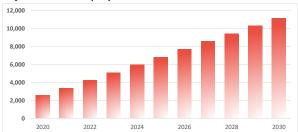
Probability of premature death from cancer per year



INVESTMENT CASE (2019)

*Lower middle income





BANGLADESH

^a per 10,000 cancer patients					
Availability of population-based cancer	2019	Registration activity	WORKFORCE		
registry (PBCR)**		,	^o per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	No coverage	dedicates significant proportion of their time to cancer	2019	yes
# of external beam radiotherapy	2019	24	# of radiation oncologist ^a	2019	1.7
(photon,electron) ^a	2019	2.1	# of medical physicist ^a	2019	21.9
# of mammographs ^a	2020	9.9	# of surgeons ^a	2012	173.4
# of CT scanners ^a	2020	12.1	# of radiologist ^a	2019	33.2
# of MRI scanners ^a	2020	4.6	# of nuclear medicine physician ^a	2019	6.6
# of PET or PET/CT scanners ^a	2020	0.3	# of medical & pathology lab scientists ^a	2012	n/a
FORMULATING RESPONSE					
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	0.7
NCCP (including cancer types)	2010	operational	Early detection programme/ guidelines for	2010	2 concor(c)

Integrated NCD plan	2019	operational
NCCP (including cancer types)	2019	operational
MPOWER measures fully implemented and achieved	2018	1
Cancer management guidelines	2019	yes
Palliative care included in their operational, integrated NCD plan	2019	no
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	2
Breast cancer screening program	2019	yes
Breast cancer screening program: Starting age, target population	2019	30

# Public cancer centres per 10,000 cancer patients	2019	0.7
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
Pathology services	2019	generally not available
Bone marrow transplantation capacity	2019	generally not available
Palliative care availability: community/home-based care	2019	generally not available
Availability of opioids* for pain management	2015-2017	9

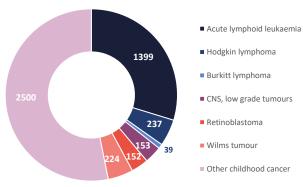
^{*}Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

GLOBAL INITIATIVES

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

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	4704
Early detection programme/guidelines	2019	yes
Defined referral system	2019	VAS



^{**}The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry
***The mortality estimates for this country have a high degree of uncertainty because they are not based on any national NCD mortality data

BULGARIA

BURDEN OF CANCER



7,000,117

Total # cancer cases (2018)
35,378

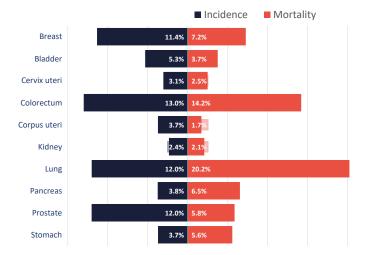
Total # cancer deaths (2018)
19,139

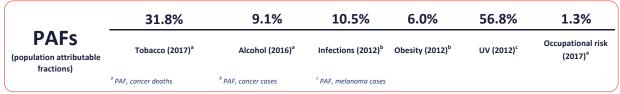
Premature deaths from NCDs (2016) 30,007

Cancer as % of NCD premature deaths (2016)

32.3%

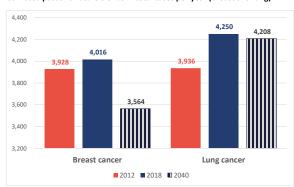
Most common cancer cases (2018)



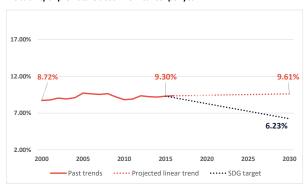


TRENDS

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

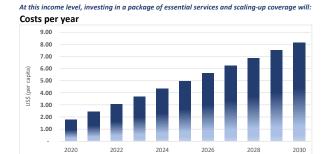


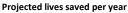
Probability of premature death from cancer per year

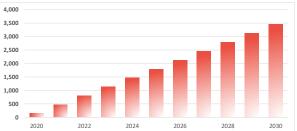


INVESTMENT CASE (2019)

*Upper middle income







yes
13.3
23.7
1656.1
141.3
14.7
n/a

BULGARIA

HEALTH SYSTEM CAPACITY

per 10,000 cancer patients					
Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
registry (PBCR)**			^o per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	Medium	dedicates significant proportion of their	2019	
			time to cancer		
# of external beam radiotherapy	2019	9.0	# of radiation oncologist ^a	2019	
(photon,electron) ^a	n,electron) ^a	9.0	# of medical physicist ^a	2019	
# of mammographs ^a	2020	61.3	# of surgeons ^a	2013	1
# of CT scanners ^a	2020	70.4	# of radiologist ^a	2019	
# of MRI scanners ^a	2020	15.8	# of nuclear medicine physician ^a	2019	
# of PET or PET/CT scanners ^a	2020	1.7	# of medical & pathology lab scientists ^a	n/a	

FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public car patients
NCCP (including cancer types)	2019	operational	Early detec 4 cancers (b
MPOWER measures fully implemented and achieved	2018	3	Pathology s
Cancer management guidelines	2019	yes	Bone marro
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative community
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability manageme
Breast cancer screening program	2019	yes	*Defined daily
Breast cancer screening program: Starting age, target population	2019	40	

# Public cancer centres per 10,000 cancer patients	2019	9.9
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
Pathology services	2019	generally available
Bone marrow transplantation capacity	2019	generally available
Palliative care availability: community/home-based care	2019	generally not available
Availability of opioids* for pain management	2015-2017	607

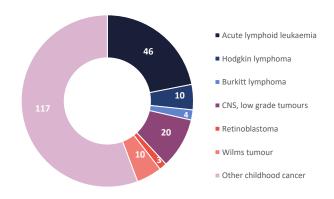
Defined daily doses for statistical purposes (S-DDD) per miliion inhabitants per day

GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	5.3
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	10%-50%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	210
Early detection programme/guidelines	2019	don't know
Defined referral system	2019	ves



BAHRAIN

BURDEN OF CANCER

Total population (2019)

1,641,164

Total # cancer cases (2018)
1,048

Total # cancer deaths (2018)

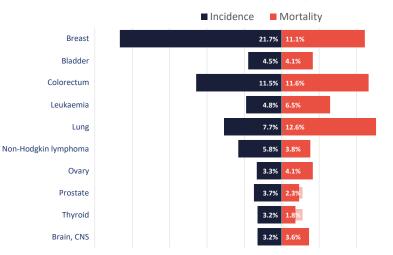
Premature deaths from NCDs (2016)

1,081

Cancer as % of NCD premature deaths (2016)

27.7%

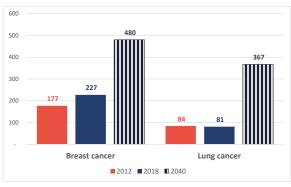
Most common cancer cases (2018)



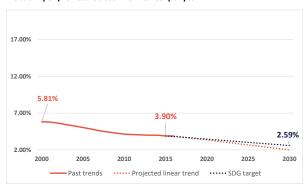


TRENDS

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



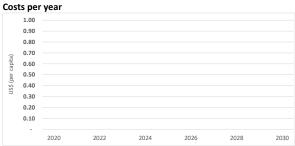
Probability of premature death from cancer per year

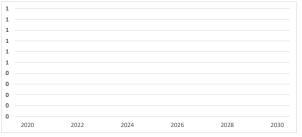


INVESTMENT CASE (2019)

*High income

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





Other childhood cancer

BAHRAIN

^o per 10,000 cancer patients Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
registry (PBCR)**	2019	rigii quality PBCK	° per 10,000 cancer patients		
Quality of mortality registration***	2007-2016	Low	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	ye
f of external beam radiotherapy	2010	19.1	# of radiation oncologist ^a	2019	n/a
photon,electron) ^a	2019	19.1	# of medical physicist ^a	2019	286.
f of mammographs ^a	2020	9.5	# of surgeons ^a	2012	1917.
of CT scanners ^a	2020	162.2	# of radiologist ^a	2019	n/a
of MRI scanners ^a	2020	133.6	# of nuclear medicine physician ^a	2019	47.
# of PET or PET/CT scanners ^a	2020	9.5	# of medical & pathology lab scientists ^a	2015	n/a
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	19.1
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally availabl
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally availabl
Palliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	29
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per m	niliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	40			
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	4
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	ye
Screening programme type	2019	opportunistic	Defined referral system	2019	ye
Screening programme method	2019	PAP smear			
Screening participation rates	2019	<10%	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	yes			
Defined aufamal and a	2015		9	■ Acute	lymphoid leukaemia
Defined referral system	2019	yes		■ Hodgk	in lymphoma
			26 3	■ Burkit	t lymphoma
			1	CNS, lo	ow grade tumours
			2	■ Retino	blastoma
			2	■ Wilms	tumour

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

BAHAMAS

BURDEN OF CANCER

Total population (2019)

389,486

Total # cancer cases (2018)

933

Total # cancer deaths (2018)

482

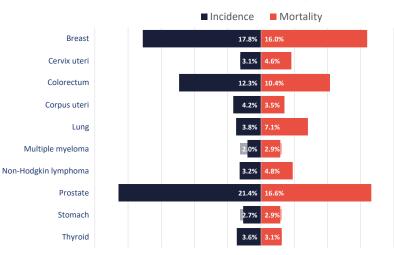
Premature deaths from NCDs (2016)

- - - -

Cancer as % of NCD premature deaths (2016)

36.2%

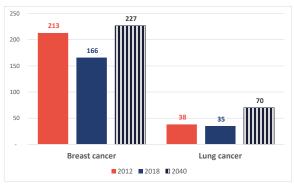
Most common cancer cases (2018)



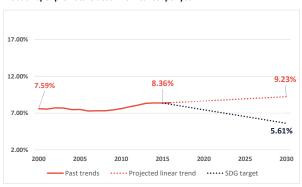


TRENDS

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



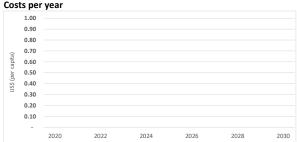
Probability of premature death from cancer per year

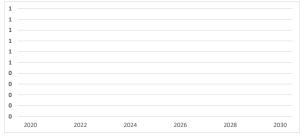


INVESTMENT CASE (2019)

*High income

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





BAHAMAS

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per 10,000 cancer patients					
Availability of population-based cancer	2019	PBCR	WORKFORCE		
registry (PBCR)**			^o per 10,000 cancer patients Available staff in Ministry of Health who		
uality of mortality registration***	2007-2016	High	dedicates significant proportion of their time to cancer	2019	no
of external beam radiotherapy	2019	10.7	# of radiation oncologist ^a	2019	16.1
photon,electron) ^a			# of medical physicist ^a	2019	n/a
of mammographs ^a	2020	64.3	# of surgeons ^a	n/a	n/a
of CT scanners ^a	2020	53.6	# of radiologist ^a	2019	64.3
of MRI scanners ^a	2020	21.4	# of nuclear medicine physician ^a	2019	10.7
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2011	n/a

FORMULATING RESPONSE

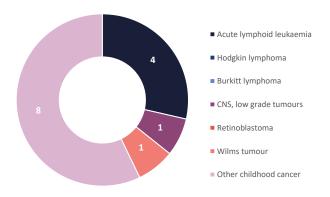
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	21.4
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology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

GLOBAL INITIATIVES

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

Global Initiative for Childhood Cancer

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



BOSNIA AND HERZEGOVINA

9,012

BURDEN OF CANCER

14,385

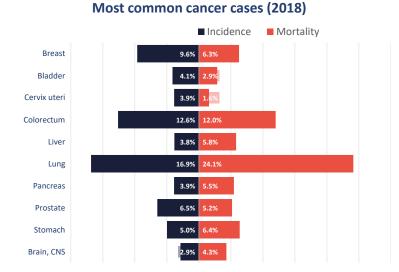


Premature deaths from NCDs (2016)

10,022

Cancer as % of NCD premature deaths (2016)

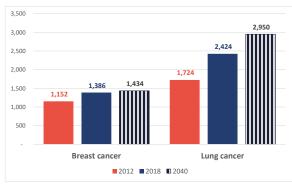
35.6%



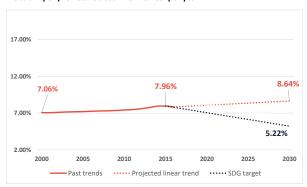


TRENDS

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

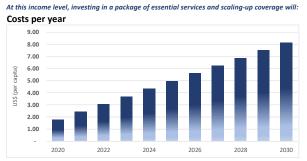


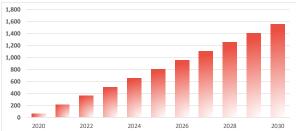
Probability of premature death from cancer per year



INVESTMENT CASE (2019)







Other childhood cancer

BOSNIA AND HERZEGOVINA

Availability of population-based cancer	2019	Registration activity	WORKFORCE		
egistry (PBCR)** Quality of mortality registration***	2007-2016	Low	^o per 10,000 cancer patients Available staff in Ministry of Health who dedicates significant proportion of their	2019	ye
t of outcomed because and otherwise.			time to cancer # of radiation oncologist ^a	2019	n/a
of external beam radiotherapy photon,electron) ^a	2019	7.0	# of medical physicist ^a	2019	11.
f of mammographs ^a	2020	61.2	# of surgeons ^a	2013	191.
of CT scanners ^a	2020	43.8	# of radiologist ^a	2019	131.4
of MRI scanners ^a	2020	20.2	# of nuclear medicine physician ^a	2019	19.
t of PET or PET/CT scanners ^a	2020	1.4	# of medical & pathology lab scientists ^a	n/a	n/
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	16.0
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally availabl
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally availabl
Palliative care included in their operational, ntegrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally no availabl
f of treatment services (surgery, adiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	60
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per i	miliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	50			
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	7
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	ye
Screening programme type	2019	organised	Defined referral system	2019	n
Screening programme method	2019	PAP smear			
Screening participation rates	2019	don't know	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	yes			
, , , , , ,		•		■ Acute	lymphoid leukaemia
Defined referral system	2019	yes	17	■ Hodgk	in lymphoma
				■ Burkiti	t lymphoma
			4		
			44	■ CNS, lo	ow grade tumours
					ow grade tumours

^{**}The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry
***The mortality estimates for this country have a high degree of uncertainty because they are not based on any national NCD mortality data

BELARUS

BURDEN OF CANCER



9,452,409

Total # cancer cases (2018) 42,287

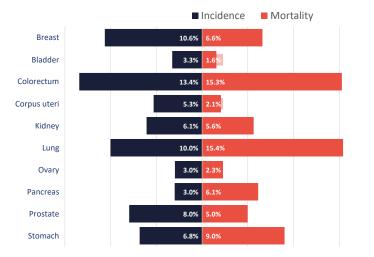
Total # cancer deaths (2018)
19,095

Premature deaths from NCDs (2016) 37,017

Cancer as % of NCD premature deaths (2016)

29.2%

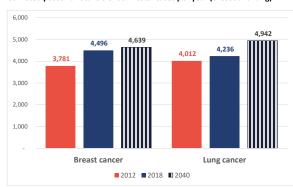
Most common cancer cases (2018)



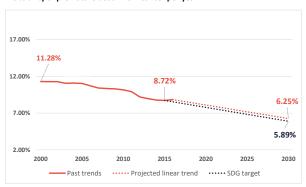


TRENDS

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

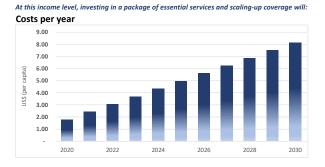


Probability of premature death from cancer per year

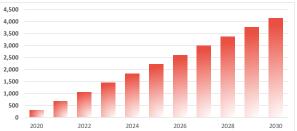


INVESTMENT CASE (2019)

*Upper middle income







BELARUS

HEALTH SYSTEM CAPACITY

^a per 10,000 cancer patients					
Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR	WORKFORCE		
			^o per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	Medium	dedicates significant proportion of their time to cancer	2019	yes
# of external beam radiotherapy	2010		# of radiation oncologist ^a	2019	27.9
(photon,electron) ^a	2019	7.6	# of medical physicist ^a	2019	n/a
# of mammographs ^a	2020	12.1	# of surgeons ^a	2013	1520.1
# of CT scanners ^a	2020	19.6	# of radiologist ^a	2019	161.3
# of MRI scanners ^a	2020	10.6	# of nuclear medicine physician ^a	2019	7.8
# of PET or PET/CT scanners ^a	2020	0.7	# of medical & pathology lab scientists ^a	n/a	n/a

FORMULATING RESPONSE

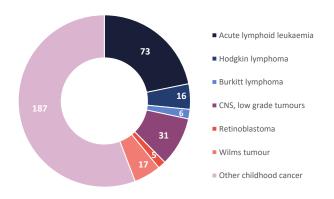
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	2.6
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s)
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	359
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per	miliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	50			

GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	visual inspection
Screening participation rates	2019	>50% and <70%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	335
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes



BELIZE

BURDEN OF CANCER



390,351

Total # cancer cases (2018)
358

Total # cancer deaths (2018)
201

Premature deaths from NCDs (2016) 595

Cancer as % of NCD premature deaths (2016)

24.4%

Most common cancer cases (2018)



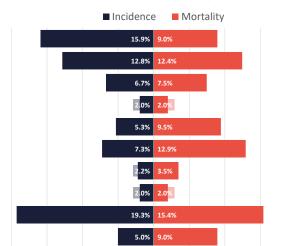
Leukaemia

Liver Lung

Melanoma of skin

Pancreas Prostate

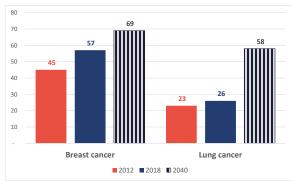
Stomach



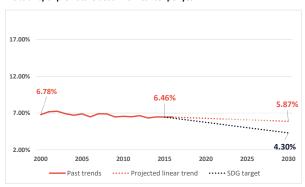
14.1% 5.3% 19.5% 5.7% n/a 2.6% **PAFs** Occupational risk Tobacco (2017)^a Alcohol (2016)^a Infections (2012)^b Obesity (2012)^b UV (2012)c (2017)^a (population attributable fractions) ^a PAF, cancer deaths ^b PAF, cancer cases ^c PAF, melanoma cases

TRENDS

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

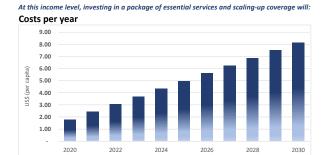


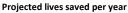
Probability of premature death from cancer per year

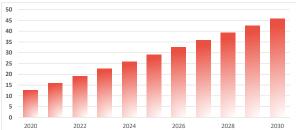


INVESTMENT CASE (2019)

*Upper middle income





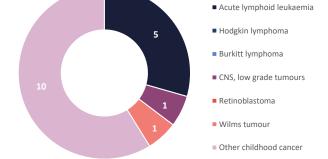




Early detection programme/guidelines

Defined referral system

per 10,000 cancer patients Availability of population-based cancer	2019	Registration activity	WORKFORCE		
registry (PBCR)** Quality of mortality registration***	2007-2016	Medium	[®] per 10,000 cancer patients Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	n/a
# of external beam radiotherapy	2019	0.0	# of radiation oncologist ^a	2019	0.0
photon,electron) ^a	2019	0.0	# of medical physicist ^a	2019	0.
# of mammographs ^a	2020	111.7	# of surgeons ^a	2014	642.
# of CT scanners ^a	2020	139.7	# of radiologist ^a	2019	335.
of MRI scanners ^a	2020	55.9	# of nuclear medicine physician ^a	2019	0.
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	n/a	n/a
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	-
NCCP (including cancer types)	2019	under development	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally no availabl
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally no availabl
Palliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally no availabl
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	5
Breast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per	miliion inhabitants nei	r dav
Breast cancer screening program: Starting age, target population	2019	n/a		,	,
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	63.5	Annual cancer cases (0-14 years old)	2020	1
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	n
Screening programme type	2019	opportunistic	Defined referral system	2019	n
Screening programme method	2019	visual inspection			
			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

2019

BOLIVIA

BURDEN OF CANCER

Total population (2019)

11,513,102

Total # cancer cases (2018)
14,915

Total # cancer deaths (2018)

9,527

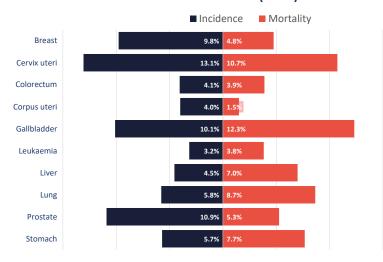
Premature deaths from NCDs (2016)

18,697

Cancer as % of NCD premature deaths (2016)

20.8%

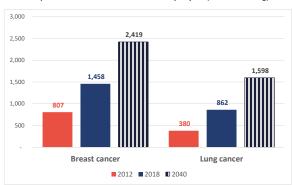
Most common cancer cases (2018)



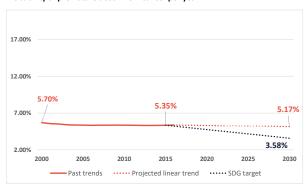


TRENDS

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

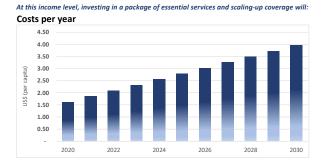


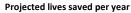
Probability of premature death from cancer per year

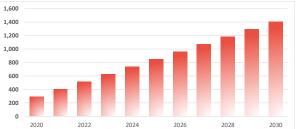


INVESTMENT CASE (2019)

*Lower middle income







Other childhood cancer

BOLIVIA

Availability of population-based cancer	2019	PBCR	WORKFORCE		
egistry (PBCR)**	2013	Tock	° per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	No coverage	dedicates significant proportion of their time to cancer	2019	yes
of external beam radiotherapy	2019	5.4	# of radiation oncologist ^a	2019	n/a
ohoton, electron) ^a	2013	3.4	# of medical physicist ^a	2019	13.4
of mammographs ^a	2020	29.5	# of surgeons ^a	2012	1211.5
of CT scanners ^a	2020	40.2	# of radiologist ^a	2019	111.3
of MRI scanners ^a	2020	13.4	# of nuclear medicine physician ^a	2019	8.7
of PET or PET/CT scanners ^a	2020	0.7	# of medical & pathology lab scientists ^a	2011	n/a
ORMULATING RESPONSE					
ntegrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients	2019	6.0
ICCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s
/IPOWER measures fully implemented and chieved	2018	1	Pathology services	2019	generally available
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	don't knov
alliative care included in their operational, itegrated NCD plan	2019	n/a	Palliative care availability: community/home-based care	2019	generally no available
of treatment services (surgery, adiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	49
reast cancer screening program	2019	don't know	*Defined daily doses for statistical purposes (S-DDD) per i	miliion inhabitants	per day
reast cancer screening program: Starting ge, target population	2019	n/a			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
PV vaccination programme coverage	2018	60.9	Annual cancer cases (0-14 years old)	2020	475
ervical cancer screening	2019	don't know	Early detection programme/guidelines	2019	don't know
creening programme type	2019	n/a	Defined referral system	2019	don't know
creening programme method	2019	n/a			
creening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	don't know			
refined referred evelors	2010	doub line		■ Acute	lymphoid leukaemia
efined referral system	2019	don't know	125	■ Hodgk	in lymphoma
				■ Burkiti	t lymphoma
			255	■ CNS, lo	ow grade tumours
			3	■ Retino	blastoma
			18 33	Wilms	tumour

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



BURDEN OF CANCER

Total population (2019)

211,049,519

Total # cancer cases (2018)
559,371

Total # cancer deaths (2018)
243,588

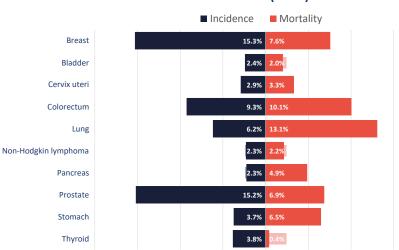
Premature deaths from NCDs (2016)

416,222

Cancer as % of NCD premature deaths (2016)

30.3%

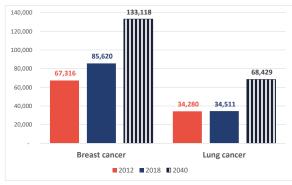
Most common cancer cases (2018)



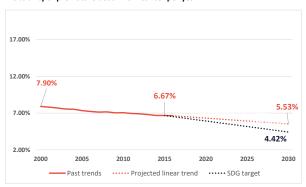
	21.2%	8.7%	11.1%	3.4%	55.7%	2.4%
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk (2017) ^a
	^a PAF, cancer deaths	^b PAF, cancer cases	° PAF, melanoma cases			

TRENDS

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



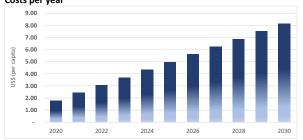
Probability of premature death from cancer per year

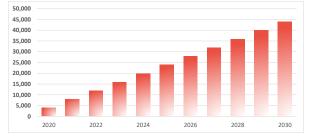


INVESTMENT CASE (2019)

*Upper middle income





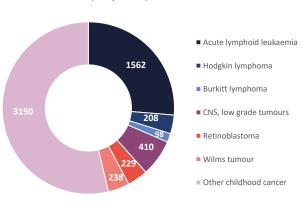




Defined referral system

2019

Availability of population-based cancer			WORKFORCE		
egistry (PBCR)**	2019	High quality PBCR	° per 10,000 cancer patients		
Quality of mortality registration***	2007-2016	High	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	ye
of external beam radiotherapy			# of radiation oncologist ^a	2019	13.:
photon,electron) ^a	2019	6.4	# of medical physicist ^a	2019	13.:
of mammographs ^a	2020	99.9	# of surgeons ^a	2013	1256.
of CT scanners ^a	2020	83.3	# of radiologist ^a	2019	230.
of MRI scanners ^a	2020	57.7	# of nuclear medicine physician ^a	2019	17.
of PET or PET/CT scanners ^a	2020	2.6	# of medical & pathology lab scientists ^a	2017	n/s
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	6.0
ACCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s
MPOWER measures fully implemented and inchieved	2018	5	Pathology services	2019	generally availabl
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally availabl
valliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally availabl
of treatment services (surgery, adiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	44
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per	miliion inhabitants	per day
Breast cancer screening program: Starting lige, target population	2019	50			
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	69.2	Annual cancer cases (0-14 years old)	2020	593
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	ye
creening programme type	2019	organised	Defined referral system	2019	ye
creening programme method	2019	PAP smear			
creening participation rates	2019	70% or more	Annual cancer cases (0-14 years old)		



BARBADOS

BURDEN OF CANCER

Total population (2019)

287,021

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

1,245

721

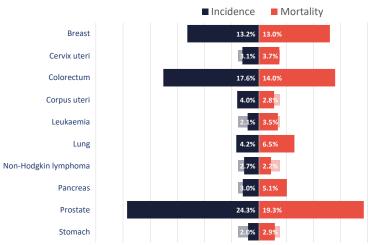
Premature deaths from NCDs (2016)

714

Cancer as % of NCD premature deaths (2016)

38.9%

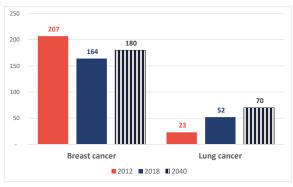
Most common cancer cases (2018)



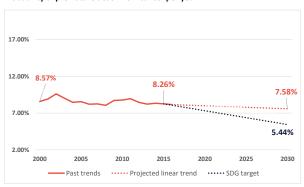


TRENDS

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



Probability of premature death from cancer per year

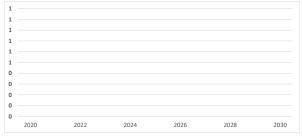


INVESTMENT CASE (2019)

*High income

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





1 cancer(s)

don't know generally not

available

495

5

generally available

BARBADOS

HEALTH SYSTEM CAPACITY

per 10,000 cancer patients					
Availability of population-based cancer 2019 PBCR		WORKFORCE			
registry (PBCR)**			^o per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	Medium	dedicates significant proportion of their time to cancer	2019	yes
of external beam radiotherapy	2040		# of radiation oncologist ^a	2019	8.0
photon,electron) ^a	2019	8.0	# of medical physicist ^a	2019	n/a
of mammographs ^a	2020	8.0	# of surgeons ^a	2014	144.0
of CT scanners ^a	2020	16.1	# of radiologist ^a	2019	32.:
f of MRI scanners ^a	2020	0.0	# of nuclear medicine physician ^a	2019	8.
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2005	n/a

FORMULATING RESPONSE

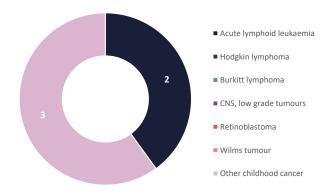
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019
NCCP (including cancer types)	2019	not in effect	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	015-2017
Breast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per milii	on inhabitants
Breast cancer screening program: Starting age, target population	2019	n/a		

iliion inhabitants per day

GLOBAL INITIATIVES

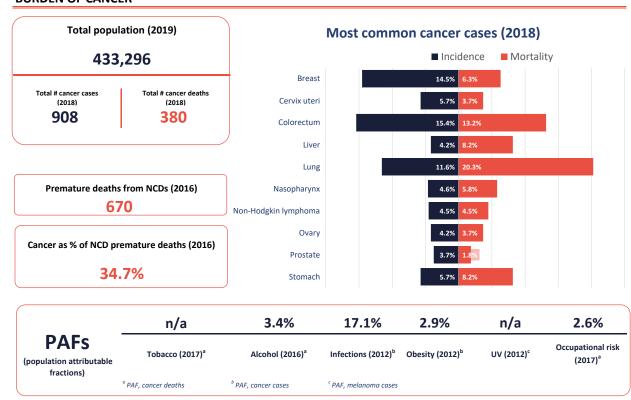
Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	24.8
Cervical cancer screening	2019	no
Screening programme type	2019	n/a
Screening programme method	2019	n/a
Screening participation rates	2019	n/a
Early detection programme/guidelines	2019	yes
Defined referral system	2019	no

Global Initiative for Childhood Cancer Annual cancer cases (0-14 years old) 2020 Early detection programme/guidelines 2019 Defined referral system 2019



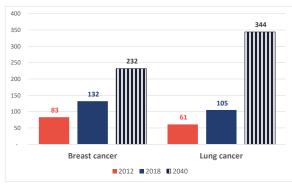
BRUNEI DARUSSALAM

BURDEN OF CANCER

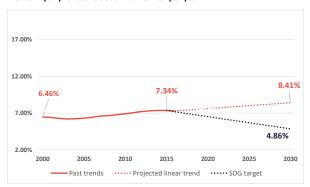


TRENDS

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



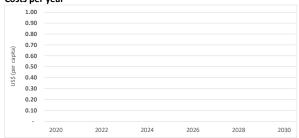
Probability of premature death from cancer per year



INVESTMENT CASE (2019)

*High income







BRUNEI DARUSSALAM

HFAITH	SYSTEM	CAPACITY

oer 10,000 cancer patients					
wailability of population-based cancer	2019	PBCR	WORKFORCE		
egistry (PBCR)**			^o per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	High	dedicates significant proportion of their time to cancer	2019	yes
of external beam radiotherapy	2010	22.0	# of radiation oncologist ^a	2019	n/a
photon,electron) ^a	2019	22.0	# of medical physicist ^a	2019	33.0
of mammographs ^a	2020	429.5	# of surgeons ^a	n/a	n/a
of CT scanners ^a	2020	33.0	# of radiologist ^a	2019	n/a
of MRI scanners ^a	2020	11.0	# of nuclear medicine physician ^a	2019	n/a
of PET or PET/CT scanners ^a	2020	11.0	# of medical & pathology lab scientists ^a	2015	1244.5

FORMULATING RESPONSE

2019	operational	# Publ patier
2019	n/a	Early o
2018	2	Patho
2019	no	Bone
2019	yes	Palliat comm
2019	3	Availa mana
2019	no	*Define
2019	n/a	
	2019 2018 2019 2019 2019 2019	2019 n/a 2018 2 2019 no 2019 yes 2019 3 2019 no

# Public cancer centres per 10,000 cancer patients	2019	11.0
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
Pathology services	2019	generally available
Bone marrow transplantation capacity	2019	generally not available
Palliative care availability: community/home-based care	2019	don't know
Availability of opioids* for pain management	2015-2017	467

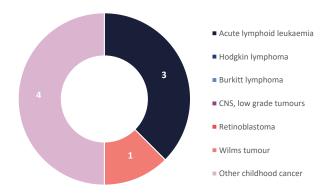
Defined daily doses for statistical purposes (S-DDD) per miliion inhabitants per day

GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	88.6
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	>50% and <70%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	8
Early detection programme/guidelines	2019	no
Defined referral system	2019	ves



BHUTAN

BURDEN OF CANCER



763,094

Total # cancer cases (2018)

585

Total # cancer deaths (2018)
490

Premature deaths from NCDs (2016)

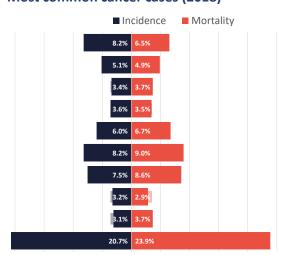
1,744

Cancer as % of NCD premature deaths (2016)

16.2%

Most common cancer cases (2018)

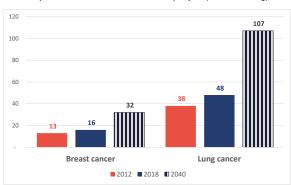




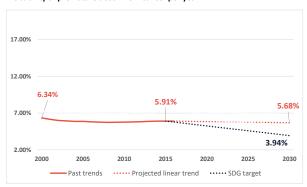


TRENDS

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

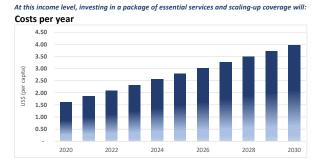


Probability of premature death from cancer per year

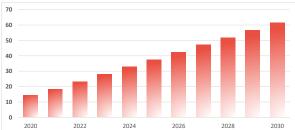


INVESTMENT CASE (2019)

*Lower middle income







BHUTAN

HEALTH SYSTEM CAPACITY

per 10,000 cancer patients						
Availability of population-based cancer 2019		PBCR	WORKFORCE	VORKFORCE		
registry (PBCR)**			^o per 10,000 cancer patients Available staff in Ministry of Health who			
Quality of mortality registration***	2007-2016	No coverage	dedicates significant proportion of their time to cancer	2019	no	
# of external beam radiotherapy	2040	47.4	# of radiation oncologist ^a	2019	n/a	
(photon,electron) ^a	2019	17.1	# of medical physicist ^a	2019	0.0	
# of mammographs ^a	2020	17.1	# of surgeons ^a	2014	102.6	
# of CT scanners ^a	2020	34.2	# of radiologist ^a	2019	51.3	
# of MRI scanners ^a	2020	17.1	# of nuclear medicine physician ^a	2019	0.0	
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists a	2017	1076.9	

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	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	17.1			
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 not available			
Palliative care availability: community/home-based care	2019	generally available			
Availability of opioids* for pain management	2015-2017	15			
*Defined drilly describer statistical purposes (S. DDD) per million inhabitants per day					

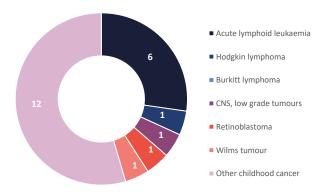
^{*}Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	89.6
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
Screening programme method	2019	PAP smear
Screening participation rates	2019	>50% and <70%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	22
Early detection programme/guidelines	2019	don't know
Defined referral system	2019	don't know



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

BOTSWANA

BURDEN OF CANCER



2,303,703

Total # cancer cases (2018)
1,953

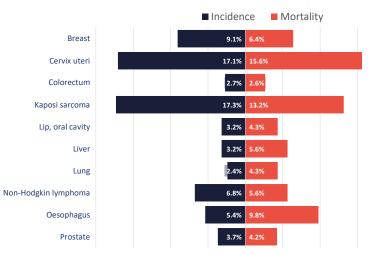
Total # cancer deaths (2018)
1,064

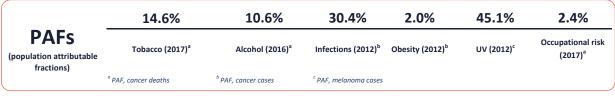
Premature deaths from NCDs (2016) 3,198

Cancer as % of NCD premature deaths (2016)

22.2%

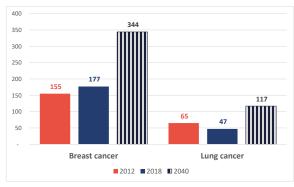
Most common cancer cases (2018)



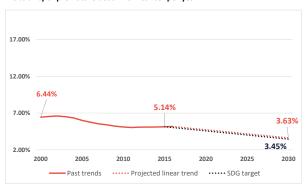


TRENDS

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

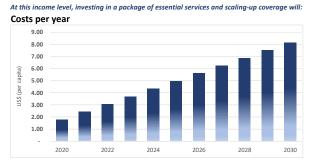


Probability of premature death from cancer per year

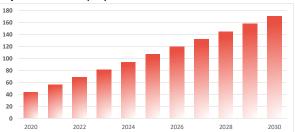


INVESTMENT CASE (2019)

*Upper middle income







Other childhood cancer

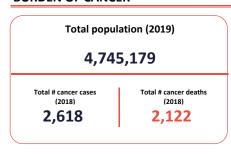
BOTSWANA

per 10,000 cancer patients Availability of population-based cancer	2019	PBCR	WORKFORCE		
registry (PBCR)**	2019	FBCR	^o per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	No coverage	dedicates significant proportion of their time to cancer	2019	yes
of external beam radiotherapy	2019	5.1	# of radiation oncologist ^a	2019	n/a
photon,electron) ^a			# of medical physicist ^a	2019	0.0
of mammographs ^a	2020	10.2	# of surgeons ^a	2014	204.8
of CT scanners ^a	2020	10.2	# of radiologist ^a	2019	n/a
f of MRI scanners ^a	2020	5.1	# of nuclear medicine physician ^a	2019	0.0
f of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2009	n/a
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	10.2
ICCP (including cancer types)	2019	under development	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	don't knov
alliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
of treatment services (surgery, adiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	67
Breast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per r	niliion inhabitants	per day
Breast cancer screening program: Starting lige, target population	2019	n/a			
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	82.2	Annual cancer cases (0-14 years old)	2020	7!
Cervical cancer screening	2019	no	Early detection programme/guidelines	2019	no
creening programme type	2019	n/a	Defined referral system	2019	no
creening programme method	2019	n/a			
creening participation rates	2019		Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	n/a yes			
arry detection programme/guidennes	2013	yes		■ Acute	lymphoid leukaemia
efined referral system	2019	yes	13	■ Hodgk	in lymphoma
			3	■ Burkiti	t lymphoma
			40		ow grade tumours
			3	,	blastoma
			4		
				Wilms	tumour

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

CENTRAL AFRICAN REPUBLIC

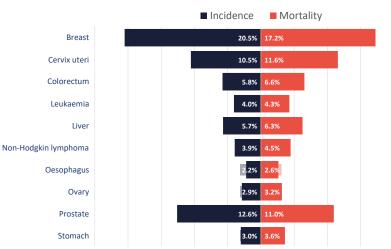
BURDEN OF CANCER



Premature deaths from NCDs (2016) 6,649

Cancer as % of NCD premature deaths (2016)

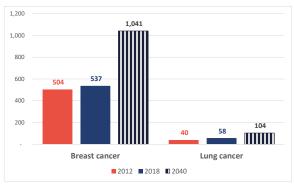
Most common cancer cases (2018)



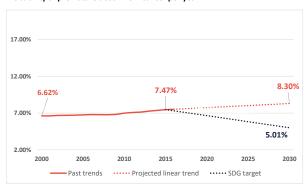


TRENDS

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

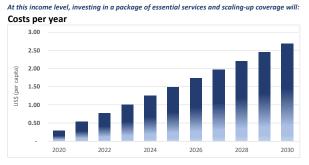


Probability of premature death from cancer per year

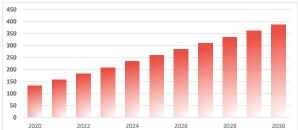


INVESTMENT CASE (2019)









Other childhood cancer

CENTRAL AFRICAN REPUBLIC

Availability of population-based cancer	2019	No information	WORKFORCE		
egistry (PBCR)**	2019	No information	^o per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	No coverage	dedicates significant proportion of their time to cancer	2019	ye
of external beam radiotherapy	2019	0.0	# of radiation oncologist ^a	2019	0.0
photon,electron) ^a			# of medical physicist ^a	2019	n/s
of mammographs ^a	2020	3.8	# of surgeons ^a	2014	34.
of CT scanners ^a	2020	3.8	# of radiologist ^a	2019	n/
of MRI scanners ^a	2020	0.0	# of nuclear medicine physician ^a	2019	0.
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2009	n/
ORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	-
ICCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s
/IPOWER measures fully implemented and chieved	2018	0	Pathology services	2019	generally availabl
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally no availabl
alliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally no availabl
of treatment services (surgery, adiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	
reast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per r	niliion inhabitants	per day
Breast cancer screening program: Starting ige, target population	2019	n/a			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
IPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	26
ervical cancer screening	2019	no	Early detection programme/guidelines	2019	n
creening programme type	2019	n/a	Defined referral system	2019	n
creening programme method	2019	n/a			
creening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	n/a no			
efined referral system	2019	no	26	■ Acute	lymphoid leukaemia
eea receitar system	2013	110	19	■ Hodgk	in lymphoma
			8 7	■ Burkiti	lymphoma
			11	■ CNS, lo	ow grade tumours
			172	■ Retino	blastoma

^{**}The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry
***The mortality estimates for this country have a high degree of uncertainty because they are not based on any national NCD mortality data



BURDEN OF CANCER



37,411,038

Total # cancer cases (2018)
249,077

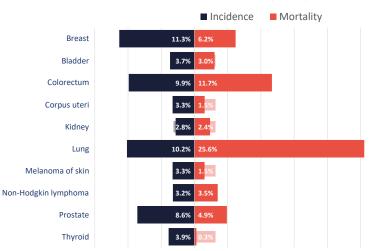
Total # cancer deaths (2018) **81,378**

Premature deaths from NCDs (2016) 58,329

Cancer as % of NCD premature deaths (2016)

49.8%

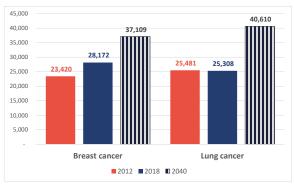
Most common cancer cases (2018)



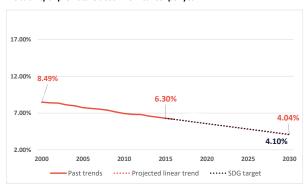
	29.0%	7.2%	3.9%	5.8%	85.4%	7.3%
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk (2017) ^a
,	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			

TRENDS

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



Probability of premature death from cancer per year

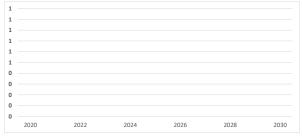


INVESTMENT CASE (2019)

*High income

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





CANADA

Screening participation rates

Defined referral system

Early detection programme/guidelines

2019

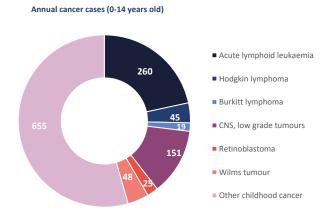
2019

2019

70% or more

yes

^a per 10,000 cancer patients					
Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR	WORKFORCE		
egistry (FBCK)			"per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	High	dedicates significant proportion of their time to cancer	2019	ye
# of external beam radiotherapy	2019	11.4	# of radiation oncologist ^a	2019	n/
(photon,electron) ^a	2019	11.4	# of medical physicist ^a	2019	29.
# of mammographs ^a	2020	27.0	# of surgeons ^a	2013	300.
# of CT scanners ^a	2020	22.5	# of radiologist ^a	2019	94.
# of MRI scanners ^a	2020	14.7	# of nuclear medicine physician ^a	2019	10.
# of PET or PET/CT scanners ^a	2020	2.2	# of medical & pathology lab scientists ^a	2009	n/a
FORMULATING RESPONSE					
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	1.9
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(
MPOWER measures fully implemented and achieved	2018	3	Pathology services	2019	generally availabl
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally availabl
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally availabl
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	1992
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per	miliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	50			
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	83	Annual cancer cases (0-14 years old)	2020	120
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	ye
Screening programme type	2019	organised	Defined referral system	2019	ye
Screening programme method	2019	PAP smear			
· · ·			Annual cancor casos (0.14 years old)		



SWITZERLAND

BURDEN OF CANCER



8,591,361

Total # cancer cases (2018) **56,506**

Total # cancer deaths (2018)
18,377

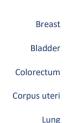
Premature deaths from NCDs (2016)

11,123

Cancer as % of NCD premature deaths (2016)

53.8%

Most common cancer cases (2018)

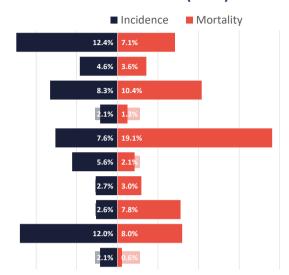


Melanoma of skin

Non-Hodgkin lymphoma

Pancreas Prostate

Thyroid



PAFS (population attributable fractions)

Tobacco (2017)^a

26.0%

Alcohol (2016)^a

^b PAF, cancer cases

7.0%

Infections (2012)^b

3.9%

^c PAF, melanoma cases

Obesity (2012)^b

4.4%

92.0%

7.2%

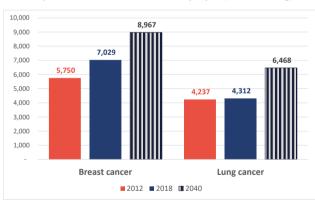
UV (2012)^c

Occupational risk (2017)^a

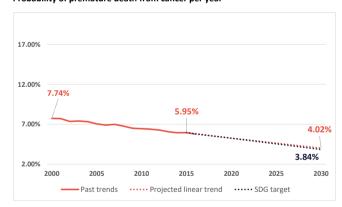
TRENDS

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

^a PAF, cancer deaths



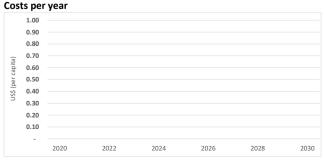
Probability of premature death from cancer per year

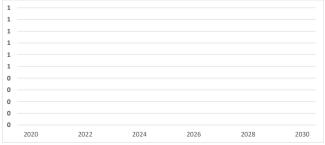


INVESTMENT CASE (2019)

*High income

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





SWITZERLAND

HEALTH SYSTEM CAPACITY

per 10,000 cancer patients					
Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
registry (PBCR)**		0 4.4	° per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	High	dedicates significant proportion of their time to cancer	2019	yes
# of external beam radiotherapy	2019	12.7	# of radiation oncologist ^a	2019	20.9
(photon,electron) ^a	2019	12.7	# of medical physicist ^a	2019	38.2
of mammographs ^a	2020	49.6	# of surgeons ^a	2013	724.0
# of CT scanners ^a	2020	63.2	# of radiologist ^a	2019	154.1
of MRI scanners ^a	2020	67.2	# of nuclear medicine physician ^a	2019	38.2
of PET or PET/CT scanners ^a	2020	5.1	# of medical & pathology lab scientists ^a	n/a	n/a
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	n/a
		•	· · · · · · · · · · · · · · · · · · ·		•
NCCP (including cancer types)	2019	operational	4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	11962

yes

50

GLOBAL INITIATIVES

age, target population

Breast cancer screening program

Breast cancer screening program: Starting

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

2019

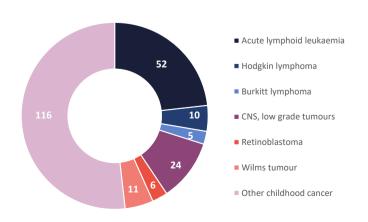
2019

Global Initiative for Childhood Cancer

management

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

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





BURDEN OF CANCER

Total population (2019)

18,952,035

Total # cancer cases (2018) **53,365**

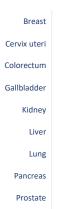
Total # cancer deaths (2018)
28,443

Premature deaths from NCDs (2016) 30,456

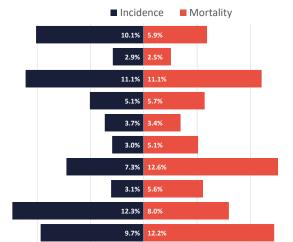
Cancer as % of NCD premature deaths (2016)

37.9%

Most common cancer cases (2018)



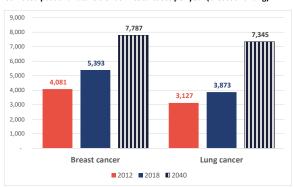
Stomach



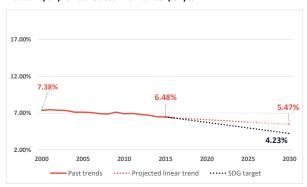


TRENDS

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



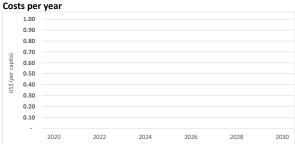
Probability of premature death from cancer per year

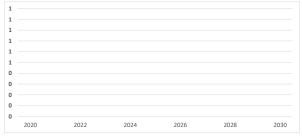


INVESTMENT CASE (2019)

*High income

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







HEALTH SYSTEM CAPACITY

per 10,000 cancer patients					
Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
registry (PBCR)**			^o per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	High	dedicates significant proportion of their time to cancer	2019	yes
f of external beam radiotherapy	2010	0.0	# of radiation oncologist ^a	2019	n/a
photon,electron) ^a	2019	9.2	# of medical physicist ^a	2019	5.6
of mammographs ^a	2020	49.8	# of surgeons ^a	2012	1337.4
of CT scanners ^a	2020	82.1	# of radiologist ^a	2019	135.3
of MRI scanners ^a	2020	41.6	# of nuclear medicine physician ^a	2019	8.2
of PET or PET/CT scanners ^a	2020	3.4	# of medical & pathology lab scientists ^a	2009	5.4

FORMULATING RESPONSE

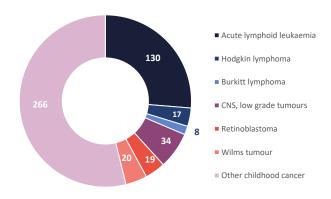
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	n/a
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
MPOWER measures fully implemented and achieved	2018	3	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	1183
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per	miliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	50			

GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	74.8
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	don't know
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	494
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes





BURDEN OF CANCER

Total population (2019)

1,441,860,295

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

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

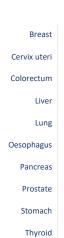
Premature deaths from NCDs (2016)

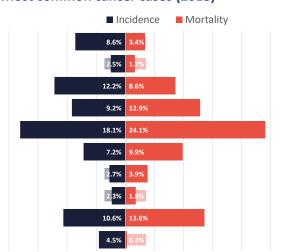
3,177,367

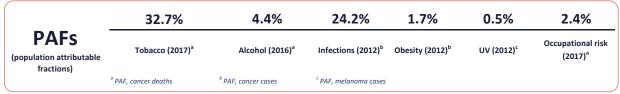
Cancer as % of NCD premature deaths (2016)

36.2%

Most common cancer cases (2018)

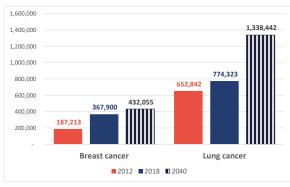




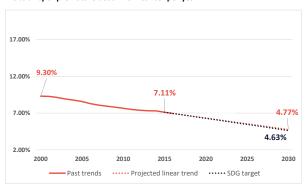


TRENDS

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

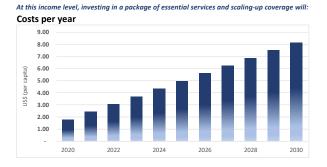


Probability of premature death from cancer per year

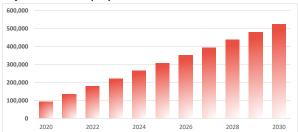


INVESTMENT CASE (2019)

*Upper middle income







Other childhood cancer



Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
registry (PBCR)**	2013	g quanty . 2 c	° per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	Low	dedicates significant proportion of their time to cancer	2019	ye
# of external beam radiotherapy	2019	3.8	# of radiation oncologist ^a	2019	n/a
photon, electron) ^a			# of medical physicist ^a	2019	4.7
# of mammographs ^a	2020	0.5	# of surgeons ^a	2012	683.8
# of CT scanners ^a	2020	39.2	# of radiologist ^a	2019	281.9
# of MRI scanners ^a	2020	15.6	# of nuclear medicine physician ^a	2019	7.0
# of PET or PET/CT scanners ^a	2020	0.7	# of medical & pathology lab scientists ^a	2010	n/a
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	1.6
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	don't knov
Palliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally no available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	88
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per r	miliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	35			
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	35374
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	no
Screening programme type	2019	organised	Defined referral system	2019	nc
Screening programme method	2019	PAP smear			
Screening participation rates	2019	10%-50%	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	yes			
		•		■ Acute	lymphoid leukaemia
Defined referral system	2019	yes	7849	■ Hodgk	kin lymphoma
				10/	t lymphoma
			1356	307 ■ CNS, I	ow grade tumours
			22763	■ Retino	bblastoma
				■ Wilms	tumour
				- *************************************	

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

CÔTE D'IVOIRE

BURDEN OF CANCER

Total population (2019)

25,716,554

Total # cancer cases (2018)

14,484

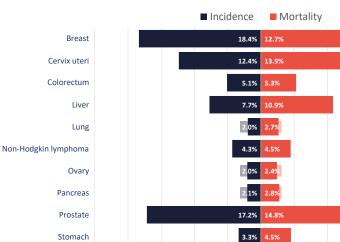
Total # cancer deaths (2018)
10,405

Premature deaths from NCDs (2016) 51,751

Cancer as % of NCD premature deaths (2016)

11.8%

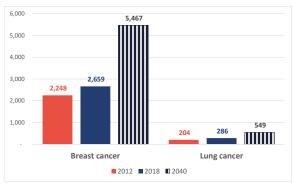
Most common cancer cases (2018)



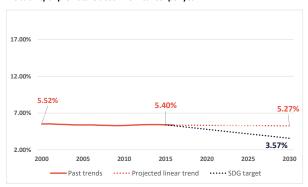
	n/a	6.6%	31.6%	1.6%	29.8%	0.8%
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012)°	Occupational risk (2017) ^a
indections)	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			

TRENDS

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

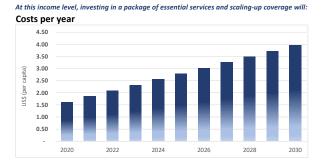


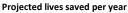
Probability of premature death from cancer per year

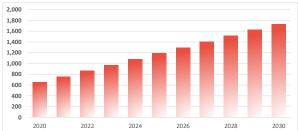


INVESTMENT CASE (2019)

*Lower middle income







CÔTE D'IVOIRE

HEALTH SYSTEM CAPACITY

per 10,000 cancer patients					
Availability of population-based cancer	2019	PBCR	WORKFORCE		
registry (PBCR)**			^o per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	No coverage	dedicates significant proportion of their	2019	yes
			time to cancer	2010	
# of external beam radiotherapy	2019	1.4	# of radiation oncologist ^a	2019	n/a
(photon,electron) ^a	2019	1.4	# of medical physicist ^a	2019	n/a
# of mammographs ^a	2020	6.9	# of surgeons ^a	2014	219.6
# of CT scanners ^a	2020	13.8	# of radiologist ^a	2019	21.4
# of MRI scanners ^a	2020	2.1	# of nuclear medicine physician ^a	2019	0.7
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2014	1643.2

FORMULATING RESPONSE

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

# Public cancer centres per 10,000 cancer patients	2019	0.7
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
Pathology services	2019	generally not available
Bone marrow transplantation capacity	2019	generally not available
Palliative care availability: community/home-based care	2019	generally not available
Availability of opioids* for pain management	2015-2017	3

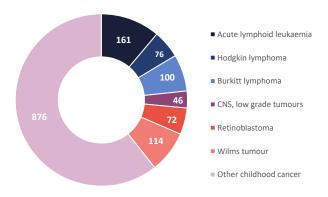
^{*}Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
Screening programme method	2019	visual inspection
Screening participation rates	2019	10%-50%
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	1445
Early detection programme/guidelines	2019	no
Defined referral system	2019	no



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

CAMEROON

BURDEN OF CANCER

Total population (2019)

25,876,387

Total # cancer cases (2018)
15,769

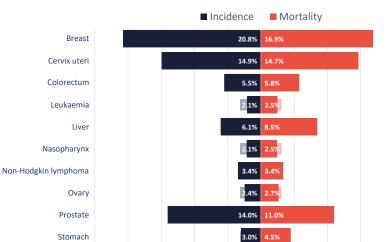
Total # cancer deaths (2018)
10,533

Premature deaths from NCDs (2016) 34,330

Cancer as % of NCD premature deaths (2016)

22.4%

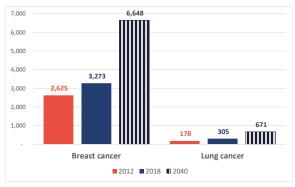
Most common cancer cases (2018)



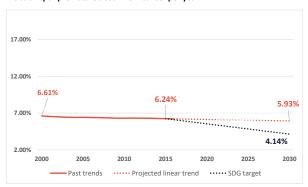


TRENDS

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

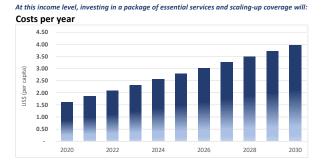


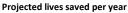
Probability of premature death from cancer per year

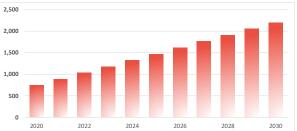


INVESTMENT CASE (2019)

*Lower middle income







Other childhood cancer

CAMEROON

vailability of population-based cancer	2019	Registration activity	WORKFORCE		
egistry (PBCR)**	2013	negion activity	^o per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	No coverage	dedicates significant proportion of their time to cancer	2019	уе
of external beam radiotherapy	2019	0.6	# of radiation oncologist ^a	2019	n/
ohoton,electron) ^a			# of medical physicist ^a	2019	n/
of mammographs ^a	2020	23.5	# of surgeons ^a	2013	52.
of CT scanners ^a	2020	17.8	# of radiologist ^a	2019	25.
of MRI scanners ^a	2020	0.6	# of nuclear medicine physician ^a	2019	n/
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2004	n/
ORMULATING RESPONSE					
ntegrated NCD plan	2019	under development	# Public cancer centres per 10,000 cancer patients	2019	1.3
ICCP (including cancer types)	2019	under development	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(
/IPOWER measures fully implemented and chieved	2018	1	Pathology services	2019	generally availab
ancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally no availab
alliative care included in their operational, ntegrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally no availab
of treatment services (surgery, adiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	
reast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per r	miliion inhabitants	per day
reast cancer screening program: Starting ge, target population	2019	n/a			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
PV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	139
ervical cancer screening	2019	no	Early detection programme/guidelines	2019	n
creening programme type	2019	n/a	Defined referral system	2019	n
creening programme method	2019	n/a			
creening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	no			
efined referral system	2019	no	142	■ Acute	lymphoid leukaemia
	2013		98	■ Hodgk	in lymphoma
			45	■ Burkit	t lymphoma
			92	■ CNS, lo	ow grade tumours
			921	■ Retino	blastoma

^{**}The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry
***The mortality estimates for this country have a high degree of uncertainty because they are not based on any national NCD mortality data

DEMOCRATIC REPUBLIC OF THE CONGO

BURDEN OF CANCER

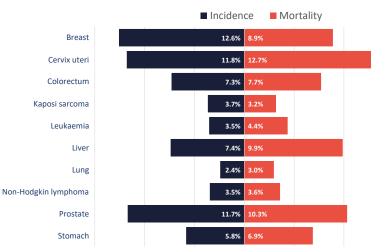


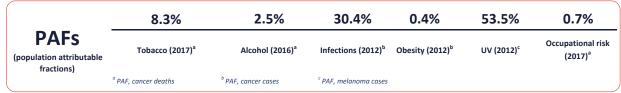
Premature deaths from NCDs (2016) 85,688

Cancer as % of NCD premature deaths (2016)

29.5%

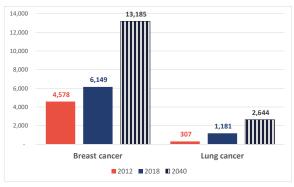




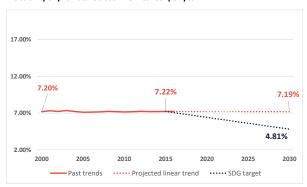


TRENDS

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

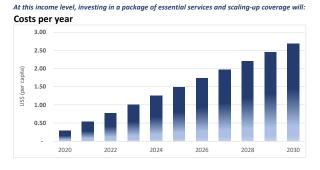


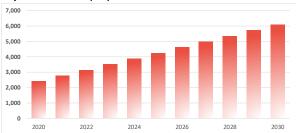
Probability of premature death from cancer per year



INVESTMENT CASE (2019)







Other childhood cancer

DEMOCRATIC REPUBLIC OF THE CONGO

Availability of population-based cancer	2019	No information	WORKFORCE		
egistry (PBCR)**			° per 10,000 cancer patients Available staff in Ministry of Health who		
uality of mortality registration***	2007-2016	No coverage	dedicates significant proportion of their time to cancer	2019	n/s
of external beam radiotherapy	2019	0.0	# of radiation oncologist ^a	2019	n/
hoton,electron) ^a			# of medical physicist ^a	2019	n/
of mammographs ^a	2020	1.2	# of surgeons ^a	2013	11.
of CT scanners ^a	2020	2.5	# of radiologist ^a	2019	19.
of MRI scanners ^a	2020	0.0	# of nuclear medicine physician ^a	2019	0.
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2009	n/
ORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	n/a
ICCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(
IPOWER measures fully implemented and chieved	2018	1	Pathology services	2019	generally no availab
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	
alliative care included in their operational, tegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally no availab
of treatment services (surgery, diotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	
reast cancer screening program	2019		*Defined daily doses for statistical purposes (S-DDD) per mi.	liion inhabitants per	dav
reast cancer screening program: Starting ge, target population	2019	n/a		,	,
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
PV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	510
ervical cancer screening	2019		Early detection programme/guidelines	2019	
creening programme type	2019	n/a	Defined referral system	2019	
creening programme method	2019	n/a	A		
creening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	yes		■ A cuto lum	nphoid leukaemia
efined referral system	2019	yes	520	- Acute lyll	трпоти тейкаетта
Simed reterral system	2013	yes	164	■ Hodgkin	ymphoma
			134	■ Burkitt ly	
			206		grade tumours
			3379	■ Retinobla	
				Wilms tu	mour
					ldbood 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

CONGO

BURDEN OF CANCER

Total population (2019)

5,380,504

Total # cancer cases (2018) **2,415**

Total # cancer deaths (2018)

1,577

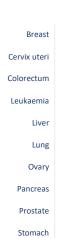
Premature deaths from NCDs (2016)

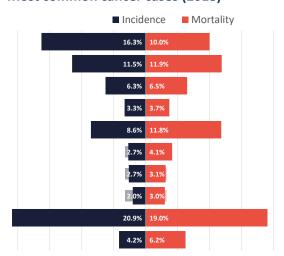
5,494

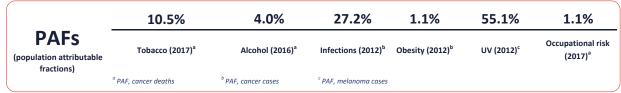
Cancer as % of NCD premature deaths (2016)

20.8%

Most common cancer cases (2018)

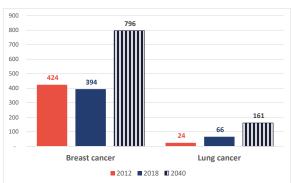




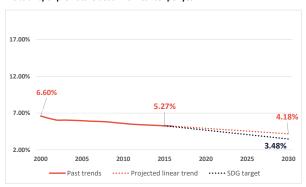


TRENDS

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

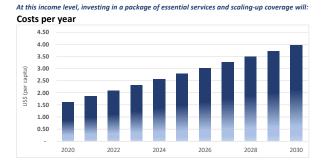


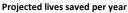
Probability of premature death from cancer per year

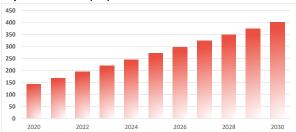


INVESTMENT CASE (2019)

*Lower middle income







Other childhood cancer

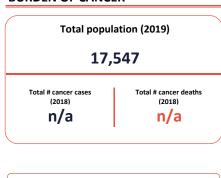
CONGO

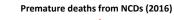
per 10,000 cancer patients Availability of population-based cancer	2010	DD CD	WORKFORCE		
gistry (PBCR)**	2019	PBCR	° per 10,000 cancer patients Available staff in Ministry of Health who		
uality of mortality registration***	2007-2016	No coverage	dedicates significant proportion of their time to cancer	2019	ne
of external beam radiotherapy	2010	0.0	# of radiation oncologist ^a	2019	n/a
hoton, electron) a	2019	0.0	# of medical physicist ^a	2019	0.
of mammographs ^a	2020	8.3	# of surgeons ^a	2013	29.
of CT scanners ^a	2020	16.6	# of radiologist ^a	2019	n/
of MRI scanners ^a	2020	8.3	# of nuclear medicine physician ^a	2019	n/
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2007	1159.
ORMULATING RESPONSE					
stegrated NCD plan	2019	not in effect	# Public cancer centres per 10,000 cancer patients	2019	20.7
ICCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s
1POWER measures fully implemented and chieved	2018	2	Pathology services	2019	generally availabl
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally no availabl
alliative care included in their operational, tegrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally no availabl
of treatment services (surgery, diotherapy, chemotherapy)	2019	1	Availability of opioids* for pain management 2	015-2017	
reast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per mili	ion inhabitants	per day
reast cancer screening program: Starting ge, target population	2019	n/a			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
PV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	28
ervical cancer screening	2019	no	Early detection programme/guidelines	2019	n
creening programme type	2019	n/a	Defined referral system	2019	n
creening programme method	2019	n/a			
creening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	no			
efined referral system	2019		29 20	■ Acute	lymphoid leukaemia
enned referral system	2019	no	20	■ Hodgk	in lymphoma
			9 7	■ Burkit	t lymphoma
			11	CNS, I	ow grade tumours
			188	■ Retino	blastoma
				Wilms	tumour

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

COOK ISLANDS

BURDEN OF CANCER







n/a

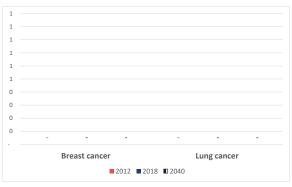
Most common cancer cases (2018)



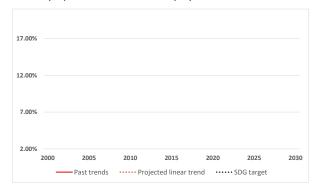


TRENDS

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



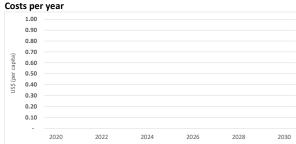
Probability of premature death from cancer per year

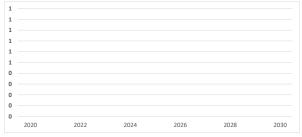


INVESTMENT CASE (2019)

*Not Classified







COOK ISLANDS

н	FΛ	I T	ш	C١	/CT	LEV	л	$C\Lambda$	DΛ	ITY

Per 10,000 cancer patients Availability of population-based cancer	2019	Registration activity	WORKFORCE		
registry (PBCR)**	2013	neg.ou auton activity	° per 10,000 cancer patients Available staff in Ministry of Health who		
uality of mortality registration***	2007-2016	Medium	dedicates significant proportion of their time to cancer	2019	n
of external beam radiotherapy	2019	n/a	# of radiation oncologist ^a	2019	n/
photon, electron) ^a	2013	, u	# of medical physicist ^a	2019	n/
of mammographs ^a	2020	n/a	# of surgeons ^a	2014	n/
of CT scanners ^a	2020	n/a	# of radiologist ^a	2019	n/
of MRI scanners ^a	2020	n/a	# of nuclear medicine physician ^a	2019	n/s
of PET or PET/CT scanners ^a	2020	n/a	# of medical & pathology lab scientists ^a	2014	n/
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	n/a
ICCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally availabl
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally no availabl
alliative care included in their operational, ntegrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally no availabl
of treatment services (surgery, adiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	16
reast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per	miliion inhabitants	per dav
reast cancer screening program: Starting ge, target population	2019	40			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
IPV vaccination programme coverage	2018	99	Annual cancer cases (0-14 years old)	2020	n/
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	n
creening programme type	2019	organised	Defined referral system	2019	n
creening programme method	2019	PAP smear			
creening participation rates	2019	400/	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	<10% no			
arry detection programme/guidennes	2019	110		■ Acute	lymphoid leukaemia
efined referral system	2019	no		■ Hodgk	in lymphoma
				■ Burkit	t lymphoma
				■ CNS, I	ow grade tumours
				■ Retino	blastoma
				Wilms	tumour
				■ Other	childhood cancer

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

COLOMBIA

BURDEN OF CANCER

Total population (2019)

50,339,443

Total # cancer cases (2018)
101,893

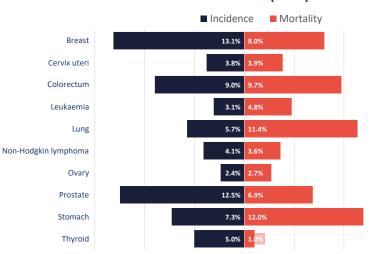
Total # cancer deaths (2018)
46,057

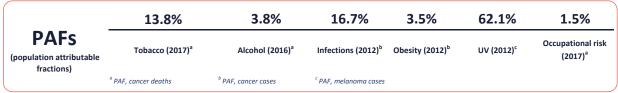
Premature deaths from NCDs (2016) 86,545

Cancer as % of NCD premature deaths (2016)

36.1%

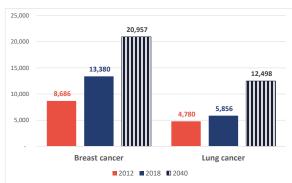
Most common cancer cases (2018)



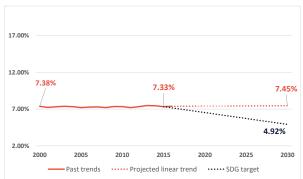


TRENDS

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

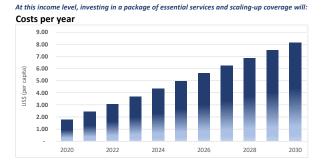


Probability of premature death from cancer per year

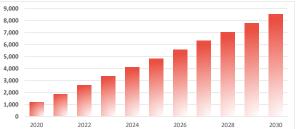


INVESTMENT CASE (2019)

*Upper middle income







yes n/a

272.4 127.6 8.0 n/a

COLOMBIA

HEALTH SYSTEM CAPACITY

per 10,000 cancer patients					
Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
registry (PBCR)**			° per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	Medium	dedicates significant proportion of their	2019	
			time to cancer		
# of external beam radiotherapy (photon,electron) ^a	2019	8.7	# of radiation oncologist ^a	2019	
		0.7	# of medical physicist ^a	2019	
# of mammographs ^a	2020	49.1	# of surgeons ^a	2014	
# of CT scanners ^a	2020	147.2	# of radiologist ^a	2019	
# of MRI scanners ^a	2020	34.3	# of nuclear medicine physician ^a	2019	
# of PET or PET/CT scanners ^a	2020	1.4	# of medical & pathology lab scientists 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	2
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	5.6
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 not available
Availability of opioids* for pain management	2015-2017	980

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

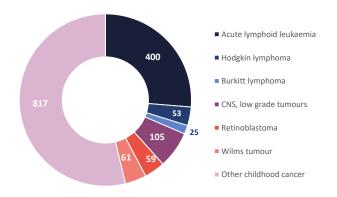
GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	29.3
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	>50% and <70%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

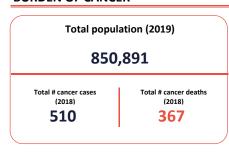
Annual cancer cases (0-14 years old)	2020	1520
Early detection programme/guidelines	2019	yes
Defined referral system	2019	ves

Annual cancer cases (0-14 years old)



COMOROS

BURDEN OF CANCER

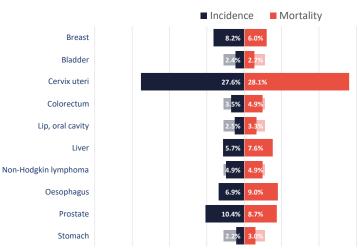


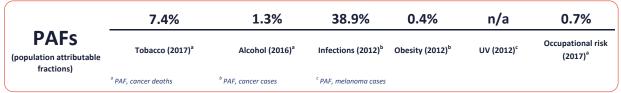
Premature deaths from NCDs (2016) 1,189

Cancer as % of NCD premature deaths (2016)

26.7%

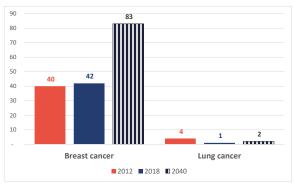
Most common cancer cases (2018)



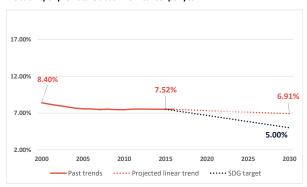


TRENDS

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

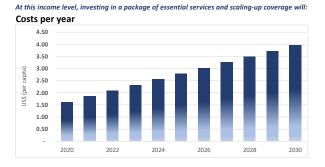


Probability of premature death from cancer per year

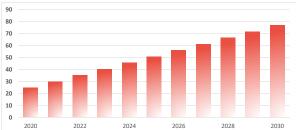


INVESTMENT CASE (2019)

*Lower middle income







COMOROS

HEALTH SYSTEM CAPACITY

per 10,000 cancer patients					
Availability of population-based cancer	2019	No information	WORKFORCE		
registry (PBCR)**			[®] per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	No coverage	dedicates significant proportion of their time to cancer	2019	n/a
of external beam radiotherapy	2019	0.0	# of radiation oncologist ^a	2019	n/a
photon,electron) ^a	2019	0.0	# of medical physicist ^a	2019	0.0
of mammographs ^a	2020	19.6	# of surgeons ^a	n/a	n/a
of CT scanners ^a	2020	19.6	# of radiologist ^a	2019	n/a
f of MRI scanners ^a	2020	0.0	# of nuclear medicine physician ^a	2019	0.0
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2012	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	under development	# Public cancer centres per 1 patients
NCCP (including cancer types)	2019	don't know	Early detection programme/ 4 cancers (breast, cervix, colo
MPOWER measures fully implemented and achieved	2018	0	Pathology services
Cancer management guidelines	2019	don't know	Bone marrow transplantatio
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	1	Availability of opioids* for pa
Breast cancer screening program	2019	don't know	*Defined daily doses for statistical pur
Breast cancer screening program: Starting age, target population	2019	n/a	

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

ourposes (S-DDD) per miliion inhabitants per day

GLOBAL INITIATIVES

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

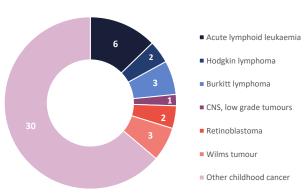
Global Initiative for Childhood Cancer Annual cancer cases (0-14 years old) 2020 Early detection programme/guidelines 2019

2019

47

Annual cancer cases (0-14 years old)

Defined referral system



^{**}The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry
***The mortality estimates for this country have a high degree of uncertainty because they are not based on any national NCD mortality data

CABO VERDE

BURDEN OF CANCER

Total population (2019)
549,936

Total # cancer cases (2018) **641**

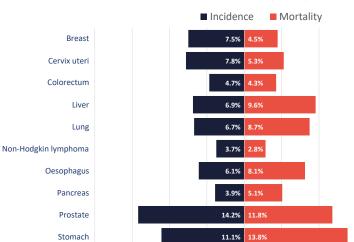
Total # cancer deaths (2018)
492

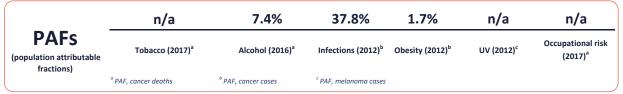
Premature deaths from NCDs (2016)
610

Cancer as % of NCD premature deaths (2016)

27.0%

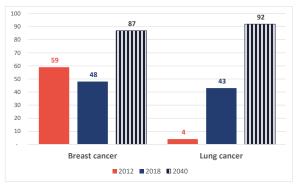
Most common cancer cases (2018)



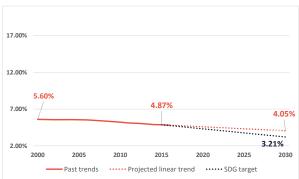


TRENDS

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

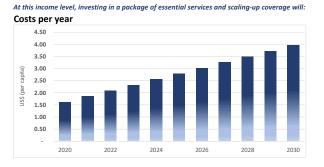


Probability of premature death from cancer per year

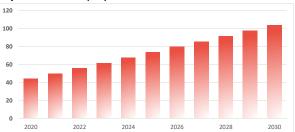


INVESTMENT CASE (2019)

*Lower middle income







Other childhood cancer

CABO VERDE

Availability of population-based cancer	2010	Registration activity	WORKFORCE		
registry (PBCR)**	2019	Registration activity	^o per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	Low	dedicates significant proportion of their time to cancer	2019	ye
of external beam radiotherapy	2019	0.0	# of radiation oncologist ^a	2019	n/a
photon, electron) a	2023	5.5	# of medical physicist ^a	2019	n/s
of mammographs ^a	2020	62.4	# of surgeons ^a	2011	889.
of CT scanners ^a	2020	15.6	# of radiologist ^a	2019	46.
of MRI scanners ^a	2020	15.6	# of nuclear medicine physician ^a	2019	0.
of PET or PET/CT scanners ^a	2020	15.6	# of medical & pathology lab scientists ^a	n/a	n/
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	-
ICCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s
MPOWER measures fully implemented and schieved	2018	0	Pathology services	2019	generally availabl
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally no availabl
alliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally no availabl
of treatment services (surgery, adiotherapy, chemotherapy)	2019	1	Availability of opioids* for pain management	2015-2017	4
Breast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per I	miliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	n/a			
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	2
Cervical cancer screening	2019	no	Early detection programme/guidelines	2019	n
creening programme type	2019	n/a	Defined referral system	2019	n
creening programme method	2019	n/a			
Screening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	no			
			3	■ Acute	lymphoid leukaemia
Defined referral system	2019	no	1	■ Hodgk	in lymphoma
			1	■ Burkiti	lymphoma
			12	■ CNS, Id	ow grade tumours
			1	■ Retino	blastoma
			2		

^{**}The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry
***The mortality estimates for this country have a high degree of uncertainty because they are not based on any national NCD mortality data

COSTA RICA

BURDEN OF CANCER

Total population (2019)

5,047,561

Total # cancer cases (2018)
12,957

Total # cancer deaths (2018)
5,709

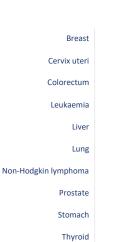
Premature deaths from NCDs (2016)

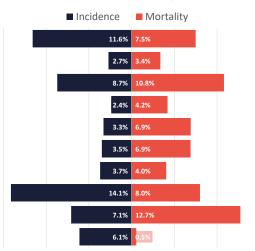
7,191

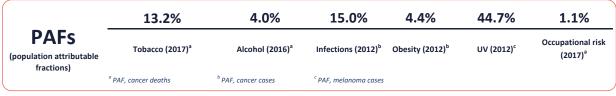
Cancer as % of NCD premature deaths (2016)

35.0%

Most common cancer cases (2018)

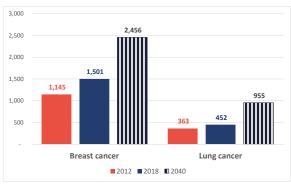




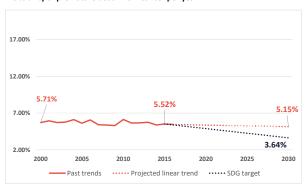


TRENDS

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

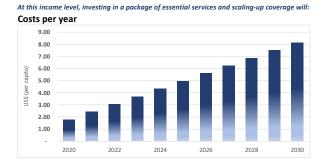


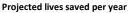
Probability of premature death from cancer per year

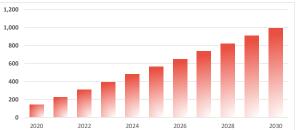


INVESTMENT CASE (2019)

*Upper middle income







yes n/a

313.3 121.2 6.2 481.6

COSTA RICA

HEALTH SYSTEM CAPACITY

per 10,000 cancer patients				
Availability of population-based cancer	2019	High quality PBCR	WORKFORCE	
registry (PBCR)**			^o per 10,000 cancer patients Available staff in Ministry of Health who	
Quality of mortality registration***	2007-2016	Medium	dedicates significant proportion of their	2019
			time to cancer	
# of external beam radiotherapy	2019	3.9	# of radiation oncologist ^a	2019
(photon,electron) ^a	2019	3.5	# of medical physicist ^a	2019
# of mammographs ^a	2020	46.3	# of surgeons ^a	2014
# of CT scanners ^a	2020	19.3	# of radiologist ^a	2019
# of MRI scanners ^a	2020	7.7	# of nuclear medicine physician ^a	2019
# of PET or PET/CT scanners ^a	2020	1.5	# of medical & pathology lab scientists ^a	2013

FORMULATING RESPONSE

Integrated NCD plan	2019	operational
NCCP (including cancer types)	2019	operational
MPOWER measures fully implemented and achieved	2018	2
Cancer management guidelines	2019	yes
Palliative care included in their operational, integrated NCD plan	2019	yes
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3
Breast cancer screening program	2019	yes
Breast cancer screening program: Starting age, target population	2019	45

# Public cancer centres per 10,000 cancer patients	2019	5.4
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s)
Pathology services	2019	generally available
Bone marrow transplantation capacity	2019	generally available
Palliative care availability: community/home-based care	2019	generally available
Availability of opioids* for pain management	2015-2017	281

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

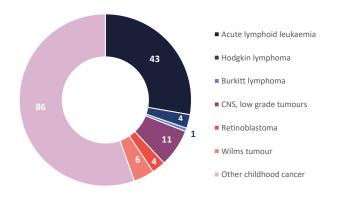
GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	don't know
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	155
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Annual cancer cases (0-14 years old)





BURDEN OF CANCER

Total population (2019)

11,333,484

Total # cancer cases (2018) 45,534

Total # cancer deaths (2018) 26,267

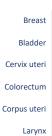
Premature deaths from NCDs (2016)

27,617

Cancer as % of NCD premature deaths (2016)

39.8%

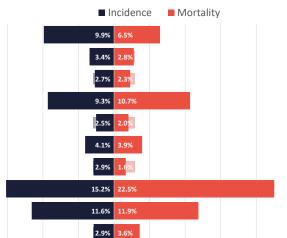
Most common cancer cases (2018)



Lip, oral cavity

Lung Prostate

Stomach



PAFs

31.4% 5.7% 8.4%

^c PAF, melanoma cases

3.9%

4.6%

2.1%

(population attributable fractions)

Tobacco (2017)^a Alcohol (2016)^a

^b PAF, cancer cases

Infections (2012)^b

Obesity (2012)^b

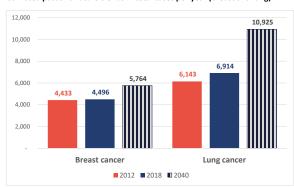
UV (2012)c

Occupational risk (2017)^a

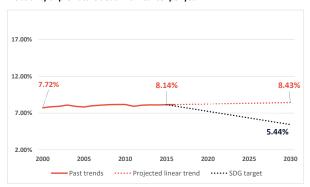
TRENDS

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

^a PAF, cancer deaths

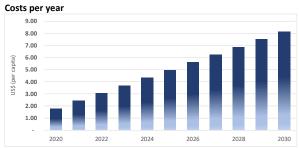


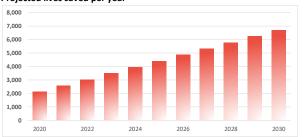
Probability of premature death from cancer per year



INVESTMENT CASE (2019)









HEALTH SYSTEM CAPACITY

^a per 10,000 cancer patients					
Availability of population-based cancer	2019	PBCR	WORKFORCE		
registry (PBCR)**			^o per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	High	dedicates significant proportion of their time to cancer	2019	yes
of external beam radiotherapy	2040	2.7	# of radiation oncologist ^a	2019	n/a
photon,electron) ^a	2019	3.7	# of medical physicist ^a	2019	10.8
# of mammographs ^a	2020	43.0	# of surgeons ^a	2013	1762.6
# of CT scanners ^a	2020	12.1	# of radiologist ^a	2019	151.3
# of MRI scanners ^a	2020	2.0	# of nuclear medicine physician ^a	2019	7.5
# of PET or PET/CT scanners ^a	2020	0.7	# of medical & pathology lab scientists ^a	2014	n/a

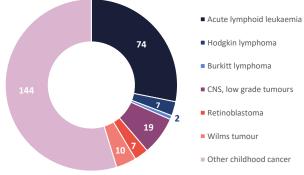
FORMULATING RESPONSE

Integrated NCD plan	2019	under development	# Public cancer centres per 10,000 cancer patients	2019	7.5
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	0
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per	miliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	30			

GLOBAL INITIATIVES

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

Global Initiative for Childhood Cancer		
Annual cancer cases (0-14 years old)	2020	263
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes
Annual cancer cases (0-14 years old)		
	■ Acuto lumpho	id laukaamia





BURDEN OF CANCER

Total population (2019)
1,198,574

Total # cancer cases (2018)
4,829

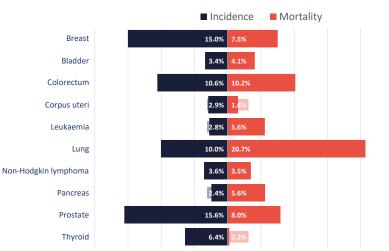
Total # cancer deaths (2018)
2,376

Premature deaths from NCDs (2016) 1,668

Cancer as % of NCD premature deaths (2016)

44.9%

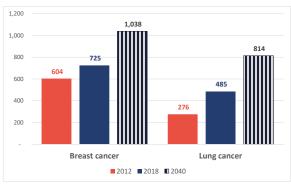
Most common cancer cases (2018)



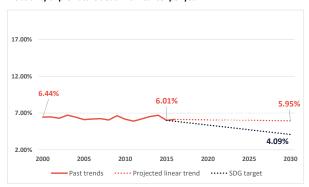


TRENDS

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



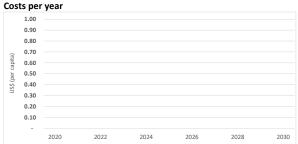
Probability of premature death from cancer per year

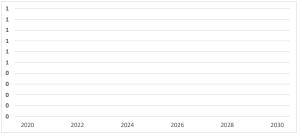


INVESTMENT CASE (2019)

*High income

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





Other childhood cancer

CYPRUS

HEALTH SYSTEM CAPACITY

^o per 10,000 cancer patients Availability of population-based cancer	2010	III ah awalin ppop	WORKFORCE		
registry (PBCR)**	2019	High quality PBCR	^a per 10,000 cancer patients		
uality of mortality registration***	2007-2016	Low	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	уе
of external beam radiotherapy	2010	44.5	# of radiation oncologist ^a	2019	n/
hoton,electron) ^a	2019	14.5	# of medical physicist ^a	2019	124.
of mammographs ^a	2020	89.0	# of surgeons ^a	2012	292.
of CT scanners ^a	2020	60.1	# of radiologist ^a	2019	320.
of MRI scanners ^a	2020	37.3	# of nuclear medicine physician ^a	2019	14.
of PET or PET/CT scanners ^a	2020	4.1	# of medical & pathology lab scientists ^a	2008	45.
ORMULATING RESPONSE					
ntegrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients	2019	2.1
ICCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s
/IPOWER measures fully implemented and chieved	2018	1	Pathology services	2019	generally availabl
ancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally availabl
alliative care included in their operational, itegrated NCD plan	2019	n/a	Palliative care availability: community/home-based care	2019	generally availabl
of treatment services (surgery, adiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	193
reast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per mi	liion inhabitants	per day
reast cancer screening program: Starting ge, target population	2019	50			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
PV vaccination programme coverage	2018	63.8	Annual cancer cases (0-14 years old)	2020	3
ervical cancer screening	2019	yes	Early detection programme/guidelines	2019	ye
creening programme type	2019	opportunistic	Defined referral system	2019	ye
creening programme method	2019	PAP smear			
creening participation rates	2019	70% or more	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	yes			
office of meta-wal arrateous	2046		8	■ Acute	lymphoid leukaemia
efined referral system	2019	yes		■ Hodgk	in lymphoma
			18	■ Burkit	t lymphoma
			2	■ CNS, I	ow grade tumours
				Retino	blastoma
			4	Wilms	tumour
			2 1	= Othor	

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

CZECH REPUBLIC

BURDEN OF CANCER

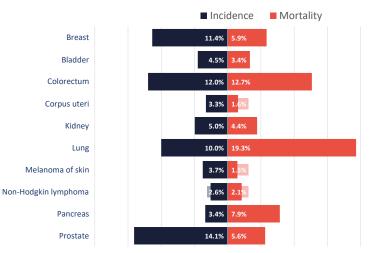


Premature deaths from NCDs (2016) 27,115

Cancer as % of NCD premature deaths (2016)

43.3%

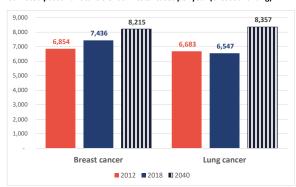
Most common cancer cases (2018)



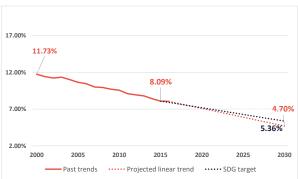


TRENDS

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



Probability of premature death from cancer per year

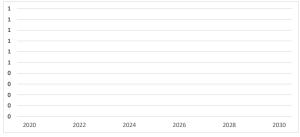


INVESTMENT CASE (2019)

*High income

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





CZECH REPUBLIC

HEALTH	SYSTEM	CAPACITY
---------------	---------------	-----------------

° per 10,000 cancer patients			
Availability of population-based cancer	2019	High quality PBCR	WORKFOR
registry (PBCR)**			° per 10,000 cance. Available sta
Quality of mortality registration***	2007-2016	High	dedicates sign
			time to cance
# of external beam radiotherapy	2019	9.3	# of radiation
(photon,electron) ^a	2013	5.5	# of medical
# of mammographs ^a	2020	18.8	# of surgeons
# of CT scanners ^a	2020	33.5	# of radiolog
# of MRI scanners ^a	2020	17.0	# of nuclear i
# of PET or PET/CT scanners ^a	2020	2.4	# of medical

WORKFORCE		
per 10,000 cancer patients		
Available staff in Ministry of Health who		
dedicates significant proportion of their	2019	yes
time to cancer		
# of radiation oncologist ^a	2019	39.1
# of medical physicist ^a	2019	22.5
# Of Medical physicist	2019	22.5
# of surgeons ^a	2013	1289.6
# Of Surgeons	2015	1203.0
# of radiologist ^a	2019	229.2
or running.or		
# of nuclear medicine physician ^a	2019	19.2
	,	
# 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	45

# Public cancer centres per 10,000 cancer patients	2019	9.3
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
Pathology services	2019	generally available
Bone marrow transplantation capacity	2019	generally available
Palliative care availability: community/home-based care	2019	generally available
Availability of opioids* for pain management	2015-2017	5005

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

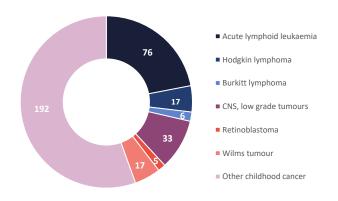
GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	0
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	>50% and <70%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	346
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Annual cancer cases (0-14 years old)



GERMANY

BURDEN OF CANCER

Total population (2019)

83,517,046

Total # cancer cases (2018) 608,742

Total # cancer deaths (2018)

247,462

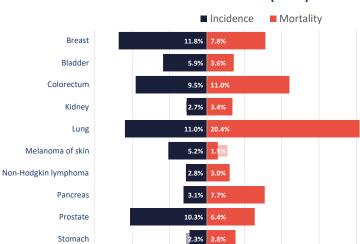
Premature deaths from NCDs (2016)

168,857

Cancer as % of NCD premature deaths (2016)

46.4%

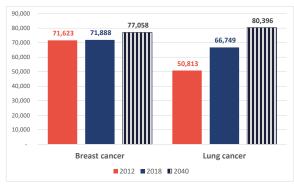
Most common cancer cases (2018)



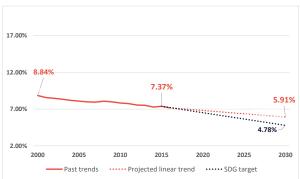


TRENDS

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



Probability of premature death from cancer per year

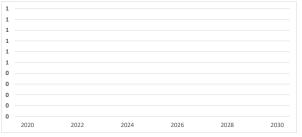


INVESTMENT CASE (2019)

*High income

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





GERMANY

per 10,000 cancer patients					
Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR	WORKFORCE		
egistry (PBCR)			oper 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	High	dedicates significant proportion of their	2019	yes
			time to cancer	2010	
of external beam radiotherapy	2019	8.9	# of radiation oncologist ^a	2019	n/a
photon, electron) a			# of medical physicist ^a	2019	26.1
of mammographs ^a	2020	0.0	# of surgeons ^a	2013	901.3
of CT scanners ^a	2020	47.8	# of radiologist ^a	2019	163.5
of MRI scanners ^a	2020	46.9	# of nuclear medicine physician ^a	2019	16.4
of PET or PET/CT scanners ^a	2020	2.1	# of medical & pathology lab scientists ^a	n/a	n/a
FORMULATING RESPONSE					
			# Public cancer centres per 10.000 cancer		

NCCP (including cancer types) 2019 operational Early detection program 4 cancers (breast, cervix	., colon, ch
MPOWER measures fully implemented and achieved 2018 1 Pathology services	
Cancer management guidelines 2019 yes Bone marrow transplan	itation cap
Palliative care included in their operational, integrated NCD plan 2019 yes Palliative care availability community/home-based	•
# of treatment services (surgery, radiotherapy, chemotherapy) 3 Availability of opioids* management	for pain
Breast cancer screening program 2019 yes *Defined daily doses for statist	ical purposes
Breast cancer screening program: Starting age, target population 2019 50	

2019 delines for 2019 4 cancer(s) childhood) 2019 generally available pacity 2019 generally available generally available 2019 26237 2015-2017

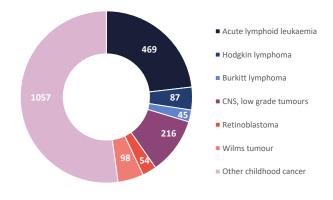
GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	31.3
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
Screening programme method	2019	PAP smear
Screening participation rates	2019	70% or more
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	2026
Early detection programme/guidelines	2019	yes
Defined referral system	2019	ves

Annual cancer cases (0-14 years old)



es (S-DDD) per miliion inhabitants per day

DJIBOUTI

BURDEN OF CANCER



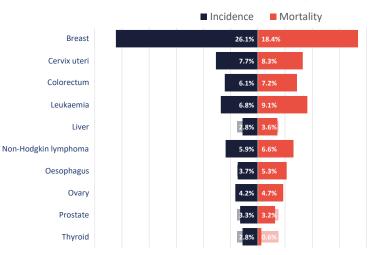
Premature deaths from NCDs (2016)

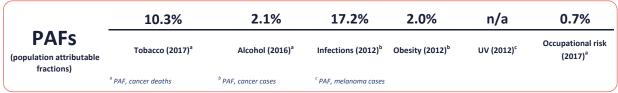
1,553

Cancer as % of NCD premature deaths (2016)

25.1%

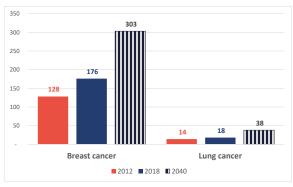
Most common cancer cases (2018)



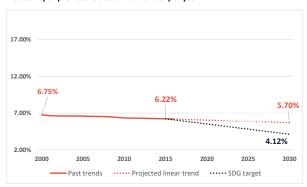


TRENDS

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

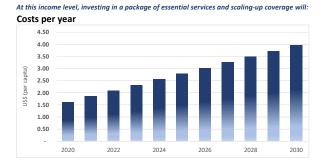


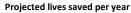
Probability of premature death from cancer per year

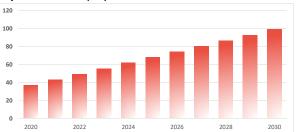


INVESTMENT CASE (2019)

*Lower middle income







Other childhood cancer

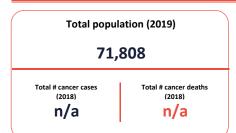
DJIBOUTI

ocictmy (DDCD)**	2019	No information	WORKFORCE		
registry (PBCR)**	2019	No information	^a per 10,000 cancer patients		
Quality of mortality registration***	2007-2016	No coverage	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	n/s
of external beam radiotherapy	2019	0.0	# of radiation oncologist ^a	2019	n/
photon,electron) ^a	2019	0.0	# of medical physicist ^a	2019	0.
of mammographs ^a	2020	59.3	# of surgeons ^a	2013	252.
of CT scanners ^a	2020	59.3	# of radiologist ^a	2019	n/
of MRI scanners ^a	2020	14.8	# of nuclear medicine physician ^a	2019	0.
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2005	44.
FORMULATING RESPONSE					
ntegrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients	2019	-
NCCP (including cancer types)	2019	not in effect	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally availabl
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally no availabl
Palliative care included in their operational, ntegrated NCD plan	2019	n/a	Palliative care availability: community/home-based care	2019	generally no availabl
f of treatment services (surgery, adiotherapy, chemotherapy)	2019	1	Availability of opioids* for pain management	2015-2017	
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per i	miliion inhabitants	per day
Breast cancer screening program: Starting	2019	50			
age, target population					
age, target population					
GLOBAL INITIATIVES			Global Initiative for Childhood Cancer		
GLOBAL INITIATIVES Elimination of Cervical Cancer	2018	n/a	Global Initiative for Childhood Cancer Annual cancer cases (0-14 years old)	2020	3
GLOBAL INITIATIVES Elimination of Cervical Cancer HPV vaccination programme coverage	2018 2019	n/a yes		2020 2019	
GLOBAL INITIATIVES Elimination of Cervical Cancer HPV vaccination programme coverage Cervical cancer screening			Annual cancer cases (0-14 years old)		n
GLOBAL INITIATIVES Elimination of Cervical Cancer HPV vaccination programme coverage Cervical cancer screening Screening programme type	2019	yes	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system	2019	n
GLOBAL INITIATIVES Elimination of Cervical Cancer HPV vaccination programme coverage Cervical cancer screening Screening programme type Screening programme method	2019 2019	yes	Annual cancer cases (0-14 years old) Early detection programme/guidelines	2019	n
GLOBAL INITIATIVES Elimination of Cervical Cancer HPV vaccination programme coverage Cervical cancer screening Screening programme type Screening programme method Screening participation rates	2019 2019 2019	yes organised PAP smear	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system	2019	ne
GLOBAL INITIATIVES Elimination of Cervical Cancer HPV vaccination programme coverage Cervical cancer screening Screening programme type Screening programme method Screening participation rates Early detection programme/guidelines	2019 2019 2019 2019 2019	yes organised PAP smear 10%-50% no	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system	2019	3 no no lymphoid leukaemia
GLOBAL INITIATIVES Elimination of Cervical Cancer HPV vaccination programme coverage Cervical cancer screening Screening programme type Screening programme method Screening participation rates	2019 2019 2019 2019	yes organised PAP smear 10%-50%	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system Annual cancer cases (0-14 years old)	2019 2019	no
GLOBAL INITIATIVES Elimination of Cervical Cancer HPV vaccination programme coverage Cervical cancer screening Goreening programme type Goreening programme method Goreening participation rates Early detection programme/guidelines	2019 2019 2019 2019 2019	yes organised PAP smear 10%-50% no	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system Annual cancer cases (0-14 years old)	2019 2019 • Acute	no no lymphoid leukaemia
GLOBAL INITIATIVES Elimination of Cervical Cancer HPV vaccination programme coverage Cervical cancer screening Screening programme type Screening programme method Screening participation rates Early detection programme/guidelines	2019 2019 2019 2019 2019	yes organised PAP smear 10%-50% no	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system Annual cancer cases (0-14 years old)	2019 2019 Acute Hodgk Burkit	nd ni lymphoid leukaemia kin lymphoma
GLOBAL INITIATIVES Elimination of Cervical Cancer HPV vaccination programme coverage Cervical cancer screening Goreening programme type Goreening programme method Goreening participation rates Early detection programme/guidelines	2019 2019 2019 2019 2019	yes organised PAP smear 10%-50% no	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system Annual cancer cases (0-14 years old)	2019 2019 Acute Hodgl Burkit CNS, I	n n lymphoid leukaemia kin lymphoma tt lymphoma

^{**}The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry
***The mortality estimates for this country have a high degree of uncertainty because they are not based on any national NCD mortality data

DOMINICA

BURDEN OF CANCER







n/a



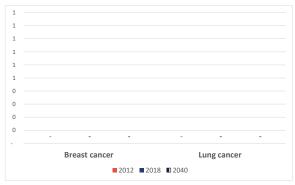
Most common cancer cases (2018)



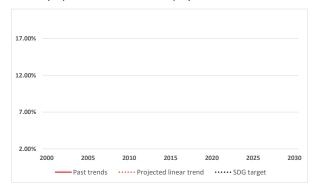
	10.1%	n/a	n/a	n/a	n/a	1.5%
PAFS (population attributable	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk (2017) ^a
fractions)	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			

TRENDS

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

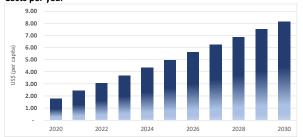


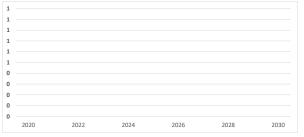
Probability of premature death from cancer per year



INVESTMENT CASE (2019)







DOMINICA

per 10,000 cancer patients Availability of population-based cancer	2040	No tofourcetou	WORKFORCE		
egistry (PBCR)**	2019	No information	° per 10,000 cancer patients		
uality of mortality registration***	2007-2016	Medium	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	уе
of external beam radiotherapy	2019	n/a	# of radiation oncologist ^a	2019	n/
photon, electron) a	2015	11/4	# of medical physicist ^a	2019	n/
of mammographs ^a	2020	n/a	# of surgeons ^a	2014	n/
of CT scanners ^a	2020	n/a	# of radiologist ^a	2019	n/
of MRI scanners ^a	2020	n/a	# of nuclear medicine physician ^a	2019	n/
of PET or PET/CT scanners ^a	2020	n/a	# of medical & pathology lab scientists ^a	n/a	n/
FORMULATING RESPONSE					
ntegrated NCD plan	2019	under development	# Public cancer centres per 10,000 cancer patients	2019	n/a
ICCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s
IPOWER measures fully implemented and chieved	2018	0	Pathology services	2019	generally availabl
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally no availabl
alliative care included in their operational, ntegrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally availabl
of treatment services (surgery, adiotherapy, chemotherapy)	2019	2	Availability of opioids* for pain management	2015-2017	11
reast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day		
reast cancer screening program: Starting ge, target population	2019	n/a			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
PV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	n/
ervical cancer screening	2019	yes	Early detection programme/guidelines	2019	n
creening programme type	2019	opportunistic	Defined referral system	2019	n
creening programme method	2019	PAP smear	Annual conservences (0.14 years old)		
creening participation rates	2019	>50% and <70%	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	no			
efined referral system	2019	no			lymphoid leukaemia
					t lymphoma
					ow grade tumours
				,	oblastoma
				Wilms	tumour
				Other	childhood cancer

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

DENMARK

BURDEN OF CANCER



5,771,877

Total # cancer cases (2018) 40,796

Total # cancer deaths (2018) 17,122

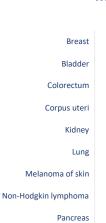
Premature deaths from NCDs (2016)

11,140

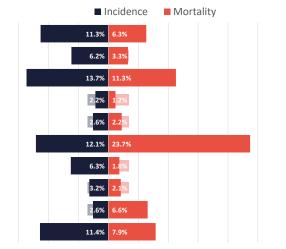
Cancer as % of NCD premature deaths (2016)

49.2%

Most common cancer cases (2018)



Prostate



PAFs (population attributable fractions)

31.6% 7.5%

Infections (2012)^b Obesity (2012)^b UV (2012)c

91.2%

8.1% Occupational risk

Tobacco (2017)^a ^a PAF, cancer deaths

^b PAF, cancer cases

Alcohol (2016)^a

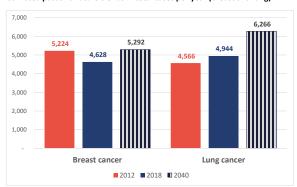
3.9%

^c PAF, melanoma cases

(2017)^a

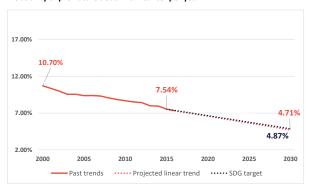
TRENDS

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



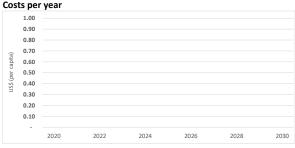
Probability of premature death from cancer per year

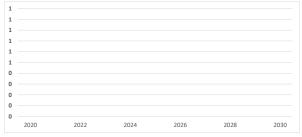
4.3%



INVESTMENT CASE (2019)

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





DENMARK

HEALTH SYSTEM CAPACITY

per 10,000 cancer patients					
Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
registry (PBCR)**			^o per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	High	dedicates significant proportion of their time to cancer	2019	yes
of external beam radiotherapy	2010	42.7	# of radiation oncologist ^a	2019	43.6
photon, electron) ^a	2019	12.7	# of medical physicist ^a	2019	43.6
of mammographs ^a	2020	24.3	# of surgeons ^a	2012	613.1
of CT scanners ^a	2020	56.4	# of radiologist ^a	2019	156.3
of MRI scanners ^a	2020	37.7	# of nuclear medicine physician ^a	2019	26.5
of PET or PET/CT scanners ^a	2020	10.3	# of medical & pathology lab scientists ^a	n/a	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	2.5
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	11960
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per	miliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	50			

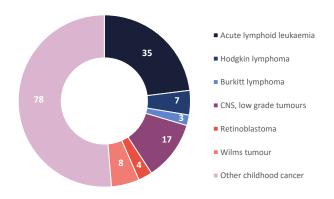
GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	54.3
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	>50% and <70%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	152
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Annual cancer cases (0-14 years old)



DOMINICAN REPUBLIC

BURDEN OF CANCER



10,738,957

Total # cancer cases (2018)
17,988

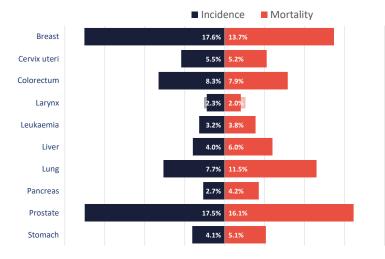
Total # cancer deaths (2018)
10,896

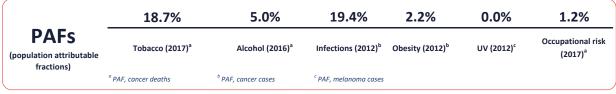
Premature deaths from NCDs (2016) 19,362

Cancer as % of NCD premature deaths (2016)

24.5%

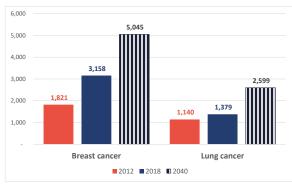
Most common cancer cases (2018)



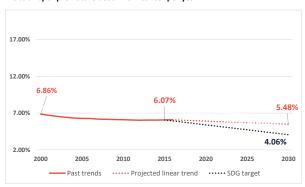


TRENDS

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

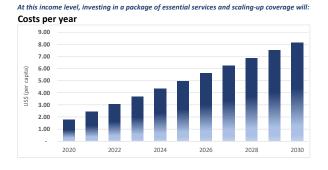


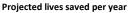
Probability of premature death from cancer per year

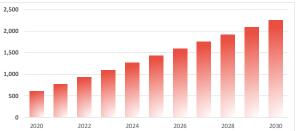


INVESTMENT CASE (2019)

*Upper middle income







■ Retinoblastoma ■ Wilms tumour

Other childhood cancer

DOMINICAN REPUBLIC

Availability of population-based cancer	2019	Registration activity	WORKFORCE		
egistry (PBCR)** Quality of mortality registration***	2007-2016	Low	"per 10,000 cancer patients Available staff in Ministry of Health who dedicates significant proportion of their	2019	ye
, , , , , , , , , , , , , , , , , , , ,			time to cancer		
of external beam radiotherapy ohoton, electron) ^a	2019	11.7	# of radiation oncologist ^a # of medical physicist ^a	2019 2019	n/: 5.0
of mammographs ^a	2020	97.8	# of surgeons ^a	n/a	n/a
of CT scanners ^a	2020	78.4	# of radiologist ^a	2019	77.8
of MRI scanners ^a	2020	n/a	# of nuclear medicine physician ^a	2019	7.:
of PET or PET/CT scanners ^a	2020	2.8	# of medical & pathology lab scientists ^a	n/a	n/a
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	0.6
ICCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s
IPOWER measures fully implemented and chieved	2018	0	Pathology services	2019	generally availabl
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally no availabl
alliative care included in their operational, ntegrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally no available
of treatment services (surgery, adiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	7:
reast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day		
reast cancer screening program: Starting ge, target population	2019	35			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
IPV vaccination programme coverage	2018	5.7	Annual cancer cases (0-14 years old)	2020	43
ervical cancer screening	2019	yes	Early detection programme/guidelines	2019	n
creening programme type	2019	opportunistic	Defined referral system	2019	n
creening programme method	2019	PAP smear	A		
creening participation rates	2019	70% or more	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	yes			
Defined referral system	2019	yes			lymphoid leukaemia
	2023	,	121	■ Hodgk	rin lymphoma
				■ Burkit	t lymphoma
			241	CNS, I	ow grade tumours

^{**}The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry
***The mortality estimates for this country have a high degree of uncertainty because they are not based on any national NCD mortality data

ALGERIA

BURDEN OF CANCER

Total population (2019)

43,053,054

Total # cancer cases (2018) **53,076**

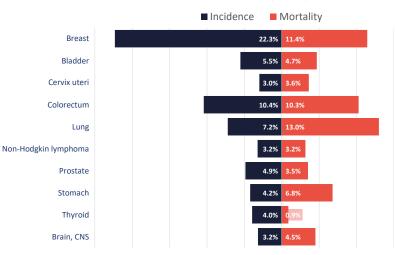
Total # cancer deaths (2018)
29,453

Premature deaths from NCDs (2016) 50,051

Cancer as % of NCD premature deaths (2016)

32.0%

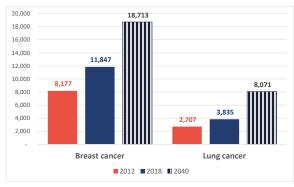
Most common cancer cases (2018)



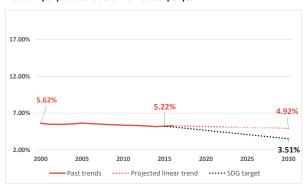


TRENDS

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

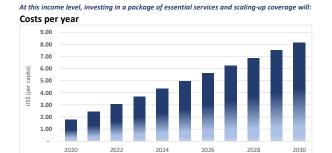


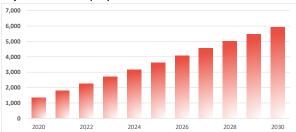
Probability of premature death from cancer per year



INVESTMENT CASE (2019)

*Upper middle income





Other childhood cancer



Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
egistry (PBCR)**	2013	riigii quanty i ben	° per 10,000 cancer patients Available staff in Ministry of Health who		
uality of mortality registration***	2007-2016	No coverage	dedicates significant proportion of their time to cancer	2019	yes
of external beam radiotherapy	2019	7.0	# of radiation oncologist ^a	2019	n/a
photon,electron) ^a	2023		# of medical physicist ^a	2019	18.8
of mammographs ^a	2020	52.9	# of surgeons ^a	2013	603.7
of CT scanners ^a	2020	108.1	# of radiologist ^a	2019	263.
of MRI scanners ^a	2020	28.3	# of nuclear medicine physician ^a	2019	20.
of PET or PET/CT scanners ^a	2020	1.1	# of medical & pathology lab scientists ^a	2007	n/a
ORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	2.8
ICCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	1 cancer(s
IPOWER measures fully implemented and chieved	2018	0	Pathology services	2019	generally available
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally availabl
alliative care included in their operational, stegrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally no available
of treatment services (surgery, adiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	4:
reast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per n	niliion inhahitants	ner dav
reast cancer screening program: Starting ge, target population	2019	40	,,,		, ,
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
PV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	264
ervical cancer screening	2019	no	Early detection programme/guidelines	2019	ne
creening programme type	2019	n/a	Defined referral system	2019	ne
creening programme method	2019	n/a			
creening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	no			
. , , , , , , , , , , , , , , , , , , ,			382	■ Acute	lymphoid leukaemia
efined referral system	2019	yes	100 4	■ Hodgk	kin lymphoma
			103		t lymphoma
			1751	■ CNS, I	ow grade tumours
			169	■ Retino	bblastoma
				■ Wilms	tumour

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

■ Mortality

ECUADOR

BURDEN OF CANCER



17,373,657

Total # cancer cases (2018)
28,058

Total # cancer deaths (2018)
14,559

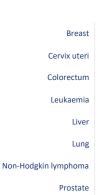
Premature deaths from NCDs (2016) 21,491

Cancer as % of NCD premature deaths (2016)

29.4%

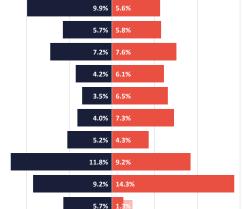
Most common cancer cases (2018)

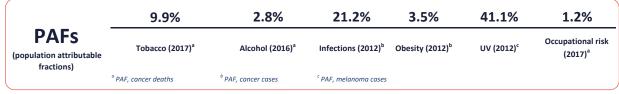
■ Incidence



Stomach

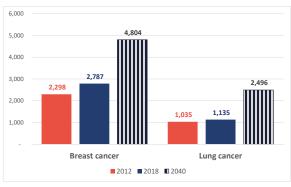
Thyroid



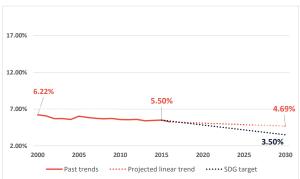


TRENDS

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

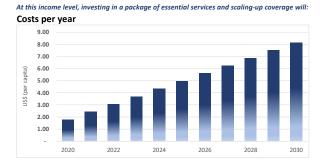


Probability of premature death from cancer per year

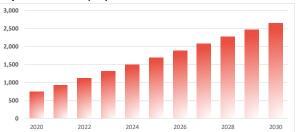


INVESTMENT CASE (2019)

*Upper middle income







yes n/a

1946.3 154.0 3.6 n/a

ECUADOR

HEALTH SYSTEM CAPACITY

per 10,000 cancer patients					
Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
registry (PBCR)**			^o per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	Medium	dedicates significant proportion of their	2019	
			time to cancer		
# of external beam radiotherapy	2019	7.8	# of radiation oncologist ^a	2019	
photon,electron) ^a	2013	7.0	# of medical physicist ^a	2019	
# of mammographs ^a	2020	10.7	# of surgeons ^a	2014	1
# of CT scanners ^a	2020	15.0	# of radiologist ^a	2019	
# of MRI scanners ^a	2020	7.1	# of nuclear medicine physician ^a	2019	
# of PET or PET/CT scanners ^a	2020	1.1	# of medical & pathology lab scientists a	2015	

FORMULATING RESPONSE

Integrated NCD plan	2019	not in effect	# Public cancer centres per 10,000 ca patients
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelin 4 cancers (breast, cervix, colon, childh
MPOWER measures fully implemented and achieved	2018	2	Pathology services
Cancer management guidelines	2019	yes	Bone marrow transplantation capaci
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-D
Breast cancer screening program: Starting age, target population	2019	50	

cancer 2019 lines for 3 cancer(s) 2019 dhood) 2019 generally available generally not city 2019 available generally available 2019 81 2015-2017

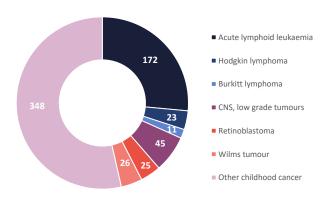
GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	90.8
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	<10%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	650
Early detection programme/guidelines	2019	no
Defined referral system	2019	yes

Annual cancer cases (0-14 years old)



S-DDD) per miliion inhabitants per day



BURDEN OF CANCER



100,388,076

Total # cancer cases (2018)
128,892

Total # cancer deaths (2018) 85,432

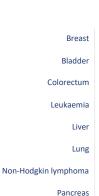
Premature deaths from NCDs (2016)

240,764

Cancer as % of NCD premature deaths (2016)

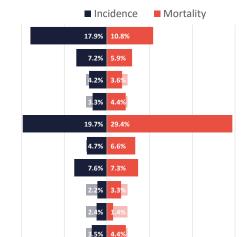
19.4%

Most common cancer cases (2018)



Prostate

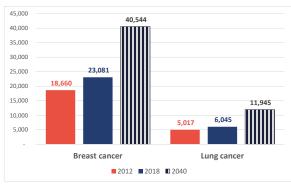
Brain, CNS



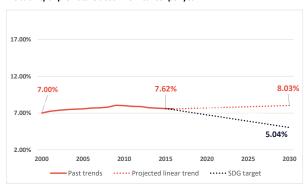
	18.8%	2.0%	21.4%	4.4%	0.0%	1.3%
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk (2017) ^a
,	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			

TRENDS

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

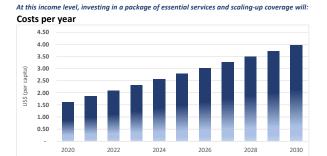


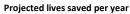
Probability of premature death from cancer per year

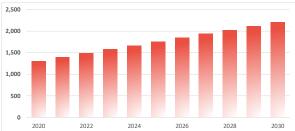


INVESTMENT CASE (2019)

*Lower middle income







Wilms tumour

Other childhood cancer

EGYPT

^o per 10,000 cancer patients Availability of population-based cancer	2019	PBCR	WORKFORCE			
egistry (PBCR)**	2015	rbek	" per 10,000 cancer patients Available staff in Ministry of Health who			
Quality of mortality registration***	2007-2016	Low	dedicates significant proportion of their time to cancer	2019	yes	
of external beam radiotherapy	2019	9.2	# of radiation oncologist ^a	2019	n/a	
photon,electron) ^a			# of medical physicist ^a	2019	15.	
of mammographs ^a	2020	26.4	# of surgeons ^a	2014	1859.4	
of CT scanners ^a	2020	54.3	# of radiologist ^a	2019	283.2	
of MRI scanners ^a	2020	15.1	# of nuclear medicine physician ^a	2019	8.1	
of PET or PET/CT scanners ^a	2020	1.5	# of medical & pathology lab scientists ^a	2017	164.6	
FORMULATING RESPONSE						
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	n/a	
ICCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	1 cancer(s	
/IPOWER measures fully implemented and chieved	2018	3	Pathology services	2019	generally available	
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available	
alliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available	
of treatment services (surgery, adiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	114	
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day			
reast cancer screening program: Starting ge, target population	2019	40				
GLOBAL INITIATIVES						
limination of Cervical Cancer			Global Initiative for Childhood Cancer			
IPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	6803	
ervical cancer screening	2019	no	Early detection programme/guidelines	2019	no	
creening programme type	2019	n/a	Defined referral system	2019	don't know	
creening programme method	2019	n/a	A			
creening participation rates	2019	n/a	Annual cancer cases (0-14 years old)			
arly detection programme/guidelines	2019	no		■ Acute	lymphoid leukaemia	
Defined referral system	2019	no	982	982		
			■ Hodgkin lymphoma ■ Burkitt lymphoma			
			264	■ CNS, le	ow grade tumours	
			4500	■ Retino	blastoma	
			.,500	- Rediic	, Sid Storrid	

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

ERITREA

BURDEN OF CANCER

3,144



2,350

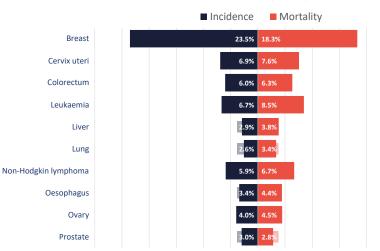
Premature deaths from NCDs (2016)

7,416

Cancer as % of NCD premature deaths (2016)

25.1%

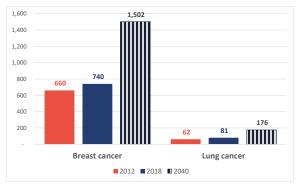
Most common cancer cases (2018)



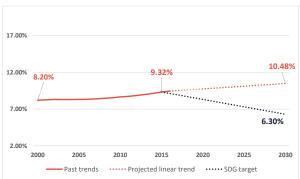


TRENDS

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

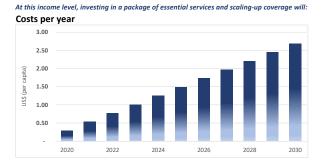


Probability of premature death from cancer per year

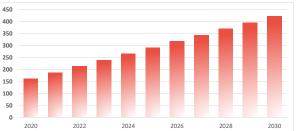


INVESTMENT CASE (2019)

*Low income







Other childhood cancer

ERITREA

HEALTH SYSTEM CAPACITY

° per 10,000 cancer patients Availability of population-based cancer	2010	No information	WORKFORCE		
egistry (PBCR)**	2019	No information	a per 10,000 cancer patients		
uality of mortality registration***	2007-2016	No coverage	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	ye
of external beam radiotherapy	2019	0.0	# of radiation oncologist ^a	2019	n/a
photon, electron) ^a	2019	0.0	# of medical physicist ^a	2019	3.
of mammographs ^a	2020	12.7	# of surgeons ^a	n/a	n/
of CT scanners ^a	2020	6.4	# of radiologist ^a	2019	n/
of MRI scanners ^a	2020	3.2	# of nuclear medicine physician ^a	2019	0.
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2004	54.
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	n/a
ICCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally availabl
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally no availabl
alliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally no availabl
of treatment services (surgery, adiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	
Breast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per mil.	iion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	n/a			
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
IPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	19
Cervical cancer screening	2019	no	Early detection programme/guidelines	2019	n
creening programme type	2019	n/a	Defined referral system	2019	n
creening programme method	2019	n/a			
creening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	no			
soft and referred evelors	2040		25	■ Acute	lymphoid leukaemia
Defined referral system	2019	yes	8	■ Hodgk	rin lymphoma
			11	■ Burkit	t lymphoma
			6	CNS, I	ow grade tumours
			125	■ Retino	bblastoma
				Wilms	tumour

^{**}The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry
***The mortality estimates for this country have a high degree of uncertainty because they are not based on any national NCD mortality data



BURDEN OF CANCER

Total population (2019)

46,736,782

Total # cancer cases (2018)

270,363

Total # cancer deaths (2018)
113,584

Premature deaths from NCDs (2016)

71,599

Cancer as % of NCD premature deaths (2016)

54.4%

Most common cancer cases (2018)

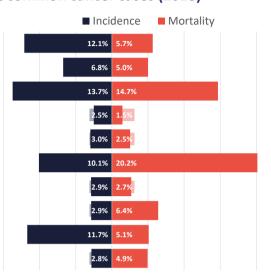
Breast Bladder Colorectum

Corpus uteri Kidney

Lung
Non-Hodgkin lymphoma

Pancreas Prostate

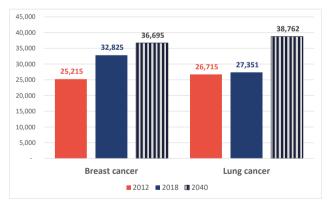
Stomach



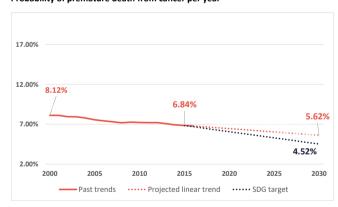


TRENDS

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



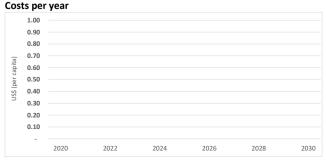
Probability of premature death from cancer per year

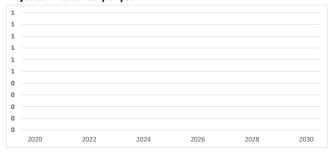


INVESTMENT CASE (2019)

*High income

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







HEALTH SYSTEM CAPACITY

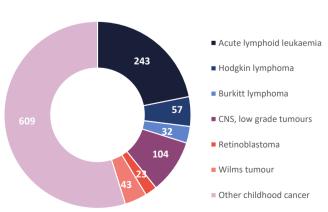
Early detection programme/guidelines

Defined referral system

2019

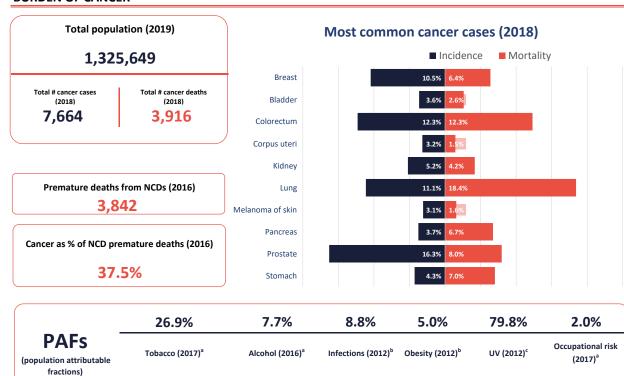
2019

^a per 10,000 cancer patients					
Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR			
Quality of mortality registration***	2007-2016	High	°per 10,000 cancer patients Available staff in Ministry of Health who dedicates significant proportion of their	2019	yes
# of external beam radiotherapy			time to cancer # of radiation oncologist ^a	2019	25.9
(photon,electron) ^a	2019	10.0	# of medical physicist ^a	2019	31.0
# of mammographs ^a	2020	28.1	# of surgeons ^a	2014	394.8
# of CT scanners ^a	2020	40.4	# of radiologist ^a	2019	224.7
# of MRI scanners ^a	2020	33.5	# of nuclear medicine physician ^a	2019	n/a
# of PET or PET/CT scanners ^a	2020	3.0	# of medical & pathology lab scientists ^a	n/a	n/a
FORMULATING RESPONSE					
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	n/a
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
MPOWER measures fully implemented and achieved	2018	4	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	11391
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per	miliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	50			
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	68.5	Annual cancer cases (0-14 years old)	2020	1111
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	don't know
Screening programme type	2019	organised	Defined referral system	2019	yes
Screening programme method	2019	HPV test			
Screening participation rates	2019	>50% and <70%	Annual cancer cases (0-14 years old)		



ESTONIA

BURDEN OF CANCER

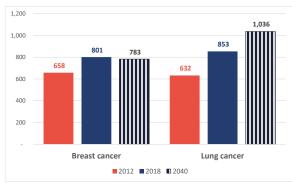


^b PAF, cancer cases

TRENDS

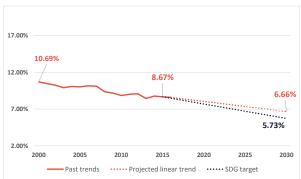
Estimated past and future trends in total cases per year (breast and lung)

^a PAF, cancer deaths



Probability of premature death from cancer per year

^c PAF, melanoma cases

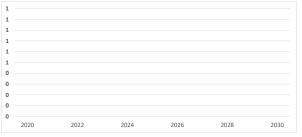


INVESTMENT CASE (2019)

*High income







ESTONIA

per 10,000 cancer patients					
Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
registry (PBCR)**		0 4 7 7	^e per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	High	dedicates significant proportion of their time to cancer	2019	no
of external beam radiotherapy			# of radiation oncologist ^a	2019	18.3
photon,electron) ^a	2019	7.8	# of medical physicist ^a	2019	14.4
f of mammographs ^a	2020	19.6	# of surgeons ^a	2014	246.
f of CT scanners ^a	2020	30.0	# of radiologist ^a	2019	200.
f of MRI scanners ^a	2020	23.5	# of nuclear medicine physician ^a	2019	10.4
of PET or PET/CT scanners ^a	2020	3.9	# of medical & pathology lab scientists ^a	n/a	n/a
FORMULATING RESPONSE					
PORMULATING RESPONSE Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	2.6
ntegrated NCD plan	2019	operational n/a	• •	2019	
			patients Early detection programme/ guidelines for		2.6 3 cancer(s generally available
ntegrated NCD plan NCCP (including cancer types) MPOWER measures fully implemented and	2019	n/a	patients Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s

of treatment services (surgery,

Breast cancer screening program

Breast cancer screening program: Starting

radiotherapy, chemotherapy)

age, target population

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	44.4
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	>50% and <70%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

2019

2019

2019

50

Global Initiative for Childhood Cancer

Availability of opioids* for pain

management

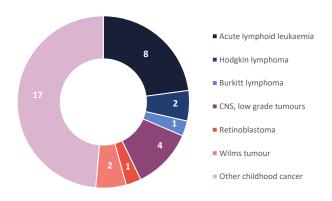
Annual cancer cases (0-14 years old)	2020	35
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

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

2015-2017

887

Annual cancer cases (0-14 years old)



GLOBAL INITIATIVES

ETHIOPIA

BURDEN OF CANCER



112,078,727

Total # cancer cases (2018) **67,573**

Total # cancer deaths (2018)
47,954

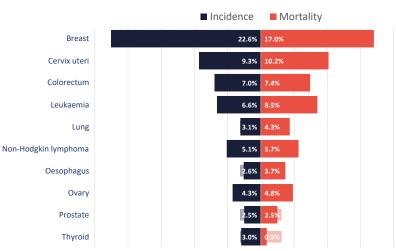
Premature deaths from NCDs (2016)

119,622

Cancer as % of NCD premature deaths (2016)

30.5%

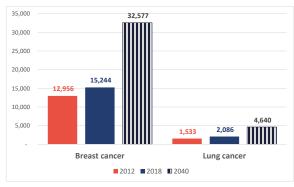
Most common cancer cases (2018)



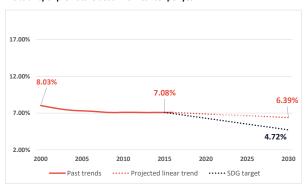


TRENDS

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

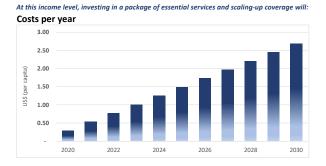


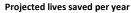
Probability of premature death from cancer per year



INVESTMENT CASE (2019)

*Low income







Wilms tumour

Other childhood cancer

ETHIOPIA

^o per 10,000 cancer patients Availability of population-based cancer	2010	DD CD	WORKFORCE		
egistry (PBCR)**	2019	PBCR	° per 10,000 cancer patients		
quality of mortality registration***	2007-2016	No coverage	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	ye
of external beam radiotherapy	2019	0.1	# of radiation oncologist ^a	2019	n/a
ohoton,electron) ^a	2019	0.1	# of medical physicist ^a	2019	0.0
of mammographs ^a	2020	n/a	# of surgeons ^a	2014	51.0
of CT scanners ^a	2020	5.0	# of radiologist ^a	2019	23.7
of MRI scanners ^a	2020	1.0	# of nuclear medicine physician ^a	2019	0.:
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2009	n/a
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	0.1
ICCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally no availabl
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally no available
alliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally no available
of treatment services (surgery, adiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	2
reast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per i	miliion inhabitants per	day
reast cancer screening program: Starting ge, target population	2019	40			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
IPV vaccination programme coverage	2018	0	Annual cancer cases (0-14 years old)	2020	617
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	ye
creening programme type	2019	opportunistic	Defined referral system	2019	ye
creening programme method	2019	visual inspection	Annual concess (0.14 years old)		
creening participation rates	2019	<10%	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	yes			
			780	■ Acute lyr	nphoid leukaemia
efined referral system	2019	yes	259	■ Hodgkin	lymphoma
			343	■ Burkitt ly	mphoma
			235	■ CNS, low	grade tumours
			3944 431	■ Retinobla	astoma

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



BURDEN OF CANCER



5,532,159

Total # cancer cases (2018)

33,271

Total # cancer deaths (2018)
12,749

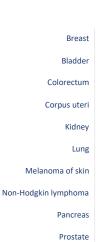
Premature deaths from NCDs (2016)

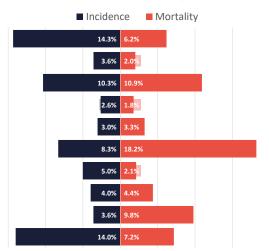
11,056

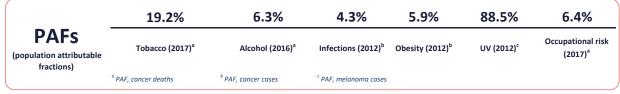
Cancer as % of NCD premature deaths (2016)

38.7%

Most common cancer cases (2018)

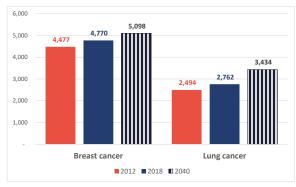




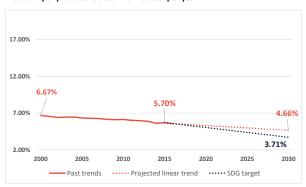


TRENDS

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



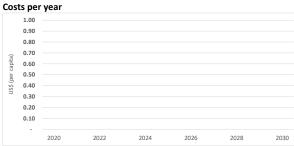
Probability of premature death from cancer per year

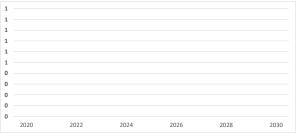


INVESTMENT CASE (2019)

*High income

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





■ CNS, low grade tumours

Other childhood cancer

■ Retinoblastoma ■ Wilms tumour



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Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
registry (PBCR)**	2013	riigii quanty i bek	^a per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	High	dedicates significant proportion of their time to cancer	2019	yes
# of external beam radiotherapy (photon, electron) a	2019	13.5	# of radiation oncologist ^a # of medical physicist ^a	2019 2019	180.3 54.1
# of mammographs ^a	2020	51.7	# of surgeons ^a	2014	1226.6
# of CT scanners ^a	2020	40.0	# of radiologist ^a	2019	215.6
# of MRI scanners ^a	2020	44.8	# of nuclear medicine physician ^a	2019	90.2
# of PET or PET/CT scanners ^a	2020	4.2	# of medical & pathology lab scientists ^a	2002	n/a
FORMULATING RESPONSE					
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	6.9
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	5519
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per i	miliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	50			
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	61.9	Annual cancer cases (0-14 years old)	2020	142
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	no
Screening programme type	2019	organised	Defined referral system	2019	ye
Screening programme method	2019	PAP smear	Annual cancer cases (0-14 years old)		
Screening participation rates	2019	70% or more	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	yes		■ Acute	lymphoid leukaemia
Defined referral system	2019	yes	32		in lymphoma
				■ Burkit	



BURDEN OF CANCER



889,955

Total # cancer cases (2018)
1,519

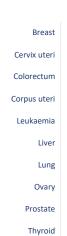
Total # cancer deaths (2018)

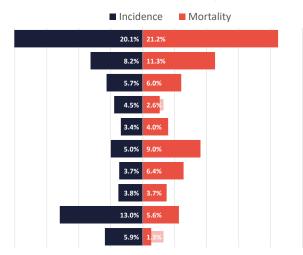
Premature deaths from NCDs (2016) 2,994

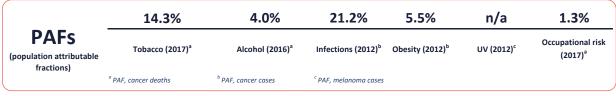
Cancer as % of NCD premature deaths (2016)

13.5%

Most common cancer cases (2018)

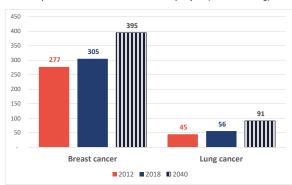




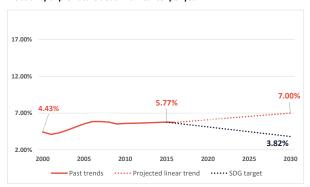


TRENDS

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

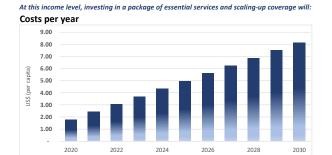


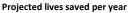
Probability of premature death from cancer per year

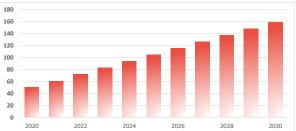


INVESTMENT CASE (2019)

*Upper middle income









HEALTH SYSTEM CAPACITY

contradition of many last and beautiful and an arm						
vailability of population-based cancer	2019	PBCR	WORKFORCE			
egistry (PBCR)**			^o per 10,000 cancer patients Available staff in Ministry of Health who			
uality of mortality registration***	2007-2016	Medium	dedicates significant proportion of their	2019	yes	
			time to cancer			
of external beam radiotherapy	2019	0.0	# of radiation oncologist ^a	2019	n/a	
oton,electron) ^a	# of medical physicist ^a	2019	n/a			
of mammographs ^a	2020	171.2	# of surgeons ^a	2014	105.3	
of CT scanners ^a	2020	19.7	# of radiologist ^a	2019	n/a	
of MRI scanners ^a	2020	6.6	# of nuclear medicine physician ^a	2019	0.0	
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists a	2015	1165.2	

Integrated NCD plan	2019	operational
NCCP (including cancer types)	2019	operational
MPOWER measures fully implemented and achieved	2018	1
Cancer management guidelines	2019	no
Palliative care included in their operational, integrated NCD plan	2019	no
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	2
Breast cancer screening program	2019	no
Breast cancer screening program: Starting age, target population	2019	n/a

# Public cancer centres per 10,000 cancer patients	2019	19.7
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	1 cancer(s)
Pathology services	2019	generally available
Bone marrow transplantation capacity	2019	generally not available
Palliative care availability: community/home-based care	2019	generally available
Availability of opioids* for pain management	2015-2017	121

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

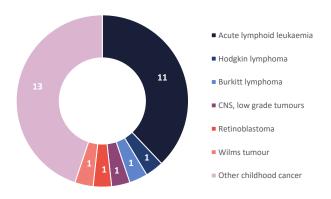
GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	46.3
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	10%-50%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	29
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Annual cancer cases (0-14 years old)



FRANCE

BURDEN OF CANCER



65,129,731

Total # cancer cases (2018) 455,618

Total # cancer deaths (2018)
182,372

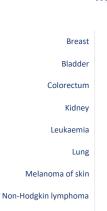
Premature deaths from NCDs (2016)

112,034

Cancer as % of NCD premature deaths (2016)

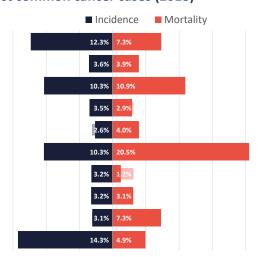
57.8%

Most common cancer cases (2018)



Pancreas

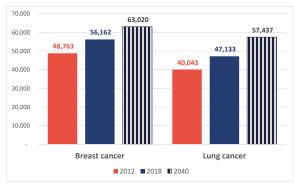
Prostate



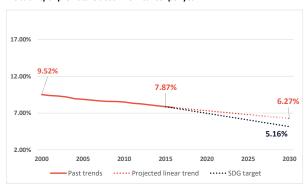


TRENDS

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



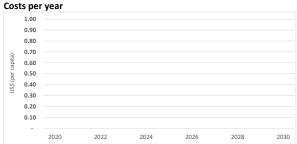
Probability of premature death from cancer per year

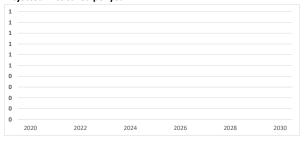


INVESTMENT CASE (2019)

*High income

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

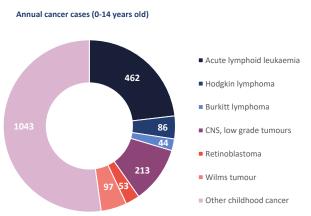




FRANCE

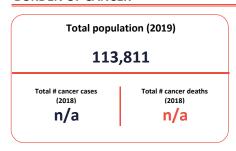
Availability of population board concern			WORKEODCE		
Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR	WORKFORCE **per 10,000 cancer patients		
0	2007 2046		Available staff in Ministry of Health who	2010	
Quality of mortality registration***	2007-2016	High	dedicates significant proportion of their time to cancer	2019	ye
# of external beam radiotherapy	2019	11.1	# of radiation oncologist ^a	2019	15.
(photon, electron) ^a	2013	11.1	# of medical physicist ^a	2019	11.
# of mammographs ^a	2020	10.8	# of surgeons ^a	2014	486.
# of CT scanners ^a	2020	29.8	# of radiologist ^a	2019	220.
of MRI scanners ^a	2020	20.9	# of nuclear medicine physician ^a	2019	13.
# of PET or PET/CT scanners ^a	2020	3.1	# of medical & pathology lab scientists ^a	n/a	n/a
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	0.4
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally availabl
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally availabl
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally no availabl
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	679
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per r	miliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	50			
GLOBAL INITIATIVES					
			Global Initiative for Childhood Cancer		
Elimination of Cervical Cancer					
	2018	0	Annual cancer cases (0-14 years old)	2020	199
HPV vaccination programme coverage	2018 2019	0 yes	Annual cancer cases (0-14 years old) Early detection programme/guidelines	2020 2019	199 ne
HPV vaccination programme coverage Cervical cancer screening					n
Elimination of Cervical Cancer HPV vaccination programme coverage Cervical cancer screening Screening programme type Screening programme method	2019	yes	Early detection programme/guidelines	2019	

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



MICRONESIA, FEDERATED STATES OF

BURDEN OF CANCER

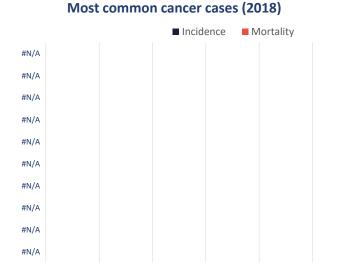


Premature deaths from NCDs (2016)

221

Cancer as % of NCD premature deaths (2016)

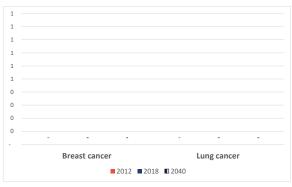
21.1%



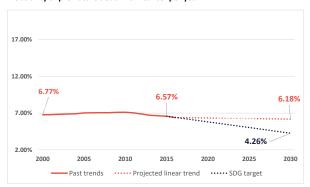


TRENDS

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

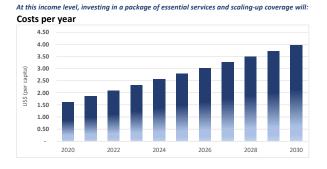


Probability of premature death from cancer per year



INVESTMENT CASE (2019)

*Lower middle income





MICRONESIA, FEDERATED STATES OF

HEALTH SYSTEM CAPACITY

* per 10,000 cancer patients Availability of population-based cancer	2019	PBCR	WORKFORCE		
egistry (PBCR)** Quality of mortality registration***	2007-2016	No coverage	[®] per 10,000 cancer patients Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	ує
of external beam radiotherapy			# of radiation oncologist ^a	2019	n/
photon,electron) ^a	2019	n/a	# of medical physicist ^a	2019	n/
of mammographs ^a	2020	n/a	# of surgeons ^a	2014	n/
of CT scanners ^a	2020	n/a	# of radiologist ^a	2019	n/
f of MRI scanners ^a	2020	n/a	# of nuclear medicine physician ^a	2019	n/
of PET or PET/CT scanners ^a	2020	n/a	# of medical & pathology lab scientists ^a	2008	n/
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	n/a
ICCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(
/IPOWER measures fully implemented and chieved	2018	0	Pathology services	2019	generally no availabl
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally no availabl
alliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally no availabl
of treatment services (surgery, adiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	3
reast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per	miliion inhabitants per	day
reast cancer screening program: Starting ge, target population	2019	20			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
PV vaccination programme coverage	2018	60	Annual cancer cases (0-14 years old)	2020	n/
ervical cancer screening	2019	yes	Early detection programme/guidelines	2019	n
creening programme type	2019	opportunistic	Defined referral system	2019	n
creening programme method	2019	visual inspection			
creening participation rates	2019	10%-50%	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	yes		■ Acute lyr	nphoid leukaemia
efined referral system	2019	no		■ Hodgkin	lymphoma
				■ Burkitt ly	mphoma
				CNS, low	grade tumours
				■ Retinobla	astoma
				■ Wilms tu	mour
				Other ch	ildhood cancer

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

GABON

BURDEN OF CANCER



2,172,578

Total # cancer cases (2018)
1,677

Total # cancer deaths (2018)
1,097

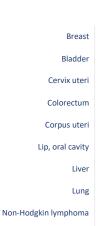
Premature deaths from NCDs (2016)

2,114

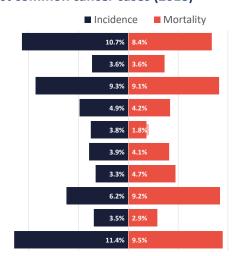
Cancer as % of NCD premature deaths (2016)

23.4%

Most common cancer cases (2018)



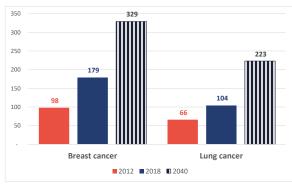
Prostate



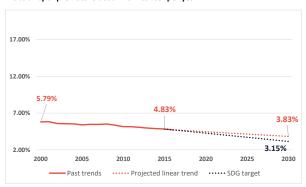
	13.3%	9.9%	21.6%	2.6%	40.9%	1.0%
PAFS (population attributable	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk (2017) ^a
fractions)	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			

TRENDS

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

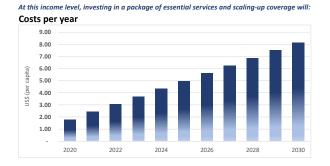


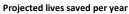
Probability of premature death from cancer per year

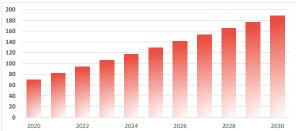


INVESTMENT CASE (2019)

*Upper middle income







GABON

HEALTH SYSTEM CAPACITY

per 10,000 cancer patients Availability of population-based cancer	2010		WORKFORCE		
registry (PBCR)**	2019	Registration activity	^a per 10,000 cancer patients		
quality of mortality registration***	2007-2016	No coverage	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	уе
of external beam radiotherapy	2019	11.9	# of radiation oncologist ^a	2019	n/
photon, electron) ^a	2013	11.5	# of medical physicist ^a	2019	n/
of mammographs ^a	2020	35.8	# of surgeons ^a	n/a	n/
of CT scanners ^a	2020	35.8	# of radiologist ^a	2019	n/
of MRI scanners ^a	2020	11.9	# of nuclear medicine physician ^a	2019	6.
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2016	n/
ORMULATING RESPONSE					
stegrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients	2019	6.0
CCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s
1POWER measures fully implemented and chieved	2018	0	Pathology services	2019	generally availab
ancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally no availab
alliative care included in their operational, itegrated NCD plan	2019	n/a	Palliative care availability: community/home-based care	2019	generally no availab
of treatment services (surgery, adiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	
reast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per miliion inhabitants per day		
reast cancer screening program: Starting ge, target population	2019	n/a			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
PV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	10
ervical cancer screening	2019	no	Early detection programme/guidelines	2019	don't kno
creening programme type	2019	n/a	Defined referral system	2019	don't kno
creening programme method	2019	n/a			
creening participation rates	2019	7/2	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	n/a no			
arry detection programme, galacimes	2013		10	■ Acute	lymphoid leukaemia
efined referral system	2019	yes	7	■ Hodgk	in lymphoma
			3		t lymphoma
			4		
			6		ow grade tumours
			70		tumour
					childhood cancer
				= 001161	cimuniood cancel

^{**}The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry
***The mortality estimates for this country have a high degree of uncertainty because they are not based on any national NCD mortality data

UNITED KINGDOM

BURDEN OF CANCER



67,530,161

Total # cancer cases (2018)
446,942

Total # cancer deaths (2018)
178,473

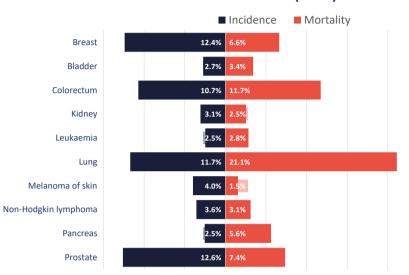
Premature deaths from NCDs (2016)

112,746

Cancer as % of NCD premature deaths (2016)

47.1%

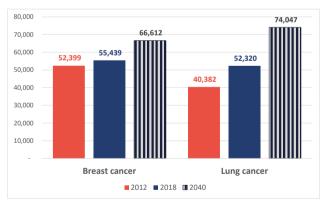
Most common cancer cases (2018)



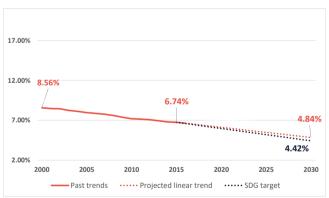


TRENDS

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



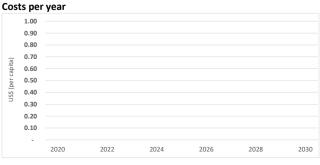
Probability of premature death from cancer per year

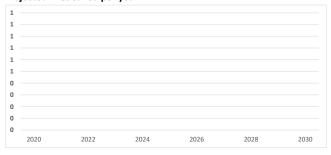


INVESTMENT CASE (2019)

*High income

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





RetinoblastomaWilms tumour

Other childhood cancer

UNITED KINGDOM

HEALTH SYSTEM CAPACITY

^a per 10,000 cancer patients					
Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR	WORKFORCE		
registry (FDCR)			^o per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	High	dedicates significant proportion of their time to cancer	2019	yes
# of external beam radiotherapy	2019	7.8	# of radiation oncologist ^a	2019	16.0
(photon,electron) ^a	2019	7.0	# of medical physicist ^a	2019	38.0
# of mammographs ^a	2020	14.2	# of surgeons ^a	2012	485.2
# of CT scanners ^a	2020	21.6	# of radiologist ^a	2019	81.8
# of MRI scanners ^a	2020	21.6	# of nuclear medicine physician ^a	2019	2.0
# of PET or PET/CT scanners ^a	2020	0.7	# of medical & pathology lab scientists ^a	n/a	n/a
FORMULATING RESPONSE					
Integrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients	2019	0.4
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s)
MPOWER measures fully implemented and achieved	2018	3	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	7723
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per i	miliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	50			
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	80.6	Annual cancer cases (0-14 years old)	2020	1932
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	yes
Screening programme type	2019	organised	Defined referral system	2019	yes
Screening programme method	2019	PAP smear	Annual cancer cases (0-14 years old)		
Screening participation rates	2019	70% or more	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	yes		■ A cuto	humphoid loukoomia
Defined referral system	2019	yes	441		lymphoid leukaemia
					in lymphoma
			1003		t lymphoma
			1003 86	■ CNS, I	ow grade tumours

GEORGIA

BURDEN OF CANCER

Total population (2019)

3,996,762

Total # cancer cases (2018) **9,381**

Total # cancer deaths (2018)
6,114

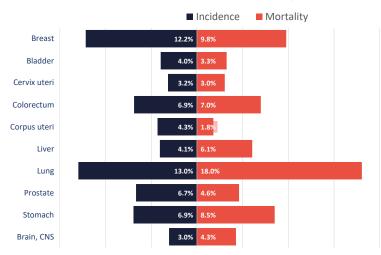
Premature deaths from NCDs (2016)

14,966

Cancer as % of NCD premature deaths (2016)

25.8%

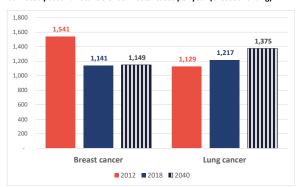
Most common cancer cases (2018)



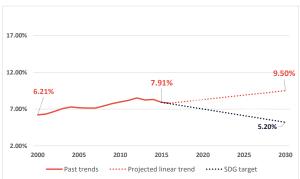
	24.5%	6.4%	12.5%	3.3%	53.7%	3.0%
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk (2017) ^a
	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			

TRENDS

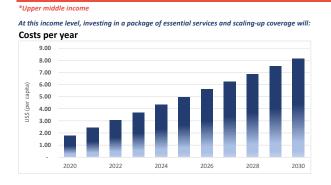
Estimated past and future trends in total cases per year (breast and lung)

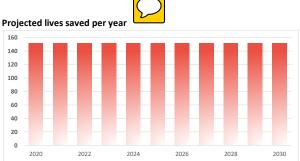


Probability of premature death from cancer per year



INVESTMENT CASE (2019)





GEORGIA

HEALTH SYSTEM CAPACITY

per 10,000 cancer patients					
Availability of population-based cancer	2019	PBCR	WORKFORCE		
egistry (PBCR)**			° per 10,000 cancer patients Available staff in Ministry of Health who		
uality of mortality registration***	2007-2016	Low	dedicates significant proportion of their	2019	yes
			time to cancer		
of external beam radiotherapy	2019	17.1	# of radiation oncologist ^a	2019	n/a
photon, electron) a	2019	17.1	# of medical physicist ^a	2019	19.2
of mammographs ^a	2020	29.8	# of surgeons ^a	n/a	n/a
of CT scanners ^a	2020	91.7	# of radiologist ^a	2019	1502.0
of MRI scanners ^a	2020	29.8	# of nuclear medicine physician ^a	2019	n/a
of PET or PET/CT scanners ^a	2020	1.1	# of medical & pathology lab scientists ^a	n/a	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	-
NCCP (including cancer types)	2019	under development	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	1 cancer(s)
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	146
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) pe	miliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	40			

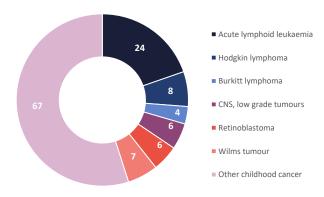
GLOBAL INITIATIVES

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

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	122
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Annual cancer cases (0-14 years old)



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



BURDEN OF CANCER

Total population (2019)

30,417,858

Total # cancer cases (2018)
22,823

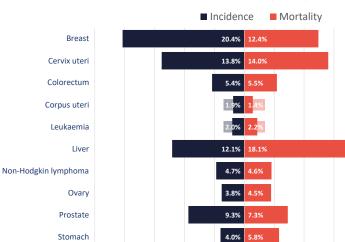
Total # cancer deaths (2018)
15,089

Premature deaths from NCDs (2016) 41,410

Cancer as % of NCD premature deaths (2016)

17.9%

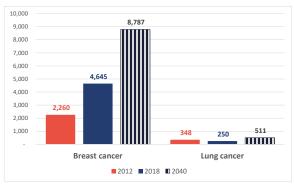
Most common cancer cases (2018)



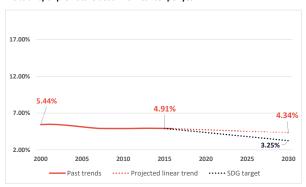
	6.2%	6.0%	34.4%	1.3%	17.0%	0.7%
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk
Hactions	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			

TRENDS

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

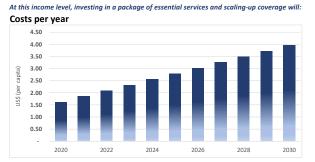


Probability of premature death from cancer per year

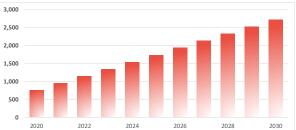


INVESTMENT CASE (2019)

*Lower middle income







■ Burkitt lymphoma

RetinoblastomaWilms tumour

■ CNS, low grade tumours

Other childhood cancer



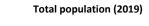
vailability of population-based cancer	2019	PBCR	WORKFORCE		
egistry (PBCR)**	2019	PBCR	a per 10,000 cancer patients		
Quality of mortality registration***	2007-2016	No coverage	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	n
of external beam radiotherapy	2019	1.8	# of radiation oncologist ^a	2019	n/
photon, electron) ^a	2019	1.0	# of medical physicist ^a	2019	25.
of mammographs ^a	2020	10.1	# of surgeons ^a	n/a	n/
of CT scanners ^a	2020	16.6	# of radiologist ^a	2019	39.
of MRI scanners ^a	2020	0.9	# of nuclear medicine physician ^a	2019	1.
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2013	n/
ORMULATING RESPONSE					
ntegrated NCD plan	2019	under development	# Public cancer centres per 10,000 cancer patients	2019	0.9
ICCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(
IPOWER measures fully implemented and chieved	2018	1	Pathology services	2019	generally no availab
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally no availab
alliative care included in their operational, ntegrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally no availab
of treatment services (surgery, adiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	2
reast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day		
reast cancer screening program: Starting ge, target population	2019	n/a			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
IPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	152
ervical cancer screening	2019	no	Early detection programme/guidelines	2019	n
creening programme type	2019	n/a	Defined referral system	2019	n
creening programme method	2019	n/a	Americal conservations (O.14) upper stable		
creening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	no			
			170 Acute lym		1 111 1 1

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

■ Mortality

GUINEA

BURDEN OF CANCER



12,771,246

Total # cancer cases (2018) **787**

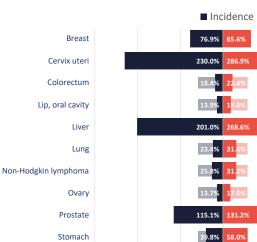
Total # cancer deaths (2018) 526

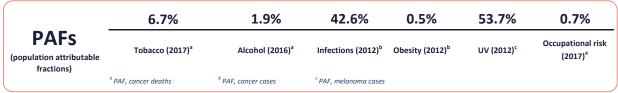
Premature deaths from NCDs (2016) 18,279

Cancer as % of NCD premature deaths (2016)

16.6%

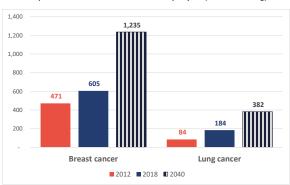
Most common cancer cases (2018)



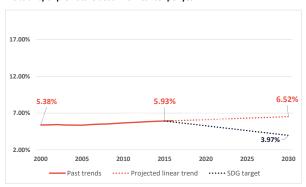


TRENDS

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

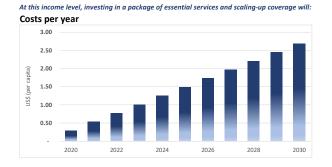


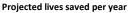
Probability of premature death from cancer per year

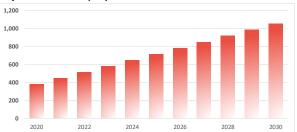


INVESTMENT CASE (2019)

*Low income







Other childhood cancer

GUINEA

per 10,000 cancer patients Availability of population-based cancer	2010	DDCD	WORKFORCE		
egistry (PBCR)**	2019	PBCR	^a per 10,000 cancer patients		
uality of mortality registration***	2007-2016	No coverage	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	ye
of external beam radiotherapy	2010	,	# of radiation oncologist ^a	2019	n/
hoton,electron) ^a	2019	n/a	# of medical physicist ^a	2019	n/
of mammographs ^a	2020	25.4	# of surgeons ^a	n/a	n/
of CT scanners ^a	2020	50.8	# of radiologist ^a	2019	0.
of MRI scanners ^a	2020	25.4	# of nuclear medicine physician ^a	2019	n/
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2016	n/
FORMULATING RESPONSE					
ntegrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients	2019	25.4
CCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s
IPOWER measures fully implemented and chieved	2018	1	Pathology services	2019	generally availabl
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally no availabl
alliative care included in their operational, tegrated NCD plan	2019	n/a	Palliative care availability: community/home-based care	2019	generally no availabl
of treatment services (surgery, diotherapy, chemotherapy)	2019	2	Availability of opioids* for pain management	2015-2017	
reast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per mili	ion inhabitants	per day
reast cancer screening program: Starting ge, target population	2019	25			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
PV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	74
ervical cancer screening	2019	yes	Early detection programme/guidelines	2019	n
creening programme type	2019	opportunistic	Defined referral system	2019	n
creening programme method	2019	visual inspection			
creening participation rates	2019	<10%	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	yes			
efined referral system	2019	was	83	■ Acute	lymphoid leukaemia
enneu reierrai system	2019	yes	39	■ Hodgk	in lymphoma
			52	■ Burkit	t lymphoma
			452	■ CNS, I	ow grade tumours
			452 37 59	■ Retino	blastoma
				Wilms	tumour

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

GAMBIA

BURDEN OF CANCER



2,347,696

Total # cancer cases (2018) **705**

Total # cancer deaths (2018) **610**

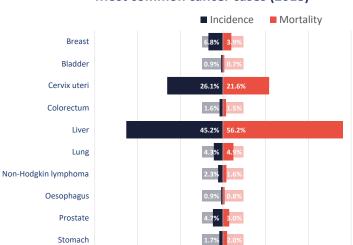
Premature deaths from NCDs (2016)

2,140

Cancer as % of NCD premature deaths (2016)

15.1%

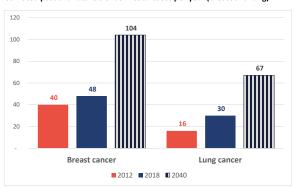
Most common cancer cases (2018)



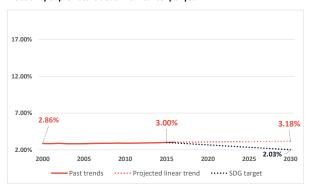
	n/a	6.6%	51.3%	0.6%	n/a	0.6%
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk (2017) ^a
indecions)	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			,

TRENDS

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

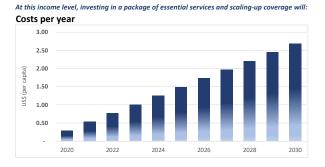


Probability of premature death from cancer per year

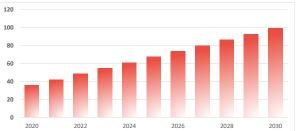


INVESTMENT CASE (2019)

*Low income







Wilms tumour

Other childhood cancer

GAMBIA

Availability of population-based cancer	2019	PBCR	WORKFORCE		
egistry (PBCR)** Quality of mortality registration***	2007-2016	No coverage	°per 10,000 cancer patients Available staff in Ministry of Health who dedicates significant proportion of their	2019	ye
to Contain all the control of the transmission			time to cancer	2019	n/a
of external beam radiotherapy photon, electron) a	2019	0.0	# of radiation oncologist ^a # of medical physicist ^a	2019	n/:
of mammographs ^a	2020	14.2	# of surgeons ^a	2011	141.
of CT scanners ^a	2020	28.4	# of radiologist ^a	2019	0.
of MRI scanners ^a	2020	14.2	# of nuclear medicine physician ^a	2019	0.
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2015	156.
FORMULATING RESPONSE					
ntegrated NCD plan	2019	not in effect	# Public cancer centres per 10,000 cancer patients	2019	14.2
ICCP (including cancer types)	2019	under development	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s
MPOWER measures fully implemented and inchieved	2018	2	Pathology services	2019	generally no availabl
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally no availabl
alliative care included in their operational, ntegrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally no availabl
of treatment services (surgery, adiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	
Breast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per i	miliion inhabitants per	day
Breast cancer screening program: Starting lige, target population	2019	n/a			
	2019	n/a			
ge, target population	2019	n/a	Global Initiative for Childhood Cancer		
GLOBAL INITIATIVES	2019	n/a	Global Initiative for Childhood Cancer Annual cancer cases (0-14 years old)	2020	14
GLOBAL INITIATIVES				2020 2019	
GLOBAL INITIATIVES Elimination of Cervical Cancer IPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)		n
GLOBAL INITIATIVES Elimination of Cervical Cancer APV vaccination programme coverage Cervical cancer screening	2018 2019	n/a no	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system	2019	n
GLOBAL INITIATIVES Elimination of Cervical Cancer APV vaccination programme coverage Cervical cancer screening Coreening programme type	2018 2019 2019	n/a no n/a n/a	Annual cancer cases (0-14 years old) Early detection programme/guidelines	2019	n
GLOBAL INITIATIVES Climination of Cervical Cancer APV vaccination programme coverage Cervical cancer screening Coreening programme type Coreening programme method	2018 2019 2019 2019	n/a no n/a	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system	2019	14 ne
GLOBAL INITIATIVES Elimination of Cervical Cancer APV vaccination programme coverage Cervical cancer screening Coreening programme type Coreening programme method Coreening participation rates Carly detection programme/guidelines	2018 2019 2019 2019 2019 2019	n/a no n/a n/a n/a	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system	2019 2019	n
GLOBAL INITIATIVES Elimination of Cervical Cancer APV vaccination programme coverage Cervical cancer screening Coreening programme type Coreening programme method Coreening participation rates	2018 2019 2019 2019 2019	n/a no n/a n/a n/a	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system Annual cancer cases (0-14 years old)	2019 2019	n n nphoid leukaemia
GLOBAL INITIATIVES Elimination of Cervical Cancer APV vaccination programme coverage Cervical cancer screening Coreening programme type Coreening programme method Coreening participation rates Carly detection programme/guidelines	2018 2019 2019 2019 2019 2019	n/a no n/a n/a n/a	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system Annual cancer cases (0-14 years old)	2019 2019	n n nphoid leukaemia lymphoma
GLOBAL INITIATIVES Elimination of Cervical Cancer APV vaccination programme coverage Cervical cancer screening Coreening programme type Coreening programme method Coreening participation rates Carly detection programme/guidelines	2018 2019 2019 2019 2019 2019	n/a no n/a n/a n/a	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system Annual cancer cases (0-14 years old)	2019 2019 Acute lyr Hodgkin Burkitt ly	n n nphoid leukaemia lymphoma

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

GUINEA-BISSAU

BURDEN OF CANCER

Total population (2019)

1,920,917

Total # cancer cases (2018)
1,037

Total # cancer deaths (2018)
810

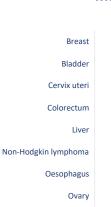
Premature deaths from NCDs (2016)

2,143

Cancer as % of NCD premature deaths (2016)

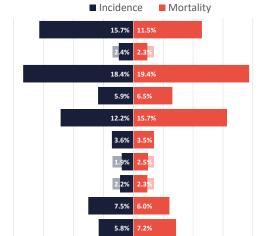
20.4%

Most common cancer cases (2018)



Prostate

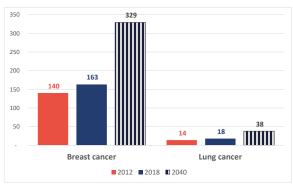
Stomach



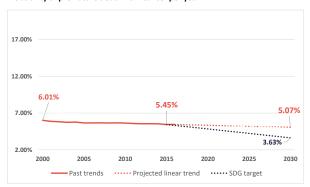


TRENDS

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

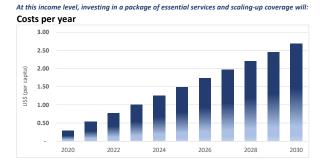


Probability of premature death from cancer per year

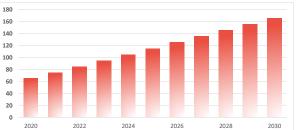


INVESTMENT CASE (2019)

*Low income







Other childhood cancer

GUINEA-BISSAU

per 10,000 cancer patients Availability of population-based cancer	2040		WORKFORCE		
egistry (PBCR)**	2019	No information	^a per 10,000 cancer patients		
uality of mortality registration***	2007-2016	No coverage	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	ye
of external beam radiotherapy	2010	0.0	# of radiation oncologist ^a	2019	n/
hoton,electron) ^a	2019	0.0	# of medical physicist ^a	2019	n/
of mammographs ^a	2020	0.0	# of surgeons ^a	n/a	n/
of CT scanners ^a	2020	0.0	# of radiologist ^a	2019	n/
of MRI scanners ^a	2020	0.0	# of nuclear medicine physician ^a	2019	n/
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2009	n/
ORMULATING RESPONSE					
ntegrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients	2019	-
ICCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s
IPOWER measures fully implemented and chieved	2018	0	Pathology services	2019	generally no availabl
ancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally no availabl
alliative care included in their operational, tegrated NCD plan	2019	n/a	Palliative care availability: community/home-based care	2019	generally no availabl
of treatment services (surgery, adiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	
reast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day		
reast cancer screening program: Starting ge, target population	2019	n/a			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
PV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	10
ervical cancer screening	2019	no	Early detection programme/guidelines	2019	n
creening programme type	2019	n/a	Defined referral system	2019	n
reening programme method	2019	n/a			
creening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	no			
office of meta-wal arrateous	2040		12	■ Acute lyn	nphoid leukaemia
efined referral system	2019	no	6	■ Hodgkin l	ymphoma
			8	■ Burkitt ly	mphoma
			66	CNS, low	grade tumours
			5	■ Retinobla	istoma
				■ Wilms tu	mour
				= Other chi	

^{**}The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry
***The mortality estimates for this country have a high degree of uncertainty because they are not based on any national NCD mortality data

EQUATORIAL GUINEA

BURDEN OF CANCER

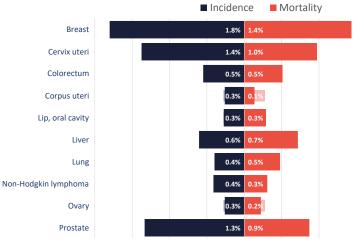


Premature deaths from NCDs (2016)
1,929

Cancer as % of NCD premature deaths (2016)

18.1%

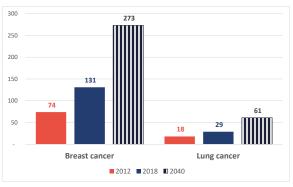
Most common cancer cases (2018)



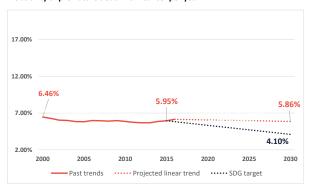


TRENDS

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

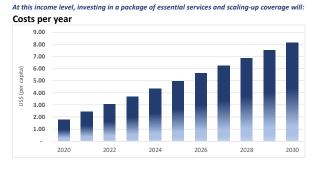


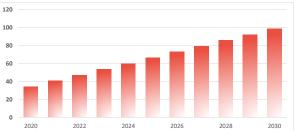
Probability of premature death from cancer per year



INVESTMENT CASE (2019)







EQUATORIAL GUINEA

HFΔ	J TH	SYS.	ГЕМ	CAP	ACI	TΥ

° per 10,000 cancer patients Availability of population-based cancer	2010	No information	WORKFORCE			
egistry (PBCR)**	2019	No Information	° per 10,000 cancer patients Available staff in Ministry of Health who			
Quality of mortality registration***	2007-2016	No coverage	dedicates significant proportion of their time to cancer	2019	n	
of external beam radiotherapy	2019	0.0	# of radiation oncologist ^a	2019	n/	
photon,electron) ^a			# of medical physicist ^a	2019	n/	
of mammographs ^a	2020	0.0	# of surgeons ^a	n/a	n/	
of CT scanners ^a	2020	0.0	# of radiologist ^a	2019	2	
of MRI scanners ^a	2020	1.4	# of nuclear medicine physician ^a	2019	0	
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2004	4	
FORMULATING RESPONSE						
ntegrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients	2019	-	
ICCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	1 cancer	
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally availab	
ancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	don't kno	
alliative care included in their operational, ntegrated NCD plan	2019	n/a	Palliative care availability: community/home-based care	2019	generally no	
of treatment services (surgery, adiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017		
reast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day			
reast cancer screening program: Starting ge, target population	2019	n/a				
GLOBAL INITIATIVES						
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer			
IPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	6	
Cervical cancer screening	2019	no	Early detection programme/guidelines	2019	r	
creening programme type	2019	n/a	Defined referral system	2019	r	
creening programme method	2019	n/a				
creening participation rates	2019	2/2	Annual cancer cases (0-14 years old)			
arly detection programme/guidelines	2019	n/a yes				
arry actions programme, gardennes	2013	yes	6	■ Acute	lymphoid leukaemi	
efined referral system	2019	yes	4	■ Hodgl	kin lymphoma	
			2	■ Burkit	t lymphoma	
			3	■ CNS, I	ow grade tumours	
			42 5	■ Retino	oblastoma	
				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

GREECE

BURDEN OF CANCER

Total population (2019)

10,473,452

Total # cancer cases (2018) 67,401

Total # cancer deaths (2018)
33,288

Premature deaths from NCDs (2016) 20,740

Cancer as % of NCD premature deaths (2016)

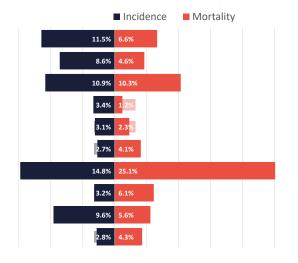
50.0%

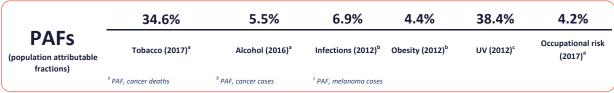
Most common cancer cases (2018)



Prostate

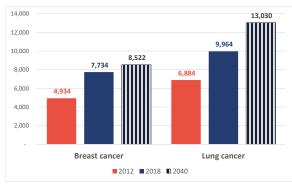
Stomach



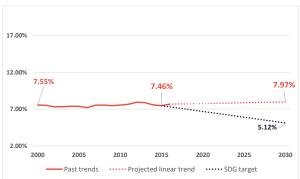


TRENDS

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



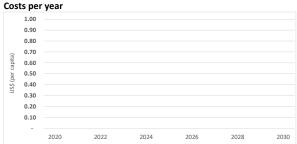
Probability of premature death from cancer per year

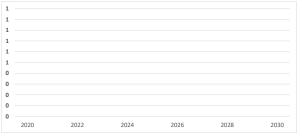


INVESTMENT CASE (2019)

*High income

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





GREECE

HEALTH SYSTEM CAPACITY

^o per 10,000 cancer patients Availability of population-based cancer			WORKFORCE			
registry (PBCR)**	2019	Registration activity	^a per 10,000 cancer patients			
Quality of mortality registration***	2007-2016	Medium	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	n	
f of external beam radiotherapy	2019	7.9	# of radiation oncologist ^a	2019	n/s	
photon,electron) ^a	2019	7.5	# of medical physicist ^a	2019	68.	
f of mammographs ^a	2020	99.3	# of surgeons ^a	2013	1667.	
# of CT scanners ^a	2020	58.8	# of radiologist ^a	2019	493.	
# of MRI scanners ^a	2020	42.6	# of nuclear medicine physician ^a	2019	n/	
of PET or PET/CT scanners ^a	2020	1.8	# of medical & pathology lab scientists ^a	2011	n/	
FORMULATING RESPONSE						
ntegrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients	2019	1.6	
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s	
MPOWER measures fully implemented and achieved	2018	3	Pathology services	2019	generally availabl	
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	don't know	
Palliative care included in their operational, integrated NCD plan	2019	n/a	Palliative care availability: community/home-based care	2019	generally no availabl	
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	737	
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day			
Breast cancer screening program: Starting age, target population	2019	40				
GLOBAL INITIATIVES						
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer			
HPV vaccination programme coverage	2018	0	Annual cancer cases (0-14 years old)	2020	23	
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	don't know	
Screening programme type	2019	opportunistic	Defined referral system	2019	don't know	
Screening programme method	2019	PAP smear				
Screening participation rates	2019	don't know	Annual cancer cases (0-14 years old)			
Early detection programme/guidelines	2019	don't know				
Defined referral system	2019	don't know	52	■ Acute	lymphoid leukaemia	
semes referral system	2019	don t know	32	■ Hodgk	in lymphoma	
				■ Burkit	t lymphoma	
			128	■ CNS, I	ow grade tumours	
			22	■ Retino	blastoma	
			10 5	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

GRENADA

BURDEN OF CANCER

Total population (2019)

112,002

Total # cancer cases (2018) n/a

Total # cancer deaths (2018) n/a

Premature deaths from NCDs (2016)

219

Cancer as % of NCD premature deaths (2016)

29.6%

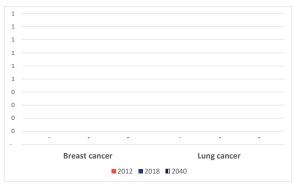
Most common cancer cases (2018)



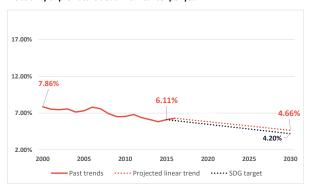
	12.3%	8.0%	n/a	n/a	n/a	1.2%
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012)°	Occupational risk (2017) ^a
iractions	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			

TRENDS

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

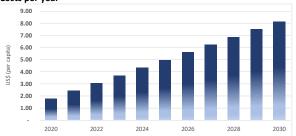


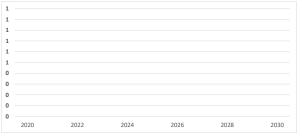
Probability of premature death from cancer per year



INVESTMENT CASE (2019)







GRENADA

HEALTH SYSTEM CAPACITY

per 10,000 cancer patients						
wailability of population-based cancer	2019	PBCR	WORKFORCE			
egistry (PBCR)**			° per 10,000 cancer patients Available staff in Ministry of Health who			
uality of mortality registration***	2007-2016	High	dedicates significant proportion of their	2019	yes	
			time to cancer			
of external beam radiotherapy	2019	-1-	# of radiation oncologist ^a	2019	n/a	
hoton,electron) ^a	2019	n/a	# of medical physicist ^a	2019	n/a	
of mammographs ^a	2020	n/a	# of surgeons ^a	2014	n/a	
of CT scanners ^a	2020	n/a	# of radiologist ^a	2019	n/a	
of MRI scanners ^a	2020	n/a	# of nuclear medicine physician ^a	2019	n/a	
of PET or PET/CT scanners ^a	2020	n/a	# of medical & pathology lab scientists ^a	2003	n/a	

FORMULATING RESPONSE

Integrated NCD plan	2019	not in effect	# Public cancer centres per 10,000 patients
NCCP (including cancer types)	2019	n/a	Early detection programme/ guid 4 cancers (breast, cervix, colon, ch
MPOWER measures fully implemented and achieved	2018	0	Pathology services
Cancer management guidelines	2019	no	Bone marrow transplantation cap
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	2	Availability of opioids* for pain management
Breast cancer screening program	2019	no	*Defined daily doses for statistical purposes
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

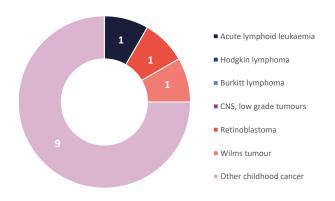
GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	n/a
Cervical cancer screening	2019	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)



0.8%

Occupational risk

(2017)^a

GUATEMALA

BURDEN OF CANCER



17,581,476

Total # cancer cases (2018)
16,332

Total # cancer deaths (2018)

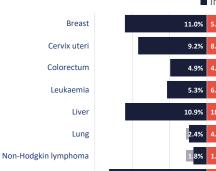
9,213

Premature deaths from NCDs (2016) 20,305

Cancer as % of NCD premature deaths (2016)

■ Incidence ■ Mortality

Most common cancer cases (2018)

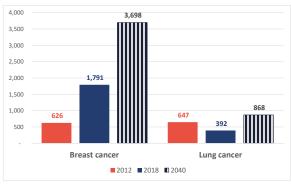




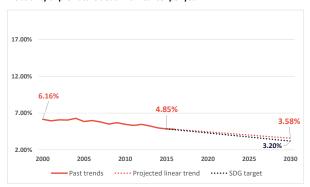


TRENDS

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

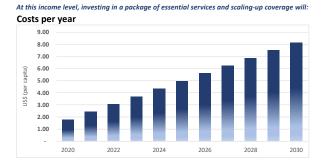


Probability of premature death from cancer per year

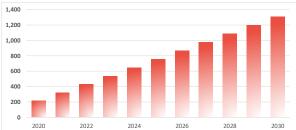


INVESTMENT CASE (2019)

*Upper middle income







GUATEMALA

^o per 10,000 cancer patients Availability of population-based cancer	2010	Desistantian estivitar	WORKFORCE		
egistry (PBCR)**	2019	Registration activity	° per 10,000 cancer patients		
Quality of mortality registration***	2007-2016	High	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	ye
of external beam radiotherapy	2019	4.9	# of radiation oncologist ^a	2019	n/a
photon, electron) a	2013	4.5	# of medical physicist ^a	2019	n/a
of mammographs ^a	2020	47.1	# of surgeons ^a	2014	123.
of CT scanners ^a	2020	56.3	# of radiologist ^a	2019	72.
of MRI scanners ^a	2020	16.5	# of nuclear medicine physician ^a	2019	2.
f of PET or PET/CT scanners ^a	2020	1.2	# of medical & pathology lab scientists ^a	2018	77.
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	1.2
ICCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally availabl
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally no availabl
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally no availabl
f of treatment services (surgery, adiotherapy, chemotherapy)	2019	2	Availability of opioids* for pain management	2015-2017	11
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per r	niliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	25			
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	33	Annual cancer cases (0-14 years old)	2020	87
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	ye
creening programme type	2019	opportunistic	Defined referral system	2019	уе
Screening programme method	2019	PAP smear			
Screening participation rates	2019	10%-50%	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	10%-30% yes			
,		7		■ Acute	lymphoid leukaemia
Defined referral system	2019	yes	244	■ Hodgk	kin lymphoma
				■ Burkit	t lymphoma
			484	CNS, I	ow grade tumours
			61	■ Retino	oblastoma
			91		
			34 24	Wilms	tumour

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

GUYANA

BURDEN OF CANCER

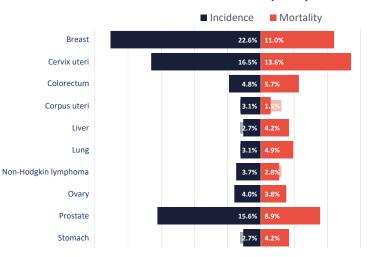


Premature deaths from NCDs (2016)
2.479

Cancer as % of NCD premature deaths (2016)

13.8%

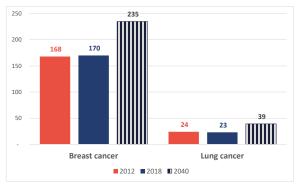
Most common cancer cases (2018)



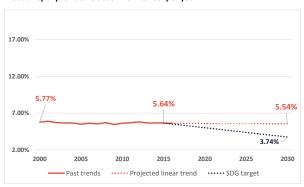


TRENDS

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

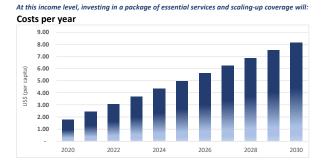


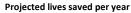
Probability of premature death from cancer per year

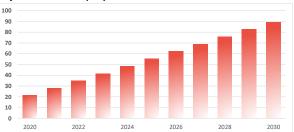


INVESTMENT CASE (2019)

*Upper middle income







yes

13.3 13.3 599.2 133.2 0.0



HEALTH SYSTEM CAPACITY

per 10,000 cancer patients				
Availability of population-based cancer	2019	PBCR	WORKFORCE	
registry (PBCR)**			° per 10,000 cancer patients Available staff in Ministry of Health who	
Quality of mortality registration***	2007-2016	Medium	dedicates significant proportion of their time to cancer	2019
# of external beam radiotherapy	2010	13.3	# of radiation oncologist ^a	2019
(photon,electron) ^a	2019	15.5	# of medical physicist ^a	2019
# of mammographs ^a	2020	53.3	# of surgeons ^a	2014
# of CT scanners ^a	2020	66.6	# of radiologist ^a	2019
# of MRI scanners ^a	2020	26.6	# of nuclear medicine physician ^a	2019
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2018
			• •	

FORMULATING RESPONSE

Integrated NCD plan	2019	operational
NCCP (including cancer types)	2019	n/a
MPOWER measures fully implemented and achieved	2018	3
Cancer management guidelines	2019	no
Palliative care included in their operational, integrated NCD plan	2019	no
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	0
Breast cancer screening program	2019	no
Breast cancer screening program: Starting age, target population	2019	n/a

# Public cancer centres per 10,000 cancer patients	2019	13.3
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
Pathology services	2019	generally not available
Bone marrow transplantation capacity	2019	generally not available
Palliative care availability: community/home-based care	2019	generally not available
Availability of opioids* for pain management	2015-2017	92

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

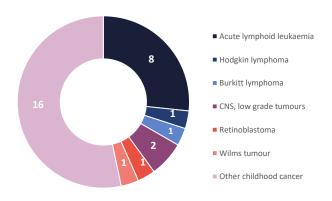
GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	9
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	visual inspection
Screening participation rates	2019	10%-50%
Early detection programme/guidelines	2019	no
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

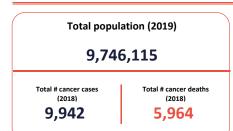
Annual cancer cases (0-14 years old)	2020	30
Early detection programme/guidelines	2019	no
Defined referral system	2019	yes

Annual cancer cases (0-14 years old)



HONDURAS

BURDEN OF CANCER

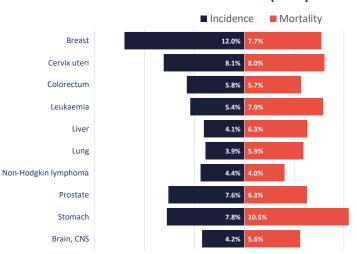


Premature deaths from NCDs (2016) 10,204

Cancer as % of NCD premature deaths (2016)

28.3%

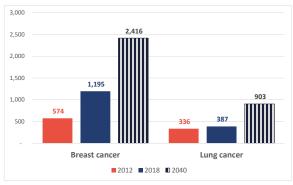
Most common cancer cases (2018)





TRENDS

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

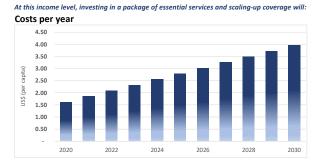


Probability of premature death from cancer per year

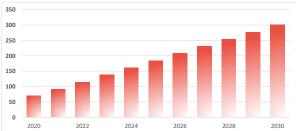


INVESTMENT CASE (2019)

*Lower middle income







■ Wilms tumour

Other childhood cancer

HONDURAS

per 10,000 cancer patients wailability of population-based cancer			WORKFORCE		
egistry (PBCR)**	2019	PBCR	^a per 10,000 cancer patients		
quality of mortality registration***	2007-2016	Very low	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	n/a
of external beam radiotherapy	2019	7.0	# of radiation oncologist ^a	2019	n/a
photon, electron) ^a	2019	7.0	# of medical physicist ^a	2019	n/a
of mammographs ^a	2020	20.1	# of surgeons ^a	2014	446.6
of CT scanners ^a	2020	19.1	# of radiologist ^a	2019	83.5
of MRI scanners ^a	2020	10.1	# of nuclear medicine physician ^a	2019	1.0
of PET or PET/CT scanners ^a	2020	1.0	# of medical & pathology lab scientists ^a	n/a	n/a
FORMULATING RESPONSE					
ntegrated NCD plan	2019	under development	# Public cancer centres per 10,000 cancer patients	2019	1.0
ICCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	1 cancer(s
/IPOWER measures fully implemented and chieved	2018	2	Pathology services	2019	generally no available
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally no available
alliative care included in their operational, ntegrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally no available
of treatment services (surgery, adiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	5:
reast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per I	miliion inhabitants per	day
reast cancer screening program: Starting ge, target population	2019	n/a			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
IPV vaccination programme coverage	2018	60.6	Annual cancer cases (0-14 years old)	2020	443
ervical cancer screening	2019	no	Early detection programme/guidelines	2019	no
creening programme type	2019	n/a	Defined referral system	2019	nc
creening programme method	2019	n/a			
creening programme method	2019 2019	n/a n/a	Annual cancer cases (0-14 years old)		
			Annual cancer cases (0-14 years old)	■ Acute lvr	nphoid leukaemia
creening participation rates	2019	n/a			
creening participation rates arly detection programme/guidelines	2019 2019	n/a yes	Annual cancer cases (0-14 years old)	■ Hodgkin	nphoid leukaemia lymphoma
creening participation rates arly detection programme/guidelines	2019 2019	n/a yes		■ Hodgkin ■ Burkitt ly	lymphoma

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

CROATIA

BURDEN OF CANCER

Total population (2019)

4,130,299

Total # cancer cases (2018)
25,221

Total # cancer deaths (2018)
14,439

Premature deaths from NCDs (2016)

11,890

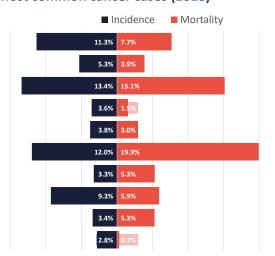
Cancer as % of NCD premature deaths (2016)

47.9%

Most common cancer cases (2018)



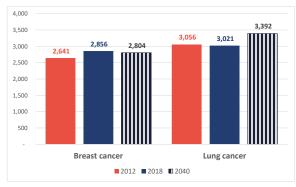
Thyroid



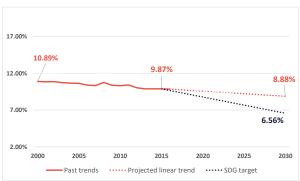


TRENDS

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



Probability of premature death from cancer per year

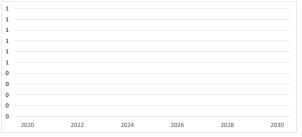


INVESTMENT CASE (2019)

*High income

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





CROATIA

HEALTH SYSTEM CAPACITY

^a per 10,000 cancer patients					
Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR	WORKFORCE		
			° per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	High	dedicates significant proportion of their	2019	yes
			time to cancer		
# of external beam radiotherapy	2019	7.1	# of radiation oncologist ^a	2019	n/a
(photon,electron) ^a	2019 7.1	# of medical physicist ^a	2019	21.0	
# of mammographs ^a	2020	52.7	# of surgeons ^a	2013	828.7
# of CT scanners ^a	2020	35.3	# of radiologist ^a	2019	312.8
# of MRI scanners ^a	2020	18.2	# of nuclear medicine physician ^a	2019	25.8
# of PET or PET/CT scanners ^a	2020	2.0	# of medical & pathology lab scientists ^a	n/a	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	under development	# p
NCCP (including cancer types)	2019	under development	E 4
MPOWER measures fully implemented and achieved	2018	2	P
Cancer management guidelines	2019	yes	В
Palliative care included in their operational, integrated NCD plan	2019	no	F C
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	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	2.0
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 not available
Availability of opioids* for pain management	2015-2017	1742

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

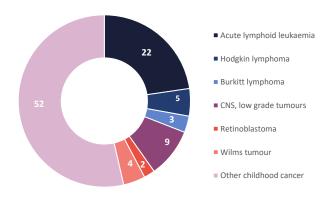
GLOBAL INITIATIVES

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	10%-50%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	97
Early detection programme/guidelines	2019	no
Defined referral system	2019	ves

Annual cancer cases (0-14 years old)





BURDEN OF CANCER

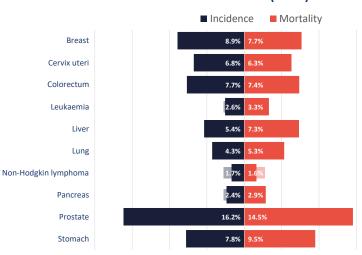


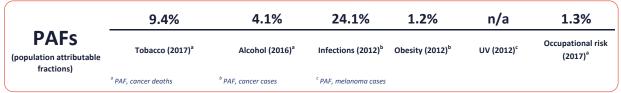
Premature deaths from NCDs (2016) 23,323

Cancer as % of NCD premature deaths (2016)

13.8%

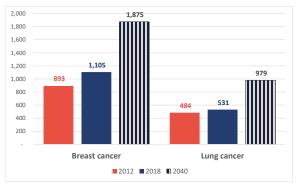
Most common cancer cases (2018)



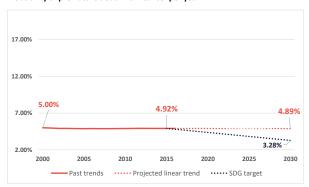


TRENDS

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

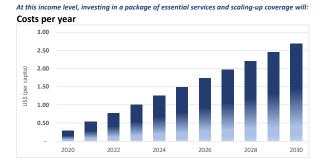


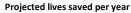
Probability of premature death from cancer per year

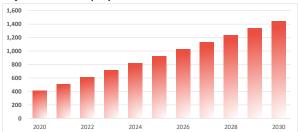


INVESTMENT CASE (2019)

*Low income









HEALTH SYSTEM CAPACITY

per 10,000 cancer patients Availability of population-based cancer			WORKFORCE		
registry (PBCR)**	2019	No information	° per 10,000 cancer patients		
Quality of mortality registration***	2007-2016	No coverage	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	n
of external beam radiotherapy	2040		# of radiation oncologist ^a	2019	0.
photon,electron) ^a	2019	0.0	# of medical physicist ^a	2019	0.
f of mammographs ^a	2020	8.9	# of surgeons ^a	2014	93.
# of CT scanners ^a	2020	3.2	# of radiologist ^a	2019	32.
of MRI scanners ^a	2020	0.8	# of nuclear medicine physician ^a	2019	0.
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2018	n/s
FORMULATING RESPONSE					
integrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients	2019	n/a
NCCP (including cancer types)	2019	not in effect	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally no availabl
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	don't know
Palliative care included in their operational, ntegrated NCD plan	2019	n/a	Palliative care availability: community/home-based care	2019	generally no availabl
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per r	niliion inhabitants per	· day
Breast cancer screening program: Starting age, target population	2019	40			
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	54
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	ye
Screening programme type	2019	opportunistic	Defined referral system	2019	don't knov
Screening programme method	2019	HPV test			
Screening participation rates	2019	don't know	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	yes			
		•		■ Acute lyr	mphoid leukaemia
Defined referral system	2019	don't know	152	■ Hodgkin	lymphoma
				■ Burkitt ly	mphoma
			297	■ CNS, low	grade tumours
			14	■ Retinobla	astoma
			38		a5t0111a

^{**}The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry
***The mortality estimates for this country have a high degree of uncertainty because they are not based on any national NCD mortality data

HUNGARY

BURDEN OF CANCER

Total population (2019)

9,684,680

Total # cancer cases (2018)
70,454

Total # cancer deaths (2018) 33,010

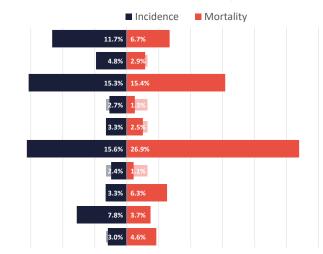
Premature deaths from NCDs (2016) 39,156

-

Cancer as % of NCD premature deaths (2016)

41.7%

Most common cancer cases (2018)



	34.8%	11.4%	7.8%	5.6%	77.5%	2.6%
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012)°	Occupational risk (2017) ^a
iractionsy	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			,

Breast

Bladder

Lung

Pancreas

Prostate

Stomach

Melanoma of skin

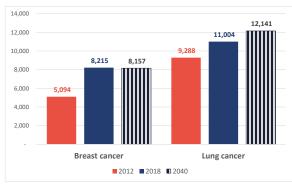
Colorectum

Corpus uteri

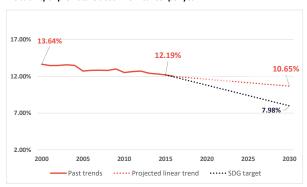
Kidney

TRENDS

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



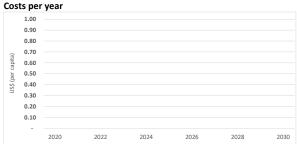
Probability of premature death from cancer per year

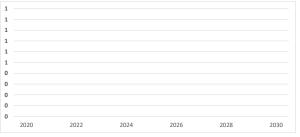


INVESTMENT CASE (2019)

*High income

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





HUNGARY

per 10,000 cancer patients Availability of population-based cancer	2010	Decision estima	WORKFORCE		
egistry (PBCR)**	2019	Registration activity	° per 10,000 cancer patients		
uality of mortality registration***	2007-2016	High	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	ye
of external beam radiotherapy	2040		# of radiation oncologist ^a	2019	12.
hoton,electron) ^a	2019	5.5	# of medical physicist ^a	2019	13.
of mammographs ^a	2020	20.6	# of surgeons ^a	2011	452.
of CT scanners ^a	2020	17.9	# of radiologist ^a	2019	n/
of MRI scanners ^a	2020	7.9	# of nuclear medicine physician ^a	2019	15.
of PET or PET/CT scanners ^a	2020	0.9	# of medical & pathology lab scientists ^a	n/a	n/
ORMULATING RESPONSE					
ntegrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients	2019	3.7
ICCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s
1POWER measures fully implemented and chieved	2018	1	Pathology services	2019	generally availabl
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally availabl
alliative care included in their operational, itegrated NCD plan	2019	n/a	Palliative care availability: community/home-based care	2019	generally availabl
of treatment services (surgery, diotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	443
reast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per mili	ion inhabitants	per day
reast cancer screening program: Starting ge, target population	2019	45			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
PV vaccination programme coverage	2018	70.7	Annual cancer cases (0-14 years old)	2020	28
ervical cancer screening	2019	yes	Early detection programme/guidelines	2019	ye
creening programme type	2019	organised	Defined referral system	2019	ye
creening programme method	2019	PAP smear			
creening participation rates	2019	10%-50%	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	yes		■ Acuto	lymphoid leukaemia
efined referral system	2019	yes	62		
·		•			in lymphoma
			14		t lymphoma
			159		ow grade tumours
			27	■ Retino	blastoma
			14 5	Wilms	tumour

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

INDONESIA

BURDEN OF CANCER



270,625,567

Total # cancer cases (2018) 348,809

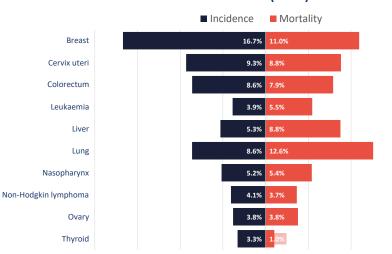
(2018) 207,210

Premature deaths from NCDs (2016) 686,532

Cancer as % of NCD premature deaths (2016)

18.6%

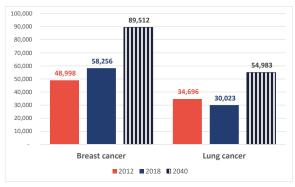
Most common cancer cases (2018)



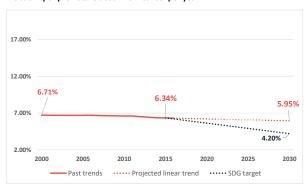
	22.5%	1.7%	18.6%	1.3%	5.0%	2.4%
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk (2017) ^a
	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			

TRENDS

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



Probability of premature death from cancer per year

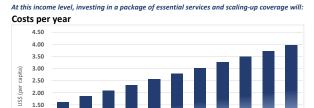


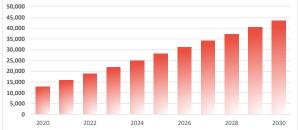
INVESTMENT CASE (2019)

1.50

1.00

0.50





■ Retinoblastoma

Other childhood cancer

INDONESIA

vailability of population-based cancer	2019	PBCR	WORKFORCE			
egistry (PBCR)**	2013	rock	"per 10,000 cancer patients Available staff in Ministry of Health who			
Quality of mortality registration***	2007-2016	No coverage	dedicates significant proportion of their time to cancer	2019	yes	
of external beam radiotherapy	2019	1.7	# of radiation oncologist ^a	2019	1.2	
photon,electron) ^a			# of medical physicist ^a	2019	0.9	
of mammographs ^a	2020	n/a	# of surgeons ^a	n/a	n/a	
of CT scanners ^a	2020	7.9	# of radiologist ^a	2019	25.8	
of MRI scanners ^a	2020	2.0	# of nuclear medicine physician ^a	2019	1.0	
of PET or PET/CT scanners ^a	2020	0.2	# of medical & pathology lab scientists ^a	2009	n/a	
ORMULATING RESPONSE						
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	0.4	
ICCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s)	
MPOWER measures fully implemented and chieved	2018	0	Pathology services	2019	generally available	
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available	
alliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	don't know	
of treatment services (surgery, adiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	21	
reast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day			
reast cancer screening program: Starting ge, target population	2019	30				
GLOBAL INITIATIVES						
limination of Cervical Cancer			Global Initiative for Childhood Cancer			
IPV vaccination programme coverage	2018	0.5	Annual cancer cases (0-14 years old)	2020	7574	
ervical cancer screening	2019	yes	Early detection programme/guidelines	2019	yes	
creening programme type	2019	organised	Defined referral system	2019	yes	
crooning programme method	2019	visual inspection				
creening programme method	2010	<10%	Annual cancer cases (0-14 years old)			
creening participation rates	2019					
creening participation rates						
creening participation rates arly detection programme/guidelines	2019	yes		■ Acute	lymphoid leukaemia	
creening participation rates			2251		lymphoid leukaemia in lymphoma	
creening participation rates arly detection programme/guidelines	2019	yes	2251	■ Hodgk		

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



BURDEN OF CANCER

Total population (2019)

1,366,417,756

Total # cancer cases (2018)
1,157,294

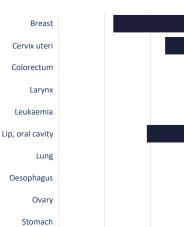
Total # cancer deaths (2018)
784,821

Premature deaths from NCDs (2016) 3,022,150

Cancer as % of NCD premature deaths (2016)

19.1%

Most common cancer cases (2018)

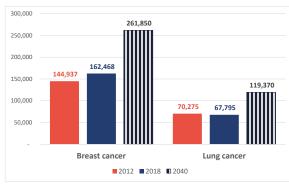




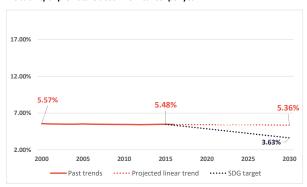
	17.4%	6.5%	21.7%	0.7%	0.0%	1.6%
PAFS (population attributable	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk (2017) ^a
fractions)	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			

TRENDS

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

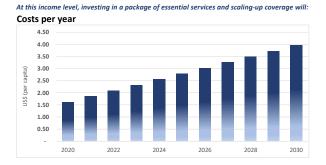


Probability of premature death from cancer per year

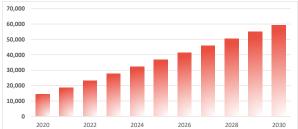


INVESTMENT CASE (2019)

*Lower middle income







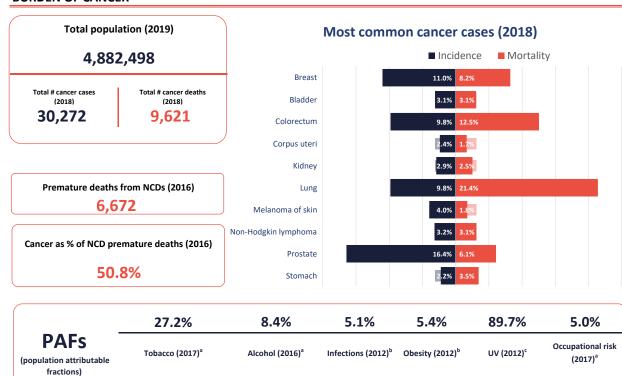


per 10,000 cancer patients Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
egistry (PBCR)**	2013	riigii quanty i bek	^o per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	Very low	dedicates significant proportion of their time to cancer	2019	ye
of external beam radiotherapy	2019	5.4	# of radiation oncologist ^a	2019	3.1
ohoton, electron) ^a			# of medical physicist ^a	2019	15.0
of mammographs ^a	2020	23.3	# of surgeons ^a	2009	272.7
of CT scanners ^a	2020	73.4	# of radiologist ^a	2019	345.6
of MRI scanners ^a	2020	17.5	# of nuclear medicine physician ^a	2019	3.5
of PET or PET/CT scanners ^a	2020	2.3	# of medical & pathology lab scientists ^a	n/a	n/a
ORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	2.6
ICCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s
MPOWER measures fully implemented and chieved	2018	2	Pathology services	2019	generally available
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally no availabl
alliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally no available
of treatment services (surgery, adiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	19
reast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per	miliion inhabitants	per day
reast cancer screening program: Starting ge, target population	2019	30			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
IPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	3854
ervical cancer screening	2019	yes	Early detection programme/guidelines	2019	ye
creening programme type	2019	organised	Defined referral system	2019	ye
araaning programme method	2019	visual inspection	Americal company second (O. 14 company old)		
creening programme method			Annual cancer cases (0-14 years old)		
creening programme method creening participation rates	2019	70% or more			
	2019 2019	70% or more yes		■ Acute	lymphoid leukaemia
creening participation rates					lymphoid leukaemia
creening participation rates arly detection programme/guidelines	2019	yes	11457	■ Hodgk	lymphoid leukaemia in lymphoma t lymphoma
creening participation rates arly detection programme/guidelines	2019	yes	20495	■ Hodgk ■ Burkit	in lymphoma

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

IRELAND

BURDEN OF CANCER

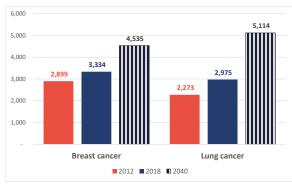


^b PAF, cancer cases

TRENDS

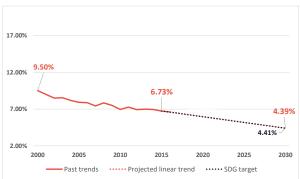
Estimated past and future trends in total cases per year (breast and lung)

^a PAF, cancer deaths



Probability of premature death from cancer per year

^c PAF, melanoma cases

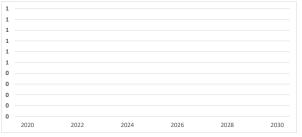


INVESTMENT CASE (2019)

*High income









HEALTH SYSTEM CAPACITY

^a per 10,000 cancer patients					
Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
registry (PBCR)**			^o per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	High	dedicates significant proportion of their time to cancer	2019	yes
# of external beam radiotherapy	2040		# of radiation oncologist ^a	2019	10.6
(photon,electron) ^a	2019	12.6	# of medical physicist ^a	2019	68.0
# of mammographs ^a	2020	25.4	# of surgeons ^a	2014	727.1
# of CT scanners ^a	2020	34.7	# of radiologist ^a	2019	128.3
# of MRI scanners ^a	2020	28.1	# of nuclear medicine physician ^a	2019	n/a
# of PET or PET/CT scanners ^a	2020	3.0	# of medical & pathology lab scientists ^a	n/a	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	2.6
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s)
MPOWER measures fully implemented and achieved	2018	4	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	6500
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per	miliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	50			

GLOBAL INITIATIVES

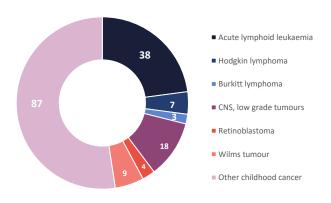
Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	62
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	70% or more
Early detection programme/guidelines	2019	no
Defined referral system	2019	yes

Global Initiative for Childhood Cancer Annual cancer cases (0-14 years old) 2020 166 Early detection programme/guidelines 2019 no

2019

Annual cancer cases (0-14 years old)

Defined referral system



IRAN, ISLAMIC REPUBLIC OF

BURDEN OF CANCER

Total population (2019)

82,913,893

Total # cancer cases (2018)

110,115

Total # cancer deaths (2018)

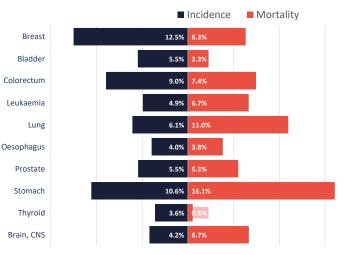
55,785

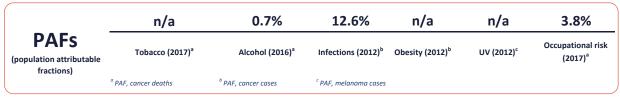
Premature deaths from NCDs (2016) 94.604

Cancer as % of NCD premature deaths (2016)

34.2%

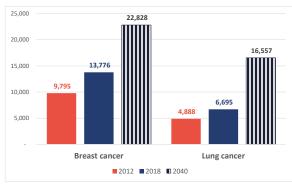




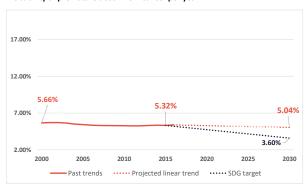


TRENDS

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

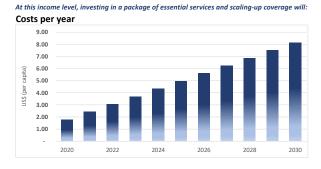


Probability of premature death from cancer per year

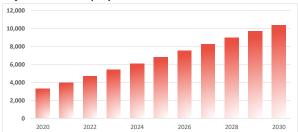


INVESTMENT CASE (2019)

*Upper middle income







IRAN, ISLAMIC REPUBLIC OF

per 10,000 cancer patients Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
egistry (PBCR)**	2013	riigii quality i belt	° per 10,000 cancer patients Available staff in Ministry of Health who		
uality of mortality registration***	2007-2016	Low	dedicates significant proportion of their time to cancer	2019	ye
of external beam radiotherapy	2019	11.0	# of radiation oncologist ^a	2019	22.2
photon,electron) ^a			# of medical physicist ^a	2019	31.8
of mammographs ^a	2020	58.6	# of surgeons ^a	2014	115.
of CT scanners ^a	2020	77.5	# of radiologist ^a	2019	211.:
of MRI scanners ^a	2020	27.5	# of nuclear medicine physician ^a	2019	18.2
of PET or PET/CT scanners ^a	2020	0.5	# of medical & pathology lab scientists ^a	2006	n/a
ORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	3.4
ICCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s
/IPOWER measures fully implemented and chieved	2018	3	Pathology services	2019	generally available
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally availabl
alliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally no available
of treatment services (surgery, adiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	29
reast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per I	niliion inhabitants	per dav
reast cancer screening program: Starting ge, target population	2019	30			,
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
PV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	221
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	ne
creening programme type	2019	organised	Defined referral system	2019	n
creening programme method	2019	HPV test			
creening participation rates	2019		Annual cancer cases (0-14 years old)		
		<10%			
arly detection programme/guidelines	2019	yes		■ Acute	lymphoid leukaemia
efined referral system	2019	yes	660	■ Hodgl	kin lymphoma
				■ Burkit	t lymphoma
			1180	■ CNS, I	ow grade tumours
			112	■ Retino	bblastoma
			72 18	Wilms	tumour

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



BURDEN OF CANCER



39,309,789

Total # cancer cases (2018)
25,320

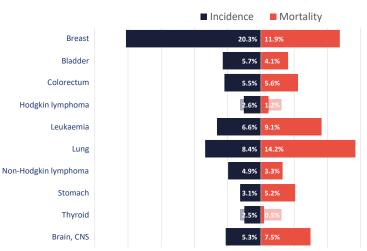
Total # cancer deaths (2018)
14,524

Premature deaths from NCDs (2016) 40,451

Cancer as % of NCD premature deaths (2016)

29.4%

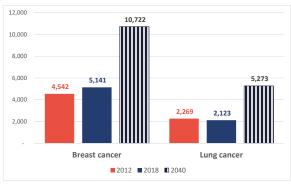
Most common cancer cases (2018)



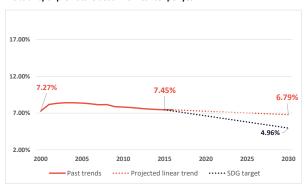
	18.4%	0.7%	9.3%	3.7%	0.0%	1.8%
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk (2017) ^a
Hactionsy	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			,

TRENDS

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

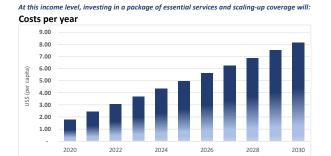


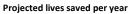
Probability of premature death from cancer per year

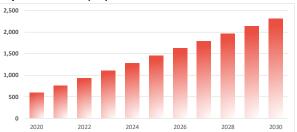


INVESTMENT CASE (2019)

*Upper middle income







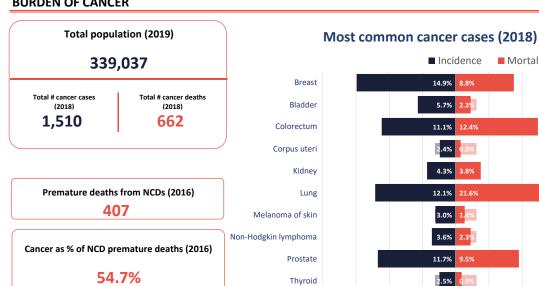


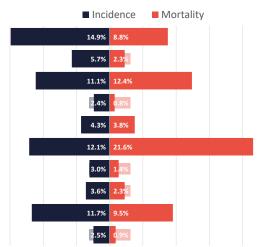
Availability of population-based cancer	2019	PBCR	WORKFORCE		
egistry (PBCR)**	2013	rbek	^a per 10,000 cancer patients Available staff in Ministry of Health who		
uality of mortality registration***	2007-2016	Low	dedicates significant proportion of their time to cancer	2019	yes
of external beam radiotherapy	2019	7.5	# of radiation oncologist ^a	2019	n/a
hoton,electron) ^a	2015		# of medical physicist ^a	2019	23.
of mammographs ^a	2020	19.4	# of surgeons ^a	2013	423.0
of CT scanners ^a	2020	74.2	# of radiologist ^a	2019	n/
of MRI scanners ^a	2020	49.4	# of nuclear medicine physician ^a	2019	4.
of PET or PET/CT scanners ^a	2020	2.8	# of medical & pathology lab scientists a	n/a	n/a
ORMULATING RESPONSE					
stegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	17.4
CCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s
IPOWER measures fully implemented and chieved	2018	0	Pathology services	2019	generally available
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally no availabl
illiative care included in their operational, tegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally no available
of treatment services (surgery, diotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management 2	015-2017	
reast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per mili	ion inhabitants	per day
reast cancer screening program: Starting ge, target population	2019	40			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
PV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	228
ervical cancer screening	2019	no	Early detection programme/guidelines	2019	n
creening programme type	2019	n/a	Defined referral system	2019	n
reening programme method	2019	n/a			
creening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	yes			
efined referral system	2019		452	■ Acute	lymphoid leukaemia
enneu reierrai system	2019	yes		■ Hodgk	in lymphoma
			154	■ Burkit	t lymphoma
			1263	CNS, le	ow grade tumours
			112	■ Retino	blastoma
			114	Wilms	tumour
			120		

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



BURDEN OF CANCER

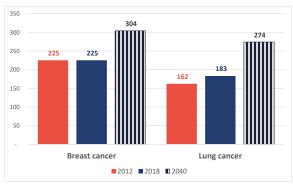




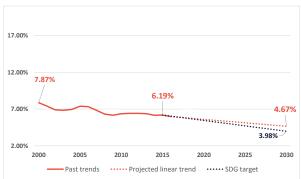


TRENDS

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

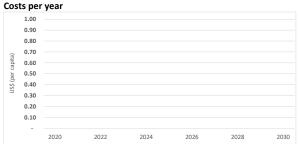


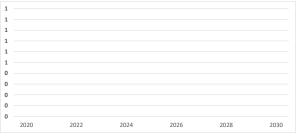
Probability of premature death from cancer per year



INVESTMENT CASE (2019)

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







HEALTH SYSTEM CAPACITY

per 10,000 cancer patients					
Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
registry (PBCR)**			^o per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	High	dedicates significant proportion of their time to cancer	2019	yes
# of external beam radiotherapy	2040	42.2	# of radiation oncologist ^a	2019	19.9
(photon,electron) ^a	2019	13.2	# of medical physicist ^a	2019	n/a
# of mammographs ^a	2020	39.7	# of surgeons ^a	2014	1106.0
# of CT scanners ^a	2020	99.3	# of radiologist ^a	2019	n/a
# of MRI scanners ^a	2020	46.4	# of nuclear medicine physician ^a	2019	n/a
# of PET or PET/CT scanners ^a	2020	6.6	# of medical & pathology lab scientists a	2009	1980.1

FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 2 patients
NCCP (including cancer types)	2019	operational	Early detection programme, 4 cancers (breast, cervix, colo
MPOWER measures fully implemented and achieved	2018	0	Pathology services
Cancer management guidelines	2019	yes	Bone marrow transplantation
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based car
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for p
Breast cancer screening program	2019	yes	*Defined daily doses for statistical pu
Breast cancer screening program: Starting age, target population	2019	40	

# Public cancer centres per 10,000 cancer patients	2019	6.6
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s)
Pathology services	2019	generally available
Bone marrow transplantation capacity	2019	generally available
Palliative care availability: community/home-based care	2019	generally available
Availability of opioids* for pain management	2015-2017	12841

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

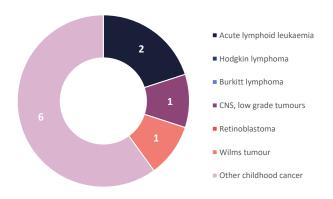
GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	85
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	>50% and <70%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	10
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Annual cancer cases (0-14 years old)





BURDEN OF CANCER



Total # cancer cases (2018)
26,751

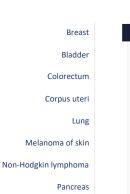
Total # cancer deaths (2018)
12,315

Premature deaths from NCDs (2016) 9.049

Cancer as % of NCD premature deaths (2016)

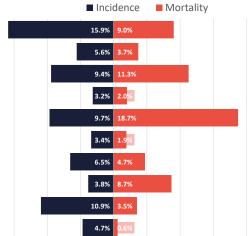
52.0%

Most common cancer cases (2018)



Prostate

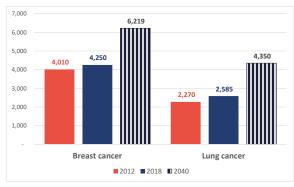
Thyroid



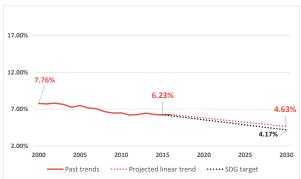


TRENDS

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



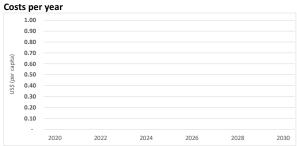
Probability of premature death from cancer per year

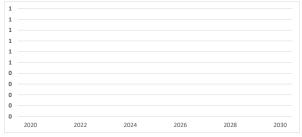


INVESTMENT CASE (2019)

*High income

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





2019 generally available

2015-2017

11538



HEALTH SYSTEM CAPACITY

per 10,000 cancer patients					
Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
registry (PBCR)** Quality of mortality registration***	2007-2016	High	⁹ per 10,000 cancer patients Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	ye
of external beam radiotherapy			# of radiation oncologist ^a	2019	n/a
photon,electron) ^a	2019	12.3	# of medical physicist ^a	2019	n/a
of mammographs ^a	2020	35.1	# of surgeons ^a	2013	1181.0
# of CT scanners ^a	2020	43.7	# of radiologist ^a	2019	n/a
of MRI scanners ^a	2020	23.6	# of nuclear medicine physician ^a	2019	28.0
of PET or PET/CT scanners ^a	2020	3.7	# of medical & pathology lab scientists ^a	n/a	n/s
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	3.0
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s
MPOWER measures fully implemented and ichieved	2018	1	Pathology services	2019	generally available
Cancer management guidelines	2019	ves	Bone marrow transplantation capacity	2019	generally available

Breast cancer screening program 2019 yes
*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day

Breast cancer screening program: Starting 2019 50

3

GLOBAL INITIATIVES

of treatment services (surgery,

radiotherapy, chemotherapy)

integrated NCD plan

age, target population

Palliative care included in their operational,

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	50.3
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
Screening programme method	2019	PAP smear
Screening participation rates	2019	10%-50%
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

2019

2019

Global Initiative for Childhood Cancer

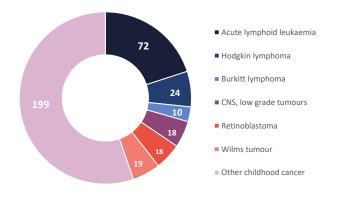
Palliative care availability:

community/home-based care

Availability of opioids* for pain

Annual cancer cases (0-14 years old)	2020	360
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Annual cancer cases (0-14 years old)





BURDEN OF CANCER

Total population (2019)

60,550,092

Total # cancer cases (2018)
409,808

Total # cancer deaths (2018)
175,741

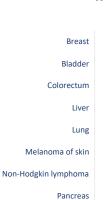
Premature deaths from NCDs (2016)

94,043

Cancer as % of NCD premature deaths (2016)

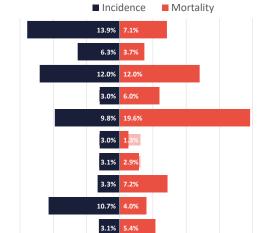
54.4%

Most common cancer cases (2018)



Prostate

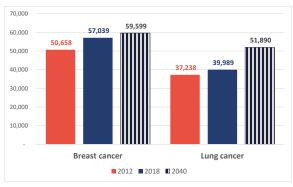
Stomach



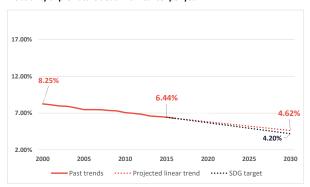


TRENDS

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



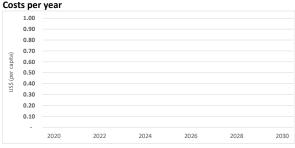
Probability of premature death from cancer per year

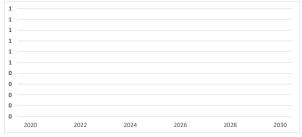


INVESTMENT CASE (2019)

*High income

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







^a per 10,000 cancer patients					
Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
registry (PBCR)**		0 4/4 7	^o per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	High	dedicates significant proportion of their time to cancer	2019	yes
# of external beam radiotherapy	2019	10.3	# of radiation oncologist ^a	2019	n/a
(photon,electron) ^a	2019	10.3	# of medical physicist ^a	2019	24.8
# of mammographs ^a	2020	50.5	# of surgeons ^a	2011	296.4
# of CT scanners ^a	2020	51.7	# of radiologist ^a	2019	44.2
# of MRI scanners ^a	2020	42.0	# of nuclear medicine physician ^a	2019	17.1
# of PET or PET/CT scanners ^a	2020	4.5	# of medical & pathology lab scientists ^a	n/a	n/a
FORMULATING RESPONSE					
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer	2019	4.9

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	4.9
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s)
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	4905
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per i	miliion inhabitants į	per day
Breast cancer screening program: Starting age, target population	2019	50			

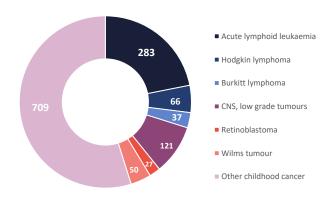
GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	40.2
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	70% or more
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	1293
Early detection programme/guidelines	2019	yes
Defined referral system	2019	ves

Annual cancer cases (0-14 years old)



JAMAICA

BURDEN OF CANCER



2,948,277

Total # cancer cases (2018)
7,348

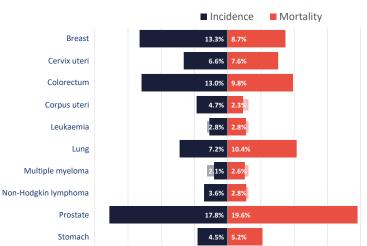
Total # cancer deaths (2018)
4,746

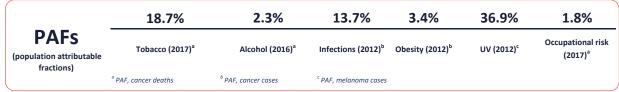
Premature deaths from NCDs (2016) 4,418

Cancer as % of NCD premature deaths (2016)

36.3%

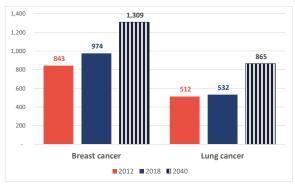
Most common cancer cases (2018)



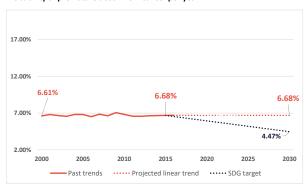


TRENDS

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

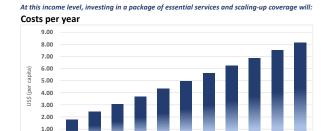


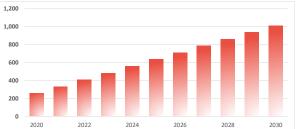
Probability of premature death from cancer per year



INVESTMENT CASE (2019)

*Upper middle income





JAMAICA

registry (PBCR)** Quality of mortality registration*** # of external beam radiotherapy (photon, electron) ^a # of mammographs ^a	2019 2007-2016 2019	High quality PBCR	^o per 10,000 cancer patients Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	ye:
f of external beam radiotherapy photon,electron) ^a			dedicates significant proportion of their time to cancer	2019	ye
photon, electron) a	2019		· ·		
	2013	6.8	# of radiation oncologist ^a	2019	5.4
of mammographs ^a		0.8	# of medical physicist ^a	2019	n/a
	2020	15.0	# of surgeons ^a	2014	249.0
of CT scanners ^a	2020	5.4	# of radiologist ^a	2019	81.7
of MRI scanners ^a	2020	5.4	# of nuclear medicine physician ^a	2019	6.8
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2016	n/a
FORMULATING RESPONSE					
ntegrated NCD plan	2019	not in effect	# Public cancer centres per 10,000 cancer patients	2019	2.7
NCCP (including cancer types)	2019	not in effect	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s
MPOWER measures fully implemented and achieved	2018	3	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, ntegrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally no available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	127
Breast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per n	niliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	n/a			
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	8.1	Annual cancer cases (0-14 years old)	2020	100
Cervical cancer screening	2019	no	Early detection programme/guidelines	2019	no
Screening programme type	2019	n/a	Defined referral system	2019	no
Screening programme method	2019	n/a			
Screening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	no			
	2040			■ Acute	lymphoid leukaemia
Self-red referred makes	2019	no	28	■ Hodgk	in lymphoma
Defined referral system					
Defined referral system				■ Burkit	t lymphoma
Defined referral system			55		t lymphoma ow grade tumours
Defined referral system				CNS, le	

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

JORDAN

BURDEN OF CANCER



10,101,697

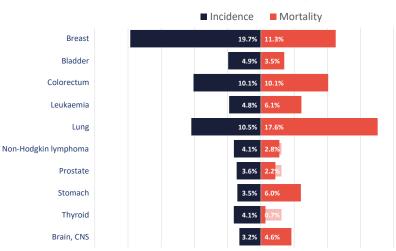
Total # cancer cases (2018)
10,898

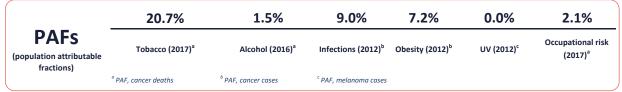
Total # cancer deaths (2018)
5,813

Premature deaths from NCDs (2016) 11,264

Cancer as % of NCD premature deaths (2016) 21.7%

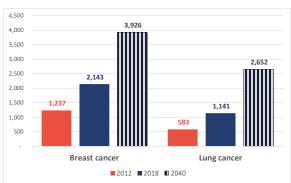
Most common cancer cases (2018)



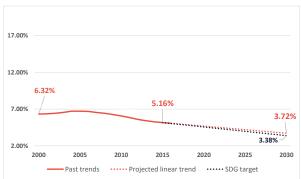


TRENDS

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

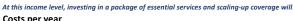


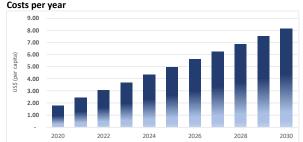
Probability of premature death from cancer per year

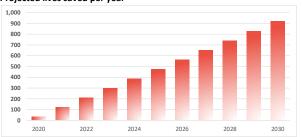


INVESTMENT CASE (2019)

*Upper middle income







JORDAN

Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
egistry (PBCR)** Quality of mortality registration***	2007-2016	Low	^o per 10,000 cancer patients Available staff in Ministry of Health who dedicates significant proportion of their	2019	ye
			time to cancer		
f of external beam radiotherapy photon,electron) ^a	2019	12.8	# of radiation oncologist ^a # of medical physicist ^a	2019 2019	n/a n/a
f of mammographs ^a	2020	38.5	# of surgeons ^a	n/a	n/a
f of CT scanners ^a	2020	110.1	# of radiologist ^a	2019	n/a
of MRI scanners ^a	2020	58.7	# of nuclear medicine physician a	2019	26.
of PET or PET/CT scanners ^a	2020	6.4	# of medical & pathology lab scientists ^a	2004	1835.
FORMULATING RESPONSE					
ntegrated NCD plan	2019	not in effect	# Public cancer centres per 10,000 cancer patients	2019	3.7
NCCP (including cancer types)	2019	under development	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	1 cancer(s
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally availabl
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally no availabl
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally no availabl
f of treatment services (surgery, adiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	23
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per r	niliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	40			
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	50
Cervical cancer screening	2019	no	Early detection programme/guidelines	2019	n
Screening programme type	2019	n/a	Defined referral system	2019	ye
Screening programme method	2019	n/a			
ccreening programme method	2019 2019		Annual cancer cases (0-14 years old)		
creening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
				■ Acute	lymphoid leukaemia
creening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		lymphoid leukaemia in lymphoma
creening participation rates carly detection programme/guidelines	2019 2019	n/a no	100	■ Hodgk	
creening participation rates carly detection programme/guidelines	2019 2019	n/a no	100	■ Hodgk	in lymphoma
creening participation rates carly detection programme/guidelines	2019 2019	n/a no	100	HodgkBurkitCNS, let	in lymphoma t lymphoma

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



BURDEN OF CANCER

Total population (2019)

126,860,299

Total # cancer cases (2018) **883,395**

Total # cancer deaths (2018) 409,399

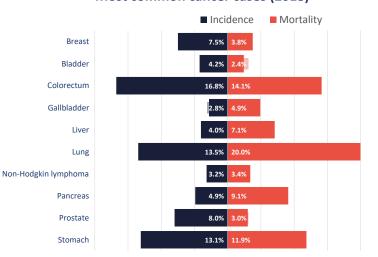
Premature deaths from NCDs (2016)

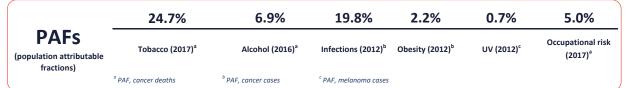
179,185

Cancer as % of NCD premature deaths (2016)

55.2%

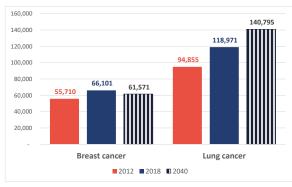
Most common cancer cases (2018)



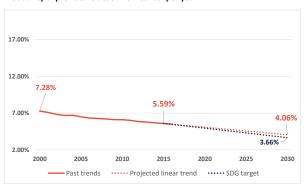


TRENDS

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



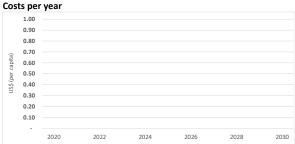
Probability of premature death from cancer per year



INVESTMENT CASE (2019)

*High income

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





0 cancer(s)

generally available generally available

generally available

1227



HEALTH SYSTEM CAPACITY

per 10,000 cancer patients					
Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
registry (PBCR)**			° per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	High	dedicates significant proportion of their	2019	yes
			time to cancer		
# of external beam radiotherapy	2010	10.5	# of radiation oncologist ^a	2019	n/a
(photon,electron) ^a	2019	10.5	# of medical physicist ^a	2019	10.8
# of mammographs ^a	2020	47.4	# of surgeons ^a	2013	240.8
# of CT scanners ^a	2020	153.6	# of radiologist ^a	2019	97.5
# of MRI scanners ^a	2020	74.6	# of nuclear medicine physician ^a	2019	30.6
# of PET or PET/CT scanners ^a	2020	4.2	# of medical & pathology lab scientists a	n/a	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019 gener
Cancer management guidelines	2019	don't know	Bone marrow transplantation capacity	2019 gener
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019 gener
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per	miliion inhabitants per day
Breast cancer screening program: Starting age, target population	2019	40		

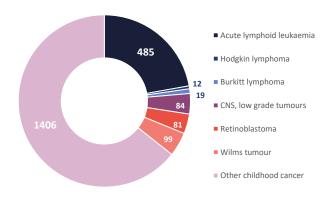
GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	0.3
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	10%-50%
Early detection programme/guidelines	2019	don't know
Defined referral system	2019	don't know

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	2186
Early detection programme/guidelines	2019	don't know
Defined referral system	2019	don't know

Annual cancer cases (0-14 years old)



KAZAKHSTAN

BURDEN OF CANCER

Total population (2019)

18,551,428

Total # cancer cases (2018)
33,949

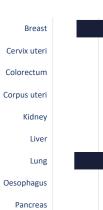
Total # cancer deaths (2018)
21,828

Premature deaths from NCDs (2016) 54,566

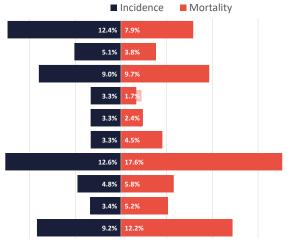
Cancer as % of NCD premature deaths (2016)

26.1%

Most common cancer cases (2018)



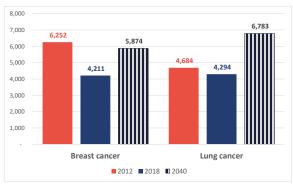
Stomach



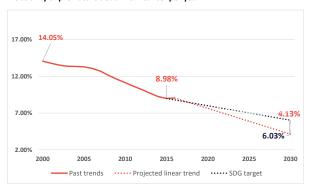


TRENDS

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

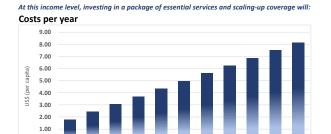


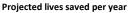
Probability of premature death from cancer per year

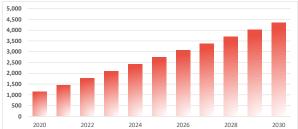


INVESTMENT CASE (2019)

*Upper middle income







KAZAKHSTAN

ЦΕΛ	TU	SYSTFN	<i>1</i>	ACITY
пга		7	/I L AP	41 I I I

per 10,000 cancer patients					
Availability of population-based cancer	2019	PBCR	WORKFORCE		
egistry (PBCR)**			° per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	Medium	dedicates significant proportion of their time to cancer	2019	yes
of external beam radiotherapy	2040	42.2	# of radiation oncologist ^a	2019	n/a
photon,electron) ^a	2019	13.3	# of medical physicist ^a	2019	1.5
of mammographs ^a	2020	56.6	# of surgeons ^a	n/a	n/a
of CT scanners ^a	2020	34.5	# of radiologist ^a	2019	191.5
of MRI scanners ^a	2020	17.7	# of nuclear medicine physician ^a	2019	n/a
of PET or PET/CT scanners ^a	2020	0.3	# of medical & pathology lab scientists ^a	n/a	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	6.2
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	37
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per	miliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	40			

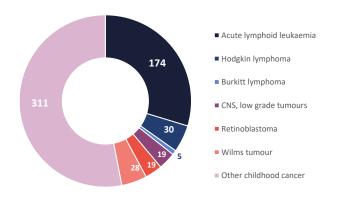
GLOBAL INITIATIVES

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

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	586
Early detection programme/guidelines	2019	no
Defined referral system	2019	ves

Annual cancer cases (0-14 years old)





BURDEN OF CANCER



52,573,967

Total # cancer cases (2018) 47,887

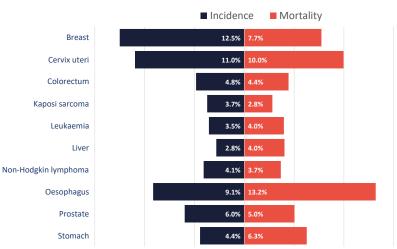
Total # cancer deaths (2018) 32,987

Premature deaths from NCDs (2016) 31,607

Cancer as % of NCD premature deaths (2016)

51.3%

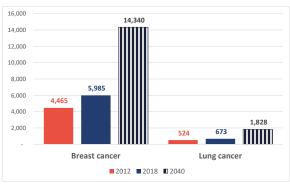
Most common cancer cases (2018)



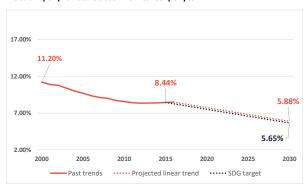


TRENDS

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

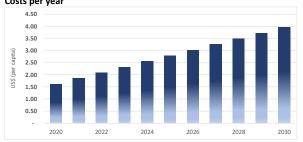


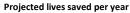
Probability of premature death from cancer per year

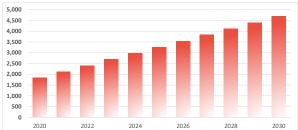


INVESTMENT CASE (2019)









Other childhood cancer



per 10,000 cancer patients Availability of population-based cancer			WORKFORCE		
registry (PBCR)**	2019	High quality PBCR	^a per 10,000 cancer patients		
Quality of mortality registration***	2007-2016	No coverage	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	ye
of external beam radiotherapy	2010	2.2	# of radiation oncologist ^a	2019	n/a
photon,electron) ^a	2019	2.3	# of medical physicist ^a	2019	0.8
f of mammographs ^a	2020	15.0	# of surgeons ^a	2014	66.0
of CT scanners ^a	2020	34.5	# of radiologist ^a	2019	62.0
f of MRI scanners ^a	2020	10.4	# of nuclear medicine physician ^a	2019	0.
of PET or PET/CT scanners ^a	2020	0.2	# of medical & pathology lab scientists ^a	2004	1252.
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	0.4
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally availabl
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally no availabl
Palliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally no available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	2	Availability of opioids* for pain management	2015-2017	5
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per	miliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	35			
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	279
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	ye
Screening programme type	2019	opportunistic	Defined referral system	2019	ye
Screening programme method	2019	HPV test	Annual cancer cases (0-14 years old)		
Screening participation rates	2019	10%-50%	Allitual Calicer Cases (0-14 years olu)		
Early detection programme/guidelines	2019	yes			
Defined referral system	2019	yes	353		lymphoid leukaemia
			117	■ Hodg	kin lymphoma
			155	■ Burkit	t lymphoma
			83	CNS, I	ow grade tumours
			1782	■ Retino	bblastoma

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

KYRGYZSTAN

BURDEN OF CANCER



6,415,851

Total # cancer cases (2018) **6,546**

Total # cancer deaths (2018)
4,497

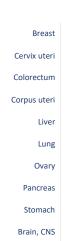
Premature deaths from NCDs (2016)

13,333

Cancer as % of NCD premature deaths (2016)

19.2%

Most common cancer cases (2018)

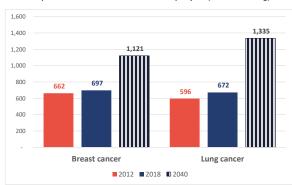




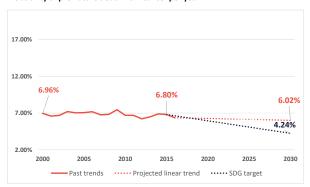
	17.4%	9.1%	27.0%	3.5%	20.0%	1.4%
PAFs (population attrib	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk (2017) ^a
fractions)	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			

TRENDS

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

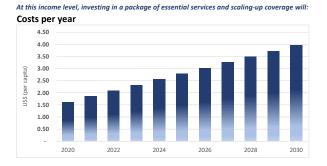


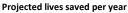
Probability of premature death from cancer per year

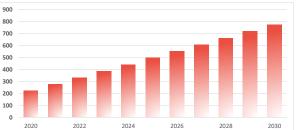


INVESTMENT CASE (2019)

*Lower middle income







KYRGYZSTAN

HEALTH SYSTEM CAPACITY

per 10,000 cancer patients					
Availability of population-based cancer	2019	PBCR	WORKFORCE		
registry (PBCR)**			^o per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	High	dedicates significant proportion of their	2019	yes
			time to cancer	2010	
of external beam radiotherapy	2019	3.1	# of radiation oncologist ^a	2019	n/a
photon, electron) a	2013	3.1	# of medical physicist ^a	2019	1.5
of mammographs ^a	2020	9.2	# of surgeons ^a	2013	2853.7
of CT scanners ^a	2020	15.3	# of radiologist ^a	2019	1069.4
of MRI scanners ^a	2020	9.2	# of nuclear medicine physician ^a	2019	4.6
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	n/a	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	3.1
NCCP (including cancer types)	2019	under development	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	23
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per	miliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	n/a			

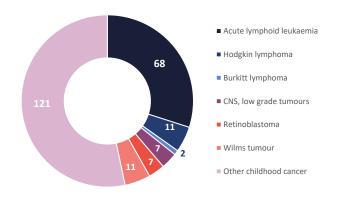
GLOBAL INITIATIVES

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

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	227
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Annual cancer cases (0-14 years old)



CAMBODIA

BURDEN OF CANCER

Total population (2019)

16,486,542

Total # cancer cases (2018)
15,362

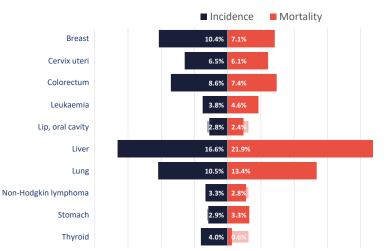
Total # cancer deaths (2018)
11,636

Premature deaths from NCDs (2016) 29,968

Cancer as % of NCD premature deaths (2016)

28.9%

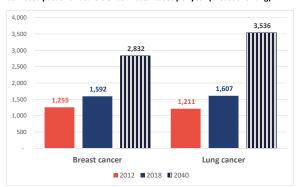
Most common cancer cases (2018)



	25.2%	5.4%	26.7%	0.5%	5.0%	2.7%
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk (2017) ^a
iractions	^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)

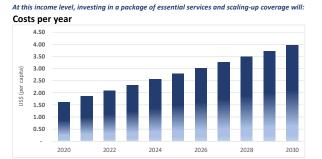


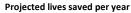
Probability of premature death from cancer per year

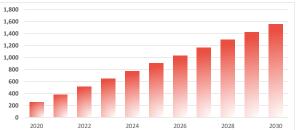


INVESTMENT CASE (2019)

*Lower middle income







553

CAMBODIA

° per 10,000 cancer patients						
Availability of population-based cancer	2019	Registration activity	WORKFORCE			
registry (PBCR)**			"per 10,000 cancer patients Available staff in Ministry of Health who			
Quality of mortality registration***	2007-2016	No coverage	dedicates significant proportion of their	2019	yes	
# of external beam radiotherapy			time to cancer # of radiation oncologist ^a	2019	n/a	
(photon,electron) ^a	2019	1.3	# of medical physicist ^a	2019	1.3	
# of mammographs ^a	2020	2.6	# of surgeons ^a	n/a	n/a	
# of CT scanners ^a	2020	12.4	# of radiologist ^a	2019	n/a	
# of MRI scanners ^a	2020	1.3	# of nuclear medicine physician ^a	2019	1.3	
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2014	360.6	
FORMULATING RESPONSE						
			# Public cancer centres per 10.000 cancer			

Integrated NCD plan	2019	operational
NCCP (including cancer types)	2019	operational
MPOWER measures fully implemented and achieved	2018	2
Cancer management guidelines	2019	yes
Palliative care included in their operational, integrated NCD plan	2019	yes
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	0
Breast cancer screening program	2019	no
Breast cancer screening program: Starting age, target population	2019	n/a

# Public cancer centres per 10,000 cancer patients	2019	1.3
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	1 cancer(s)
Pathology services	2019	generally not available
Bone marrow transplantation capacity	2019	generally not available
Palliative care availability: community/home-based care	2019	generally not available
Availability of opioids* for pain management	2015-2017	0

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

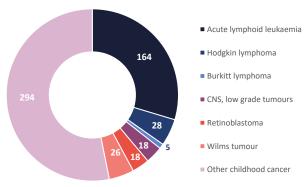
GLOBAL INITIATIVES

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	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 Early detection programme/guidelines 2019

Annual cancer cases (0-14 years old)

Defined referral system



2019

^{**}The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry
***The mortality estimates for this country have a high degree of uncertainty because they are not based on any national NCD mortality data



BURDEN OF CANCER



117,608

Total # cancer cases (2018) n/a

Total # cancer deaths (2018) n/a

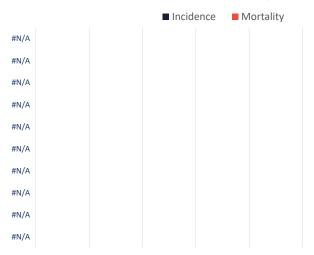
Premature deaths from NCDs (2016)

259

Cancer as % of NCD premature deaths (2016)

19.2%

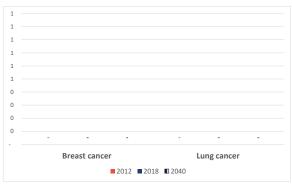
Most common cancer cases (2018)



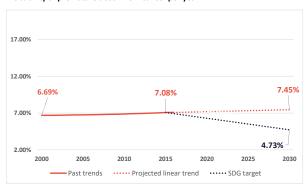


TRENDS

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

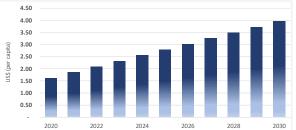


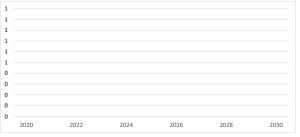
Probability of premature death from cancer per year



INVESTMENT CASE (2019)







Other childhood cancer

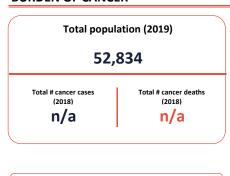
KIRIBATI

^o per 10,000 cancer patients Availability of population-based cancer	2019	No information	WORKFORCE		
registry (PBCR)**	2019	No information	° per 10,000 cancer patients		
Quality of mortality registration***	2007-2016	Low	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	ye
# of external beam radiotherapy	2019	n/a	# of radiation oncologist ^a	2019	n/
(photon,electron) ^a	2019	ii/ a	# of medical physicist ^a	2019	n/s
# of mammographs ^a	2020	n/a	# of surgeons ^a	2014	n/a
# of CT scanners ^a	2020	n/a	# of radiologist ^a	2019	n/
# of MRI scanners ^a	2020	n/a	# of nuclear medicine physician a	2019	n/s
# of PET or PET/CT scanners ^a	2020	n/a	# of medical & pathology lab scientists ^a	2013	n/s
FORMULATING RESPONSE					
integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	n/a
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally availabl
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally no availabl
Palliative care included in their operational, ntegrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally no availabl
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	1	Availability of opioids* for pain management	2015-2017	4
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per i	miliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	n/a			
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	n
Screening programme type	2019	opportunistic	Defined referral system	2019	don't knov
Screening programme method	2019	PAP smear			
Screening participation rates	2019	10%-50%	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	yes			
Defined referral system	2019			■ Acute	lymphoid leukaemia
Senned referral system	2019	yes		■ Hodgk	kin lymphoma
			2	■ Burkit	t lymphoma
				CNS, I	ow grade tumours
			3		
			3	■ Retino	bblastoma
			3		bblastoma tumour

^{**}The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry
***The mortality estimates for this country have a high degree of uncertainty because they are not based on any national NCD mortality data

SAINT KITTS AND NEVIS

BURDEN OF CANCER

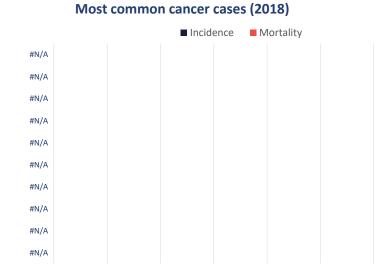


Premature deaths from NCDs (2016)

426

Cancer as % of NCD premature deaths (2016)

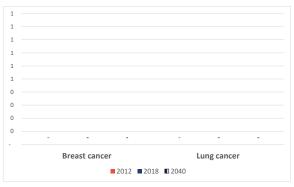
29.4%



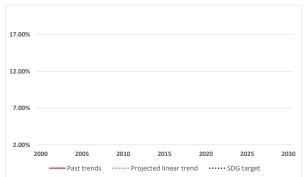


TRENDS

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



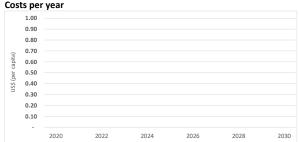
Probability of premature death from cancer per year

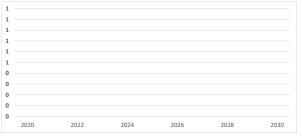


INVESTMENT CASE (2019)

*High income

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





SAINT KITTS AND NEVIS

HEALTH SYSTEM CAPACITY

per 10,000 cancer patients Availability of population-based cancer	2010	No information	WORKFORCE				
egistry (PBCR)**	2019	No information	° per 10,000 cancer patients				
uality of mortality registration***	2007-2016	Medium	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	n		
of external beam radiotherapy	2019	n/a	# of radiation oncologist ^a	2019	n/		
photon,electron) ^a	2013	11/4	# of medical physicist ^a	2019	n/		
of mammographs ^a	2020	n/a	# of surgeons ^a	2014	n/		
of CT scanners ^a	2020	n/a	# of radiologist ^a	2019	n/		
of MRI scanners ^a	2020	n/a	# of nuclear medicine physician ^a	2019	n/		
of PET or PET/CT scanners ^a	2020	n/a	# of medical & pathology lab scientists ^a	n/a	n/		
ORMULATING RESPONSE							
ntegrated NCD plan	2019	under development	# Public cancer centres per 10,000 cancer patients	2019	n/a		
ICCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(
IPOWER measures fully implemented and chieved	2018	0	Pathology services	2019	generally availab		
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally no availabl		
alliative care included in their operational, ntegrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally no availab		
of treatment services (surgery, adiotherapy, chemotherapy)	2019	1	Availability of opioids* for pain management	2015-2017			
reast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per	miliion inhabitants	per day		
reast cancer screening program: Starting ge, target population	2019	n/a					
GLOBAL INITIATIVES							
limination of Cervical Cancer			Global Initiative for Childhood Cancer				
PV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	n/		
ervical cancer screening	2019	no	Early detection programme/guidelines	2019	n		
creening programme type	2019	n/a	Defined referral system	2019	n		
creening programme method	2019	n/a					
creening participation rates	2019	,	Annual cancer cases (0-14 years old)				
arly detection programme/guidelines	2019	n/a no					
,	2023			■ Acute	ymphoid leukaemia		
efined referral system	2019	no		■ Hodgki	in lymphoma		
				Burkitt	lymphoma		
				CNS, lo	w grade tumours		
				■ Retino	■ Retinoblastoma		
				■ Wilms	tumour		
				■ Other	childhood cancer		

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

KOREA, REPUBLIC OF

BURDEN OF CANCER

Total population (2019)

51,225,321

Total # cancer cases (2018)
277,075

Total # cancer deaths (2018) **86,281**

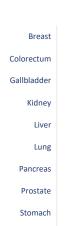
Premature deaths from NCDs (2016)

63,430

Cancer as % of NCD premature deaths (2016)

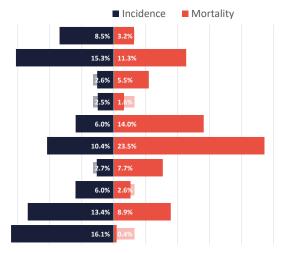
53.0%

Most common cancer cases (2018)



Thyroid

8.3%



	n/a	
PAFS (population attributable fractions)	Tobacco (2017) ^a	
	^a PAF, cancer deaths	Ł

Alcohol (2016)^a Infections (2012)^b

Obesity (2012)^b

n/a

n/a UV (2012)° 2.4%
Occupational risk
(2017)^a

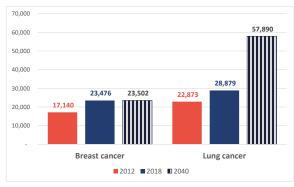
^o PAF, cancer deaths ^b PAF, cancer cases

^c PAF, melanoma cases

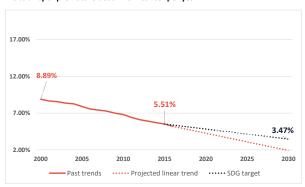
20.8%

TRENDS

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



Probability of premature death from cancer per year

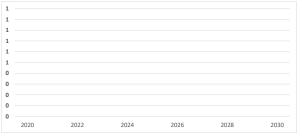


INVESTMENT CASE (2019)

*High income

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





KOREA, REPUBLIC OF

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^a per 10,000 cancer patients					
Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
registry (PBCR)**			" per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	High	dedicates significant proportion of their	2019	yes
			time to cancer	2010	
of external beam radiotherapy	2019	5.8	# of radiation oncologist ^a	2019	5.3
(photon,electron) ^a	2013	3.0	# of medical physicist ^a	2019	5.0
of mammographs ^a	2020	110.5	# of surgeons ^a	2014	570.0
of CT scanners ^a	2020	70.9	# of radiologist ^a	2019	117.3
of MRI scanners ^a	2020	54.0	# of nuclear medicine physician ^a	2019	7.1
of PET or PET/CT scanners ^a	2020	6.0	# of medical & pathology lab scientists ^a	2004	n/a
FORMULATING RESPONSE					
			# Public cancer centres per 10 000 cancer		

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	0.7
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	2669
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per	miliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	40			

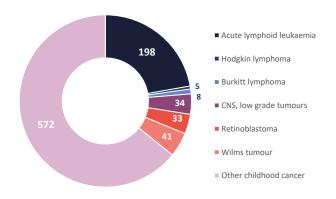
GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	62.5
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	10%-50%
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	891
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Annual cancer cases (0-14 years old)





BURDEN OF CANCER



4,207,077

Total # cancer cases (2018)
3,582

Total # cancer deaths (2018)

1,658

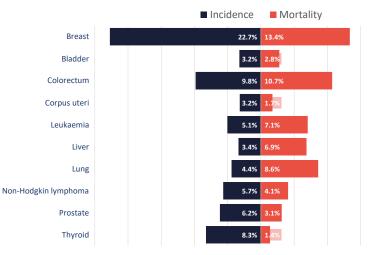
Premature deaths from NCDs (2016)

4,700

Cancer as % of NCD premature deaths (2016)

22.7%

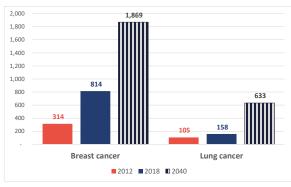
Most common cancer cases (2018)



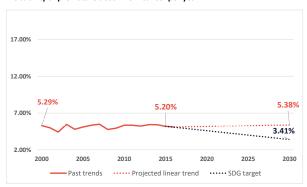


TRENDS

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



Probability of premature death from cancer per year

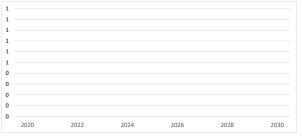


INVESTMENT CASE (2019)

*High income

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







per 10,000 cancer patients Availability of population-based cancer	2019	High quality PRCP	WORKFORCE		
registry (PBCR)**	2019	High quality PBCR	° per 10,000 cancer patients Available staff in Ministry of Health who		
uality of mortality registration***	2007-2016	Low	dedicates significant proportion of their time to cancer	2019	ye
of external beam radiotherapy	2019	11.2	# of radiation oncologist ^a	2019	n/a
photon,electron) ^a	2013	11.2	# of medical physicist ^a	2019	223.
of mammographs ^a	2020	n/a	# of surgeons ^a	n/a	n/
of CT scanners ^a	2020	273.6	# of radiologist ^a	2019	558.
of MRI scanners ^a	2020	234.5	# of nuclear medicine physician ^a	2019	139.0
of PET or PET/CT scanners ^a	2020	30.7	# of medical & pathology lab scientists ^a	n/a	n/s
ORMULATING RESPONSE					
stegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	11.2
CCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s
1POWER measures fully implemented and chieved	2018	2	Pathology services	2019	generally availabl
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally no availabl
alliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally no availabl
of treatment services (surgery, adiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	32
reast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per i	miliion inhabitants	per day
reast cancer screening program: Starting ge, target population	2019	40			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
PV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	13
ervical cancer screening	2019	no	Early detection programme/guidelines	2019	n
creening programme type	2019	n/a	Defined referral system	2019	ye
creening programme method	2019	n/a			
creening participation rates	2019		Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	n/a			
arry detection programme/guidennes	2019	yes		■ Acute	lymphoid leukaemia
efined referral system	2019	yes	27	■ Hodgk	in lymphoma
			9	■ Burkit	t lymphoma
			75	CNS, I	ow grade tumours
			7	■ Retino	blastoma
			7	■ Wilms	tumour
			8	■ 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